

Old Lyme Economic Development Study

Prepared for the Town of Old Lyme
Prepared by AdvanceCT
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AdvanceCT is a private nonprofit economic development corporation that drives job creation and new capital investment in Connecticut by working with leading companies to attract, retain and expand businesses, in close cooperation with state, regional and local partners.

AdvanceCT works in close collaboration with the Connecticut Department of Economic and Community Development (DECD) to implement high impact and inclusive economic development solutions.

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Author's Note:

This report was prepared prior to the COVID-19 public health emergency. It is important to note that economic data trends have changed and will continue to evolve as a result of the pandemic that is currently affecting every community. However, the structural findings included in this report will continue to be valuable input and serve as a baseline for strategic economic development planning initiatives.

Table of Contents

| | |
|--------------------------------------|----|
| Executive Summary | 4 |
| Demographic Trends | 10 |
| Transit and Commuting Patterns | 15 |
| Retail Analysis | 17 |
| Housing Analysis | 25 |
| Regional Industry Analysis..... | 40 |
| Supply Chain Analysis | 52 |
| Economic Trends..... | 59 |
| Opportunities | 63 |
| Appendices..... | 66 |

Executive Summary

As part of a wider economic development strategic planning process, the Town of Old Lyme contracted with Advance CT (formerly the Connecticut Economic Resource Center) to undertake a series of data collection and analyses that would inform a strategic direction for economic development efforts in Old Lyme, both in the Halls Road area and for the community generally.

These activities included a market feasibility study (contained here); as well as a focus group and SWOT analysis, and a resident and business survey, the findings from which have been provided previously in separate reports and are summarized below in the key findings section. Collectively, these data point to some clear opportunities for Old Lyme to consider as part of its economic development strategy.

Overall, without any further efforts, little development should be expected. Very little population growth is anticipated from the existing residents, as the population is aging and there are currently limited opportunities for young people or new workers moving to the area to establish themselves in Old Lyme. Similarly, most businesses do not anticipate significant expansion or hiring over the next several years, but expect their level of activity to remain about the same. Retail, similarly, is roughly at an equilibrium, and there is little need for additional shopping or dining without attracting additional patrons to support these businesses.

However, there are a number of opportunities that Old Lyme could capitalize on to change this course. The number of business establishments has been growing regionally over the past 5 years, as has the total employment in Old Lyme, with certain industry sectors anticipated to experience significant growth. Old Lyme is already a commuter town, with considerable connections to other towns in the region, and is well-positioned to capitalize on regional growth, if the town is able to create opportunities for businesses. Furthermore, growth and development in nearby towns presents not only a potential source of competition, but also an opportunity to attract visitors or future residents, if the town can position itself as an attractive destination and create opportunities to engage visitors. The majority of survey respondents support development that increases opportunities for recreation and entertainment, includes pedestrian and bike infrastructure, encourages local businesses, highlights the town's natural and cultural assets, and improves the visual appeal of a number of areas. **Any such development, of course, should be of a type and scale consistent with the unique character and cultural heritage of Old Lyme.**

Strategic Opportunities

The following represent opportunities for the town to leverage its existing assets to encourage these types of development.

1. **Highlight Old Lyme's natural amenities.** The town's natural beauty, location, and beaches are cited frequently as some of the town's most important attributes. Making these amenities accessible through bike and pedestrian infrastructure, wayfinding, and support services can provide residents and visitors with attractive amenities that create an appealing

destination. The town's accessibility via I-95 should increase its draw for visitors, shoppers, and potential residents alike.

2. **Support outdoor recreation.** Residents consistently cite outdoor recreation as important. In particular young people and seasonal residents indicate interest in additional activity and entertainment options in Old Lyme. Walking, biking, and additional town-supported recreation activities can increase foot traffic and attract residents and visitors to the area. Festivals or special events can also provide an occasion to enjoy these amenities.
3. **Build on the arts and culture traditions and local attractions in Old Lyme to create a unique destination.** The recent growth and development of nearby towns provides both potential competition as well as an opportunity to share in this growth, but in order to compete, people need to have a purpose for visiting Old Lyme. Generic dining and retail is unlikely to locate in Old Lyme, nor be successful, without significant additional foot traffic. However, building a community gathering space with attractions, entertainment, dining and retail options can create a unique destination. The physical layout of the town and the visitor experience, combined with support for the types of enterprises the town would like to attract and a branding campaign promoting the arts and culture tradition of Old Lyme, and its New England charm and character, can help create such a locale.
4. **Encourage support of local businesses.** In the resident and business survey, business owners as a group were the least likely to say the town does a good job of communicating. While the survey provides some initial guidance, this represents an opportunity for the town to reach out for more detail on the needs of the existing local businesses. What is working well for them? What are their particular challenges? And what steps can the town take to support the existing businesses and encourage their growth? A significant number of business owners indicate they chose to locate in Old Lyme because of family or personal reasons, or because it was their home; furthermore, a number represented small or home-based businesses. Potential support might include: help with the particular needs of home-based businesses; providing opportunities for training and skills development; giving marketing support; organizing networking opportunities; assistance in navigating local government; and connecting businesses to related services, such as attorneys, accountants, marketing or IT professionals, etc. For larger companies, support could include understanding their anticipated space, infrastructure, workforce, and other needs and providing appropriate resources to address potential issues. A package or website with these support tools can help businesses feel welcome, as well as connect to resources quickly. "Buy local" campaigns, periodic "business spotlight" articles, and other engagement tools can help increase awareness of local businesses and highlight their successes. **Some survey respondents suggested that retail and commercial areas could benefit from beautification efforts and improved accessibility.** An active, engaged merchants' association should be a key partner with the town in promoting cooperation and mutual support among businesses to improve the commercial corridors and attract patrons.
5. **Create experience-centered dining, entertainment, and retail spaces, particularly in the Halls Road area.** Over 80% of survey respondents supported additional development in the Halls Road area, including additional dining and entertainment options; more attractive signage and wayfinding; and pedestrian and bike accessibility. Younger and working-age

respondents were more likely to favor these amenities, highlighting the importance of these to attracting a diverse population to Old Lyme. Focus on creating a unique, experiential destination (allowing for cultural exploration and activity-based entertainment) with increased foot traffic to support local businesses is key to the long-term success of Halls Road. A planning exercise to consider the physical and design elements that would promote a positive visitor experience and consider the appropriate layout and density of the area, perhaps incorporating some of the area's natural amenities (such as the waterfront at both ends of Halls Road) and housing opportunities, may be appropriate.

6. ***Provide diverse housing options.*** While support for additional housing development was mixed, there was some acknowledgement of the need for more diverse housing options, including smaller homes which would provide opportunities for young people and seniors looking to downsize. There is evidence that Old Lyme's lack of housing diversity is constraining its growth. Furthermore, additional housing options could help bring the density needed to support the additional dining, entertainment, and retail options desired by the residents. A variety of housing types, sizes, and price points should be considered.
7. ***Capitalize on growth in the region to attract new residents, visitors, and businesses.*** While indications are that endogenous growth in Old Lyme may be limited, there are certain areas and industries in the region that are prospering. Identifying these zones of growth and assessing how they might fit with Old Lyme's vision can provide opportunities for expansion and collaboration.
8. ***Clarify the regulatory process.*** Residents and businesses both indicated that regulations were an issue. To facilitate the growth of the type and character desired, town officials should investigate these issues and work to improve the process. This does not necessitate a reduction in regulation; the Town should provide clear direction regarding the nature of development its constituency supports. However, it may be necessary to communicate this guidance clearly, to make the process efficient, consistent, and easy to navigate, or to modify processes to facilitate the type of development that is desired, as well as to give a clear and timely response to uses that may not be a good fit.
9. ***Facilitate the growth of supply chain and demographic support businesses.*** In addition to consumer-facing retail, Old Lyme can promote growth by considering the appropriate location and scale of non-retail commercial businesses, such as supply chain (business to business) and demographic support businesses. Demographic support businesses, such as health care and social services, may provide needed support for the town's changing demographic and help fortify the commercial base. Additionally, Old Lyme should consider opportunities to attract companies that support key industries that are growing in the region, which might be a good fit for the town's commercial/industrial districts. The Town should consider the appropriate location and scale for these companies, the town's advantages, which companies or industries have existing connections to the town, and whether the town has the appropriate workforce and other resources. The town should also ensure that real estate and zoning regulations are appropriate for these businesses' growth.

Developing a strategic plan for addressing these topics can ensure the Town is well-positioned to capitalize on these opportunities, as well as that the nature of development

in Old Lyme is befitting the town's unique placement and preserving its New England character.

Key Data Findings

Key findings from the data collection process include:

Resident and Business Survey

- Characteristics of Old Lyme that were most important to residents consistently included natural beauty, beaches, and open space; public schools and public safety; and New England charm, arts and culture.
- The majority of respondents showed support for specific types of development, especially dining, entertainment and retail options; and improved infrastructure, including pedestrian and bike accessibility and more visually attractive areas. Halls Road was the most popular area for such development, with over 80% of respondents supporting some type of additional development in that area.
- Older respondents were most likely to indicate no development was needed, while younger respondents were more likely to indicate additional dining and entertainment options were desired.
- Support for additional residential development was mixed.
- Businesses indicated that the biggest challenges to operating in Old Lyme were lack of opportunities for young people, declining population, and lack of a “town center” with dining and entertainment options.
- Businesses would like to see the town do more to encourage local and out-of-town patrons to shop locally.

Focus Group and SWOT analysis

- Strengths identified in the sessions included town fiscal stability, schools, community character and natural resources; while weaknesses included lack of diverse housing options, lack of pedestrian and outdoor recreation infrastructure, and lack of a plan for high-potential areas.
- Opportunities identified included improvement and/or development of high-potential areas; a plan for increasing housing diversity; and investment in pedestrian infrastructure, public spaces, and outdoor recreation.
- Threats included state economic and political challenges; economic growth in nearby towns; climate change; and perceived resistance to change.

Demographic Trends

- The population of Old Lyme is older, more educated, and has higher household incomes than the surrounding counties or the state as a whole.

Transit and Commuting Patterns

- Old Lyme is a commuter town, with strong connections to many other municipalities in the region. As such, Old Lyme may have opportunities to capitalize on growth that occurs regionally.

Retail Analysis

- There is very little need for additional convenience retail, unless additional development occurs in the area that would increase foot traffic. However, certain neighborhood retail sectors could be a good fit for Old Lyme, including clothing stores; other general merchandise stores; home furnishings; jewelry, luggage, and leather goods; and restaurants; provided they are of the character and type to create the unique shopping experience that is likely to make local retail successful.

Housing Analysis

- Old Lyme's housing stock is larger and more expensive, with fewer rental units, than the surrounding geographies. There is evidence that lack of housing diversity may be constraining the town's growth, particularly among younger residents and those with a single-earner household (unmarried/divorced residents).
- Household formation driven by endogenous population growth is projected to be slow over the coming years, so the most significant growth opportunities will originate primarily from attracting new workforce moving to the region, which may also require more diverse housing options.
- Among the top-growing industries regionally, four of the six industries have median wages that would not support the median homeownership cost in Old Lyme on a single income, and three of the six could not afford homeownership in Old Lyme even in a two-earner household.

Regional Industry Analysis

- Two core industries, Transportation Equipment Manufacturing (NAICS 336) and Insurance Carriers and Related Activities (NAICS 524) are strong regionally and comprise key components of the state economy.
- Supply chain and support industries, including Fabricated Metal Product Manufacturing (NAICS 332); Machinery Manufacturing (NAICS 333); Professional, Scientific, and Technical Services (NAICS 541); and Management of Companies and Enterprises (NAICS 551) are important drivers of the regional economy as inputs or supports for the core industries. These industries all have at least a thousand workers in the region, above-average wages and have experienced growth nationally.
- Two demographic support industries are driven by services for which there is a growing need: Ambulatory Health Care Services (NAICS 621) and Social Assistance (NAICS 624).

Supply Chain Analysis

- Significant portions of the region's major industries make large purchases outside the region; supply-chain activities including building, forging, or manufacturing; as well as professional, scientific, and technical services; and management of companies and enterprises may present growth or recruitment opportunities.
- Many of these suppliers are within the economic base industry group, meaning they already have a strong presence in the region, so leakages represent viable growth opportunities because infrastructure on which to build, such as talent and logistics, already exists.

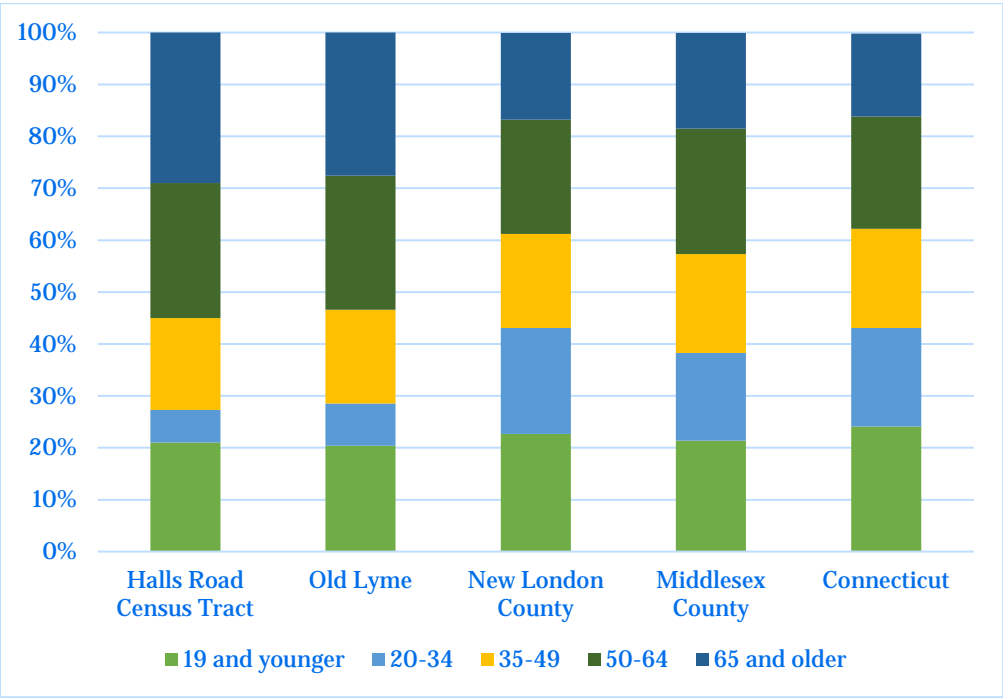
Economic Trends

- Old Lyme has a higher relative concentration of employment in the Professional, Scientific, and Management, and Administrative and Waste Management Services sectors and the Finance and Insurance, and Real Estate and Rental and Leasing sectors than the surrounding areas.
- Old Lyme has experienced a lower unemployment rate than at the state or national level, although all three have decreased in recent years, while the number of business establishments in the region has been increasing.

Demographic Trends

The population of Old Lyme is notably older than New London and Middlesex Counties, or the state as a whole. As illustrated in Figure 1, while the portion of children (19 and younger) is only slightly smaller than the counties or the state, Old Lyme has a very small portion of residents in the 20-34 age range, at 8% of the population compared to 19% statewide. In the over 50 age range, Old Lyme has a comparably large population, with those in the 50-64 age range comprising 26% of the population of Old Lyme (compared to 22% statewide) and those 65 and over constituting 28% of the population of Old Lyme, compared to 16% statewide.

Figure 1: Population by Age
Source: US Census, American Community Survey Five-Year Estimates, 2013-2017

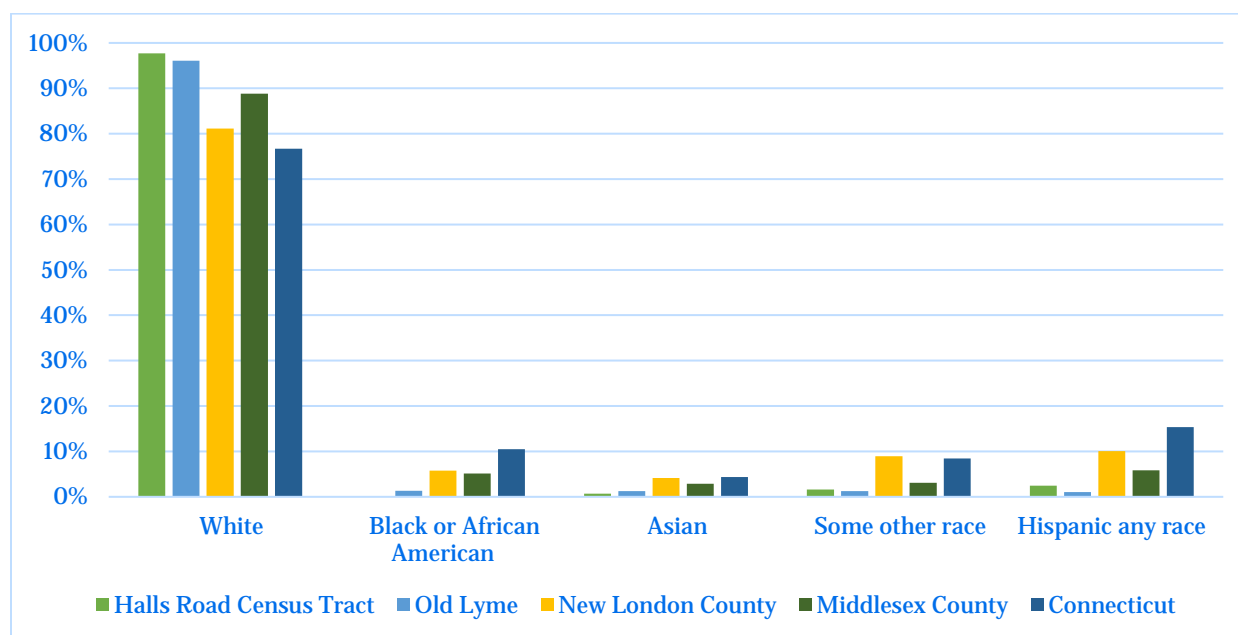


Looking at population by race (Figure 2), Old Lyme is more homogenous than New London and Middlesex Counties and the state. Statewide, 77% of the population is white, while that figure is 81% in

New London County, 89% in Middlesex County, and 96% in Old Lyme. In Connecticut, 10% of the population identifies as black or African American, 4% as Asian, and 8% some other race, while those groups each represent 1% of the population of Old Lyme. Similarly, 1% of the population of Old Lyme identifies as Hispanic (of any race), while that figure is 10% in New London County, 6% in Middlesex County, and 15% statewide.

Figure 2: Population by Race and Ethnicity

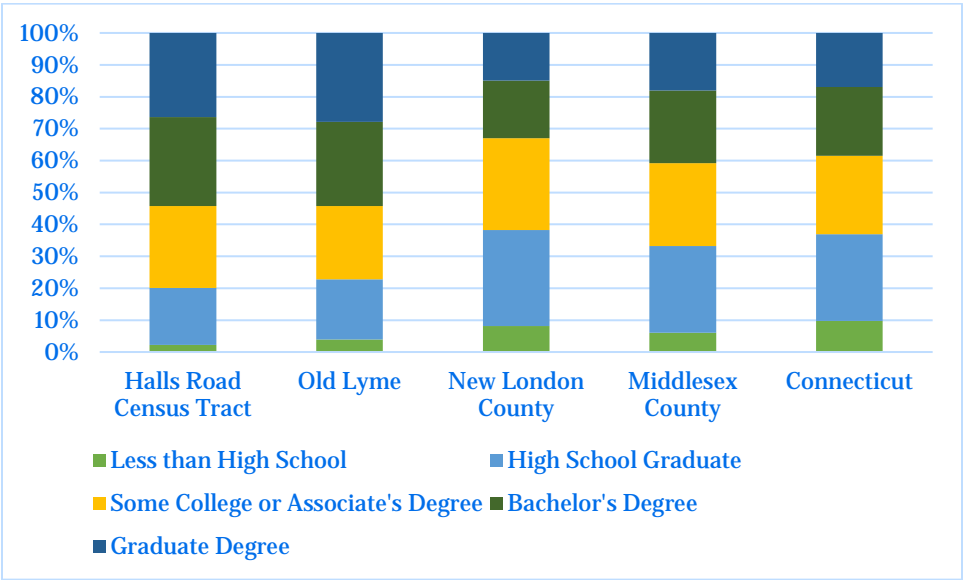
Source: US Census, American Community Survey Five-Year Estimates, 2013-2017



The residents of Old Lyme are also more highly educated than the other geographies. As shown in Figure 3, in Old Lyme, 54% of the population has at least a Bachelor's degree, and 28% has a graduate degree, compared to 39% and 17% respectively, statewide. In New London County, 33% have at least a

Bachelor’s degree and 15% have a graduate degree, and in Middlesex County 41% have at least a Bachelor’s degree and 18% have a graduate degree.

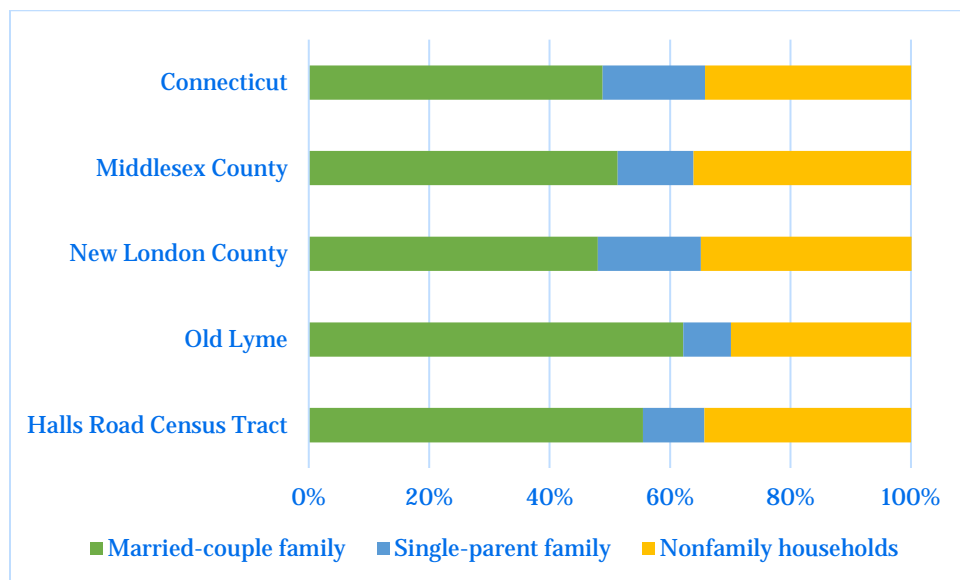
Figure 3: Population by Educational Attainment
Source: US Census, American Community Survey Five-Year Estimates, 2013-2017



Old Lyme is also slightly different from the surrounding counties and Connecticut in terms of its households’ family status, as seen in Figure 4. Old Lyme has a larger portion of married-couple families, and a smaller portion of single-parent families and nonfamily households, than the other geographies. In Old Lyme, 62% of households are married-couple families, compared to 48% in New London County, 51% in Middlesex County, and 49% in Connecticut.

Figure 4: Households by Family Status

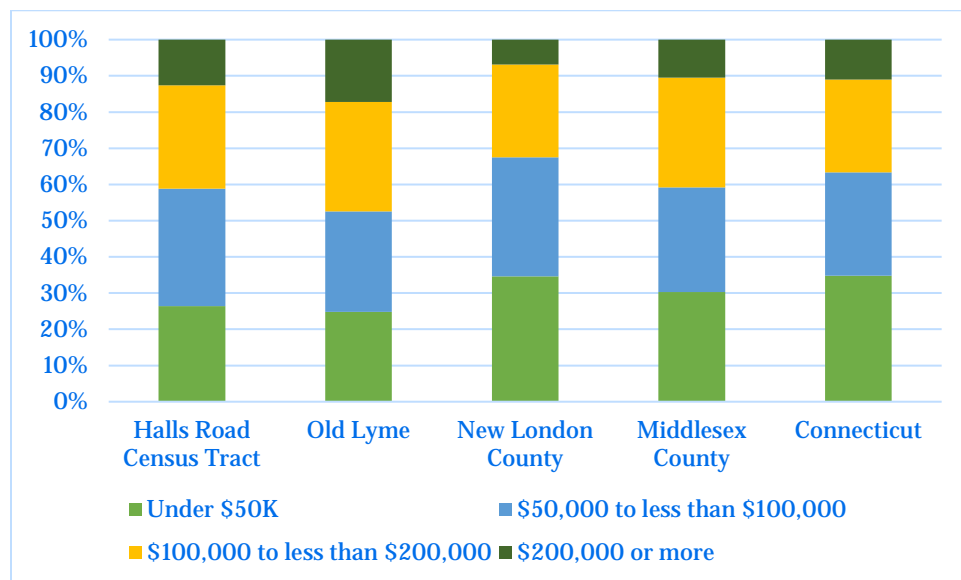
Source: US Census, American Community Survey Five-Year Estimates, 2013-2017



As may be expected given the older age, higher educational attainment, and larger portion of married-couple families (which would be more likely to have two incomes than single-parent families), the household incomes in Old Lyme are also higher than the surrounding geographies (Figure 5). In Old Lyme, 30% of households earn \$100,000 to less than \$200,000 per year, compared to 26% in New London County, 30% in Middlesex County, and 26% in Connecticut. Households earning \$200,000 or more per year comprise 17% of households in Old Lyme, compared to 7% of households in New London County, and 11% of households in Middlesex County and the state.

Figure 5: Household Income

Source: US Census, American Community Survey Five-Year Estimates, 2013-2017

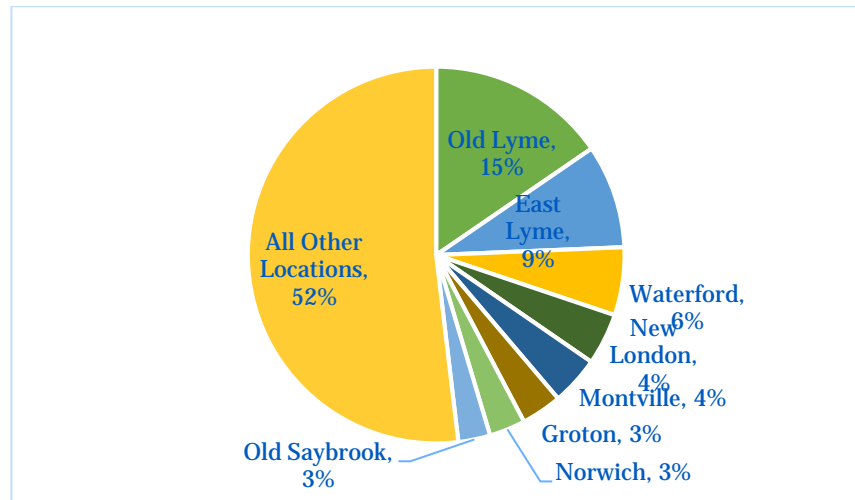


Transit and Commuting Patterns

In looking at commuter patterns, Old Lyme has connections with a large variety of towns, with no single area having a large concentration. Among employees who work in Old Lyme, 15% also live in Old Lyme (Figure 6), nine percent live in East Lyme, 6% in Waterford, and 4% in each of New London and Montville. Groton, Norwich, and Old Saybrook each have 3%, and no other town is home to more than 3% of Old Lyme workers.

Figure 6: Where workers live who are employed in Old Lyme

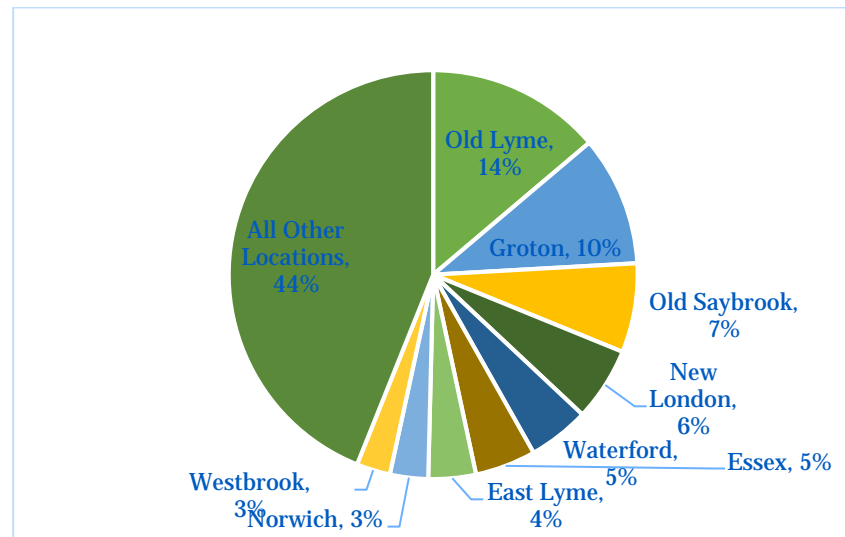
Source: US Census Bureau, On the Map, 2017



Similarly, Old Lyme residents also work in a wide range of towns (Figure 7). Fourteen percent of Old Lyme residents also work in Old Lyme. Ten percent travel to Groton for work, followed by 7% to Old Saybrook, 6% to New London, and 5% each to Waterford and Essex.

Figure 7: Where Old Lyme Residents Work

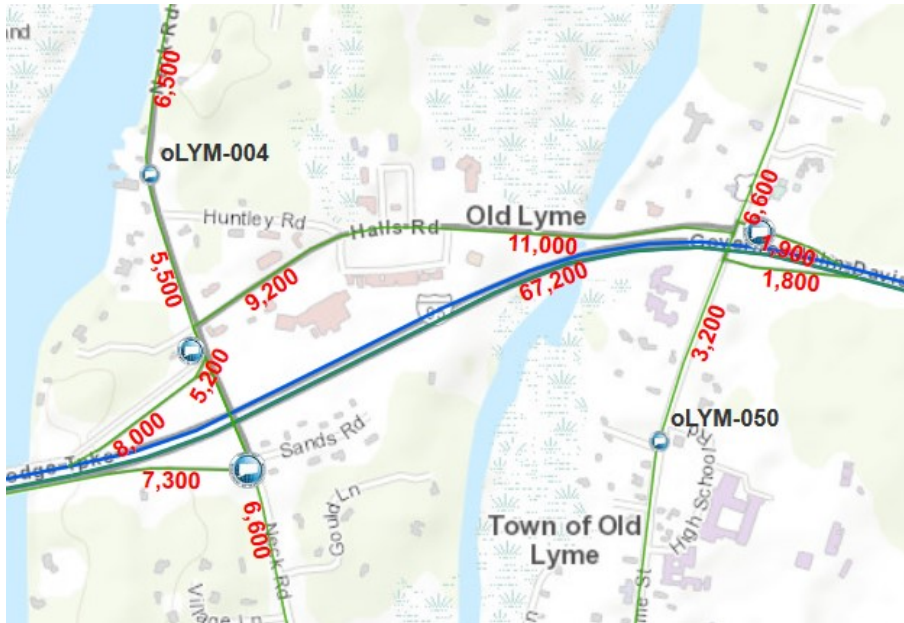
Source: US Census Bureau, On the Map, 2017



With regard to transportation patterns in Old Lyme, Halls Road has higher traffic than most other areas. The annual average daily traffic (AADT) on Halls Road is 9,200 on the western portion of Halls Road and 11,000 on the eastern portion (see Figure 8). Nearby, Neck Road receives 5,500 average daily traffic just north of Halls Road, and 6,600 just south of I-95, while Lyme Street has 3,200 AADT just south of I-95 and 6,600 just north of Halls Road. The section of I-95 just south of Halls Road has an AADT of 67,200.

Figure 8: Traffic Count at Halls Road, Old Lyme

Source: State of Connecticut Department of Transportation, 2018



Retail Analysis

A retail sales analysis utilizes consumer expenditure data to determine whether an area is over- or under-served by different categories of retail establishments. A retail sales surplus, where retail sales are higher than what would be anticipated given the local population, indicates that the area is attracting a consumer base beyond residents. A surplus essentially represents a draw of individuals living outside the respective geography to the location because of an existing retail advantage. Developing complementary industries to those with a consumer surplus can be a good economic development strategy for a municipality.

On the other hand, a sales leakage means demand for goods and services is not being met locally and so residents are shopping for goods and services elsewhere. There can be a number of reasons for sales leakage; for example, it could mean that there is a very strong competitor in a nearby area. However, areas of sales leakage often represent retail industries where there is opportunity to capture consumer expenditure that is leaving the area and to capitalize on a mismatch of demand and supply.

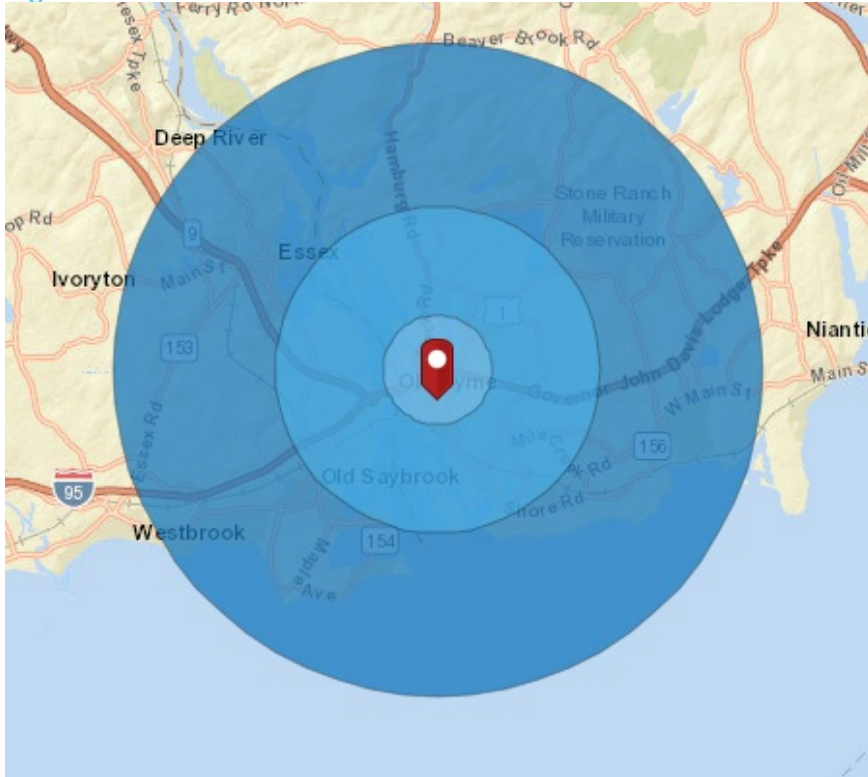
Once retail opportunities are identified, an area can target retailers to determine if their site selection criteria match the demographics of the community and identify where those retailers could locate if there is a match. The following data provides a retail market profile for areas within a certain radius of the Halls Road district in Old Lyme.

Given the changing nature of retail nationally due to online shopping, the shoreline setting and historic, coastal feel of Old Lyme, as well as the presence of larger shopping centers in New London and other areas, the **retail segments with the greatest potential for success in the Halls Road area are likely smaller shops with goods and services that cater to the unique demographics of the population living in the immediate vicinity, retailers that create a unique shopping experience, or businesses that provide an entertainment factor.** The analysis below identifies retail opportunities as the market currently exists; development of additional housing or commercial space (such as office space) that would provide additional traffic to the immediate vicinity would increase the retail potential of any specific site.

Convenience Retail (1-mile trade area)

The area within a one-mile radius of a shopping center is the domain of convenience retail. These are goods and services for which customers are not willing to travel very far. Shops such as convenience stores, pharmacies, small grocery, coffee shops, and the like tend to be smaller and rely on local traffic to support their enterprise.

Figure 9: Halls Road; areas within a 1, 3, and 6-mile radius



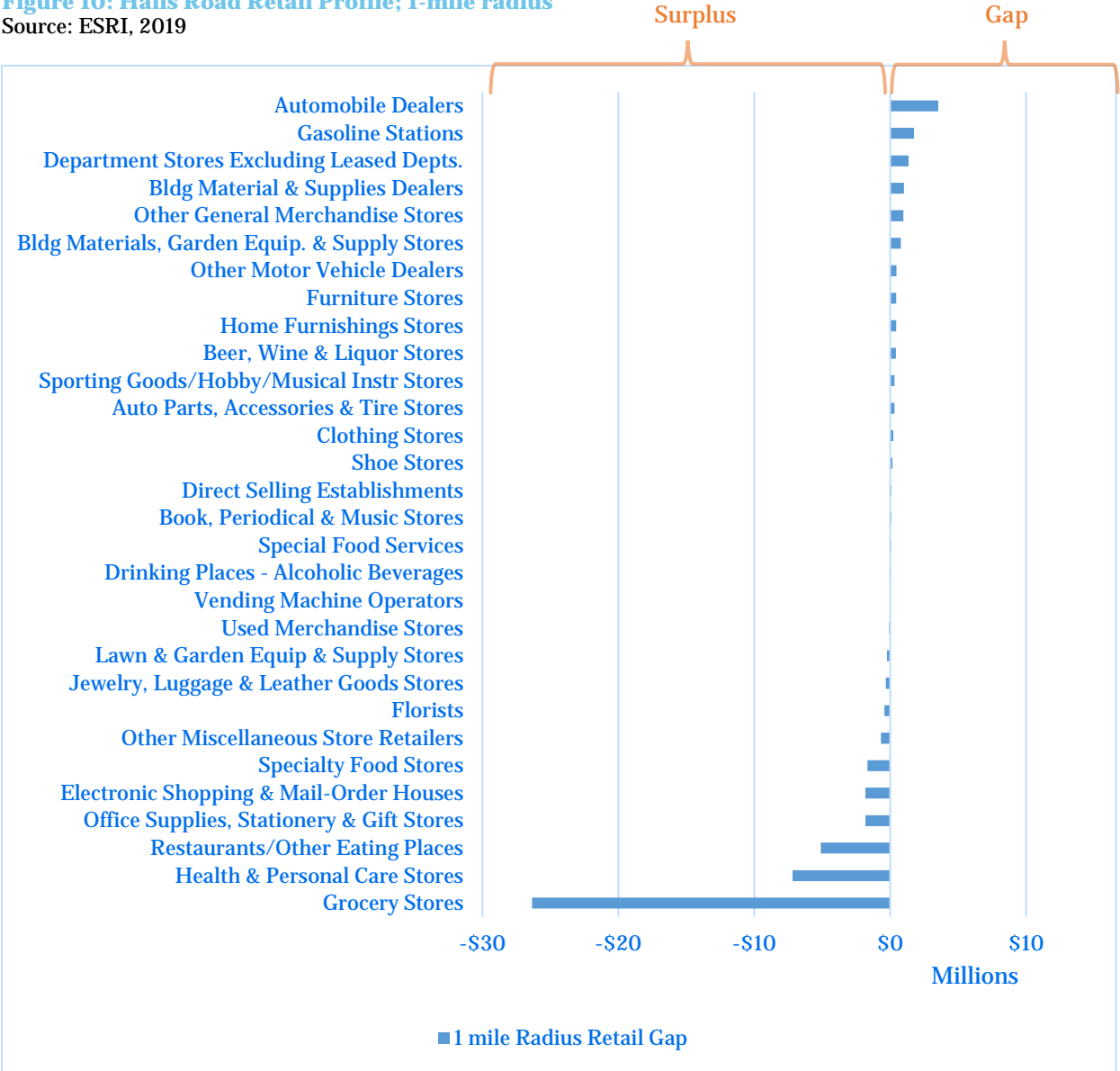
The area within a one-mile radius of Halls Road encompasses a population of 944, or 423 households. The median disposable household income was \$62,007 as of 2017, and per capita income was \$49,665.¹

As can be seen in Figure 10, within a one-mile radius of the Halls Road area, the retail gap (amount of unmet demand) is very small, and some segments have a retail surplus, meaning sales are higher than expected and shoppers from outside the immediate area are being attracted. Additionally, those retail segments that do have a larger gap (including automobile dealers, building and garden suppliers, and home furnishings stores) tend to be larger stores and have a much larger trade area, and are not suited to convenience retail. While there is very little unmet demand in the convenience-oriented market, additional retail could be supported if shoppers are drawn from outside the immediate area. In

¹ ESRI 2019 Retail MarketPlace Profile for Halls Rd, Old Lyme, CT.

addition, new development in the vicinity (such as office space or housing) that would attract additional shoppers to the immediate area could increase demand for convenience-oriented retail, which might allow additional establishments to be supported.

Figure 10: Halls Road Retail Profile; 1-mile radius
Source: ESRI, 2019



Surplus refers to sales higher than expected within the trade area (one-mile radius); meaning consumers are attracted from outside the immediate area. Gap means sales lower than expected, and consumers are making purchases outside of the trade area.

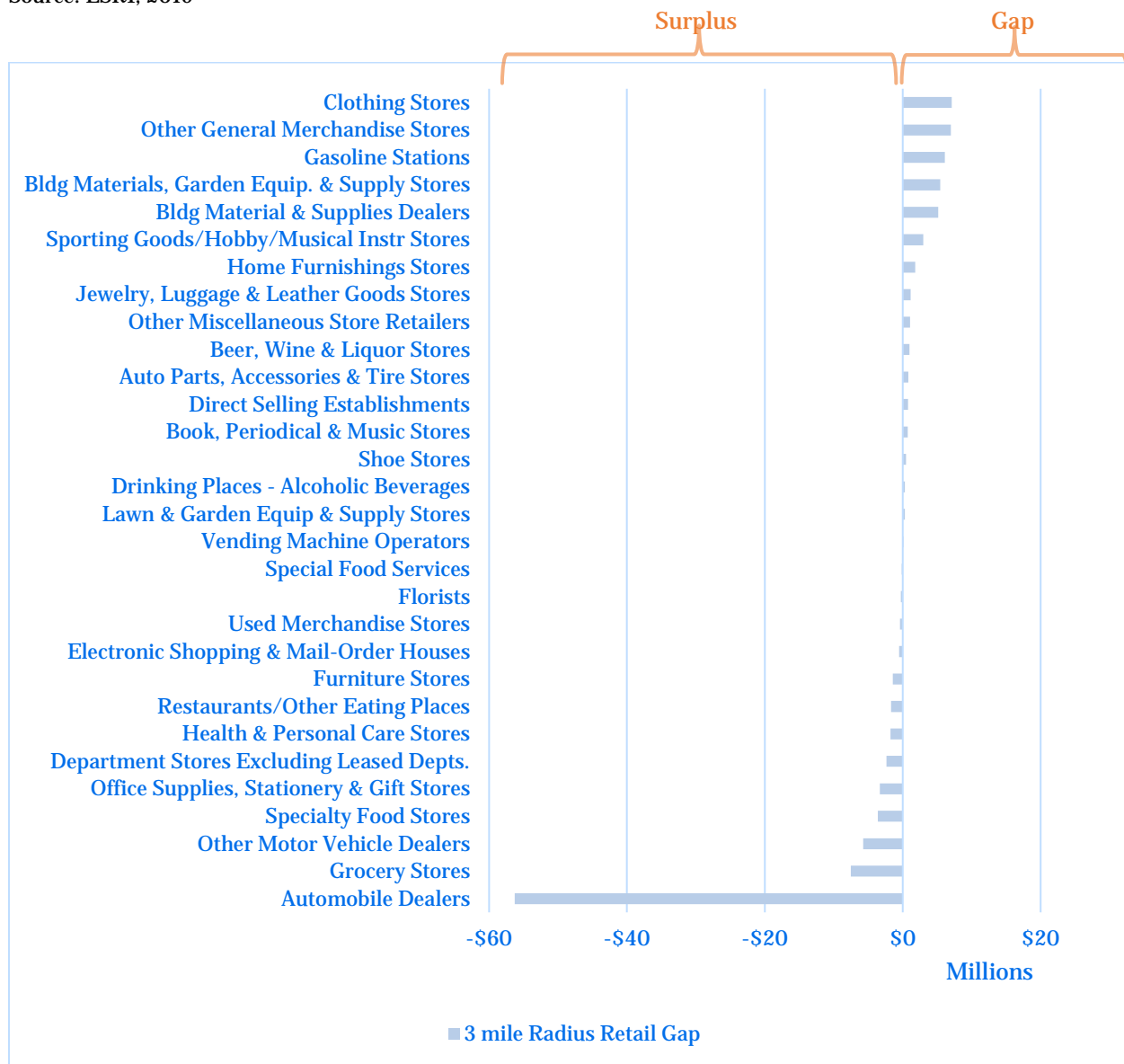
Neighborhood Retail (3-mile trade area)

This geography, encompassing a 3-mile trade area around Halls Road, includes a population of 8,078 comprising 3,367 households, with a median disposable household income of \$61,833 and a per capita income of \$49,621.² Retail that typically has a trade area in this geographic range includes neighborhood shopping centers which might host, for example, a grocery store with some surrounding shops such as a café, bakery, bank, pharmacy, dry cleaner or laundromat, real estate offices, personal care stores, and similar types of businesses.

Within 3 miles of the Halls Road area, neighborhood retail such as grocery stores, office supply stores, and restaurants already have a surplus (meaning sales are higher than expected given the population), while others, such as liquor stores, drinking places, florists, and specialty foods, are more or less in balance. However, a few categories, including clothing stores; general merchandise stores; jewelry, luggage, and leather goods stores; and other miscellaneous retailers, are consistent with those that would typically be found in a moderately-sized neighborhood shopping center and have a gap that could potentially support additional retailers in the area. That said, because of the town's location on the waterfront, the land area encompassed by the 3-mile radius is slightly smaller than it would be further inland, and thus there are fewer consumers than would typically be included. Smaller stores carrying convenience goods or with a unique attraction will be most likely to be successful.

² ESRI 2019 Retail MarketPlace Profile for Halls Rd, Old Lyme, CT.

Figure 11: Halls Road Retail Profile; 3-mile radius;
Source: ESRI, 2019



Surplus refers to sales higher than expected within the trade area (three mile radius); meaning consumers are attracted from outside the immediate area. Gap means sales lower than expected, and consumers are making purchases outside of the trade area.

Community Retail (6-mile trade area)

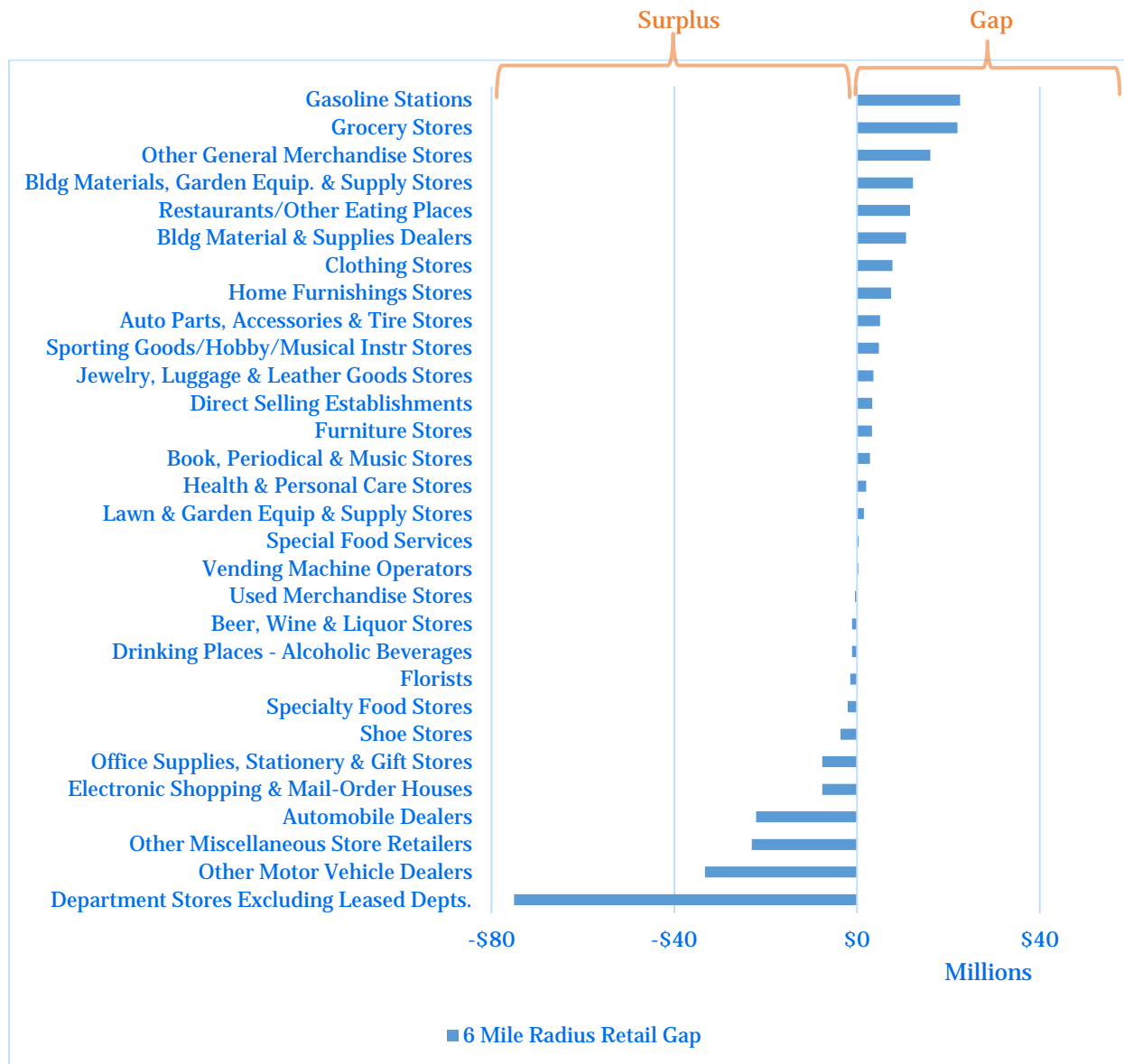
The largest trade area examined (6 miles) encompasses a population of 35,861, or 14,312 households, with a 2018 median disposable household income of \$62,031 and a per capita income of \$46,481.³

Anchor retail that typically has a trade area in this “community retail” range includes larger grocery and drug stores, discount stores, and general merchandise, apparel, electronics, home goods, and sporting goods stores. These would be supported by several smaller stores including banks, bakeries, cafes, dry cleaners, florists, specialty food markets, pharmacies, personal care stores, family restaurants, hardware or electronics stores, gift shops, home furnishings, ice cream, jewelry, or liquor stores.

In this larger trade area there is a retail gap in a number of categories; however, while this can sometimes represent an opportunity for large, well-anchored destination shopping, the trade area encompassed here does not have the population to support some large stores of this kind such as home improvement or large discount stores; furthermore, many large retailers are decreasing the number and size of their existing store offerings. Additionally, portions of this trade area lie close to large metropolitan areas (such as New London) with a greater variety of retail offerings where shoppers likely make their purchases, so this may account for the gap. Additional retailers in Old Lyme (particularly in those categories where there are existing large retailers, such as grocery) would be unlikely to capture a large portion of the market. As such, many of these retail offerings would be unsuitable for Old Lyme, despite the sizeable sales leakage. **However, stores with a niche market or that appeal to the nature and scale of Old Lyme’s character could still be a good fit.**

³ ESRI 2019 Retail MarketPlace Profile for Halls Rd, Old Lyme, CT.

Figure 12: Halls Road Retail Profile; 6-mile radius
Source: ESRI, 2019



Surplus refers to sales higher than expected within the trade area (five mile radius); meaning consumers are attracted from outside the immediate area. Gap means sales lower than expected, and consumers are making purchases outside of the trade area.

Summary

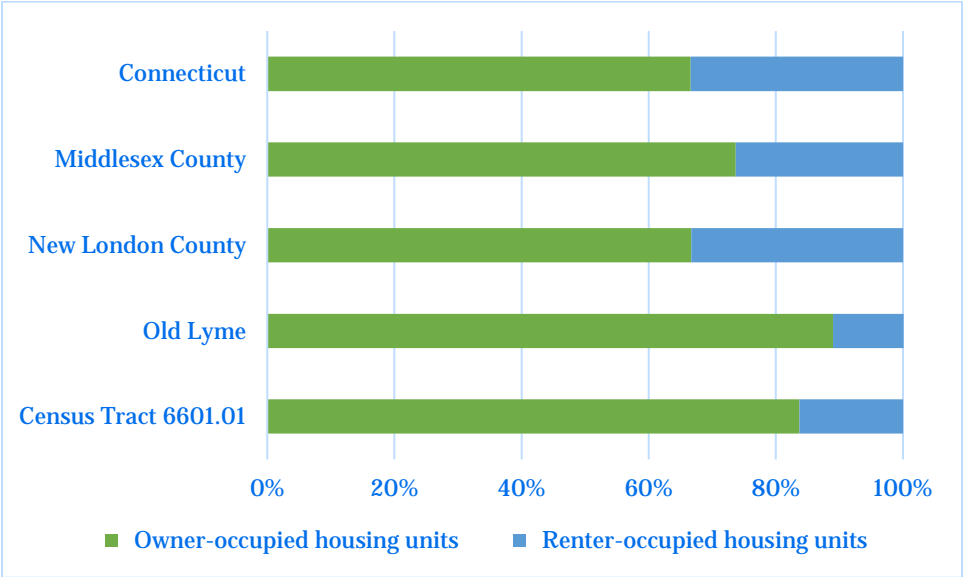
Based on the current population and existing supply and demand in the local trade area, there is very little need for additional convenience retail, unless additional development occurs in the area that would increase foot traffic. Furthermore, the area does not have the population to support a large community shopping center. However, several neighborhood retail sectors may be a good fit for Old Lyme. They are all experiencing leakage (meaning that the demand in the region is higher than supply, and residents are shopping elsewhere for these goods and services), and they all have potential to provide the type of unique shopping experience that is likely to make local retail successful. These sectors include clothing stores; other general merchandise stores; home furnishings; jewelry, luggage, and leather goods stores; and restaurants.

Housing Analysis

Existing Housing Stock

Old Lyme has a higher proportion of owner-occupied units, and a smaller proportion of rental units, than the surrounding geographies.⁴ Eighty nine percent of housing units in Old Lyme are owner occupied, while 11% are rental units. Statewide, 67% of units are owner-occupied, while that figure is 74% in Middlesex County and 67% in New London County. In Census Tract 6601.01, which encompasses roughly the northwest half of Old Lyme (including the Halls Road District), 84% of units are owner-occupied and 16% are rental units.

Figure 13: Housing Stock by Occupancy Type, 2017
Source: US Census, American Community Survey Five-Year Estimates, 2013-2017

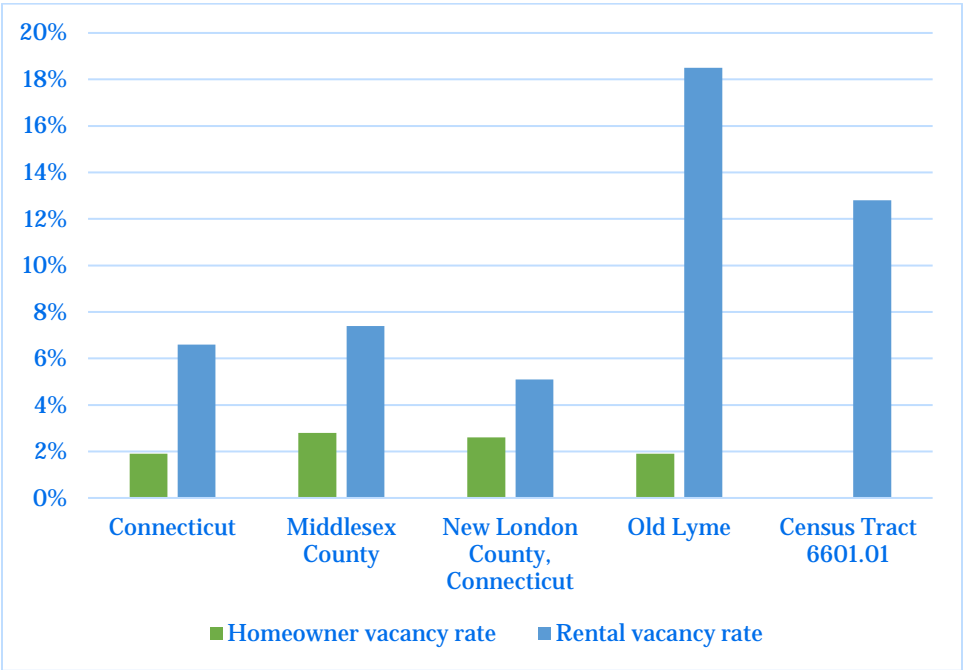


As of 2017, Old Lyme’s homeowner vacancy rates were similar to the surrounding geographies, while vacancy rates for rental units were much higher. Both Old Lyme and Connecticut had a 1.9% homeowner vacancy rate, while Middlesex and New London Counties were at 2.8% and 2.6%, respectively. For rental units, vacancy rates ranged from 5.1% to 7.4% in Connecticut and the two counties, **while Old Lyme’s rental vacancy rate was 18.5%**. The homeowner vacancy rate in Census Tract 6601.01 was near zero, while the rental vacancy rate was 12.8%. These vacancy

⁴ Unless otherwise specified, “housing stock” refers to all housing types, whether owned or rented, single family or multifamily, etc.

calculations exclude the 1,446 units (28.7% of Old Lyme’s housing stock) which are for occasional or recreational use (vacation homes). Units which can only be occupied seasonally are also excluded.⁵

Figure 14: Housing Vacancy Rates, 2017
Source: US Census, American Community Survey Five-Year Estimates, 2013-2017



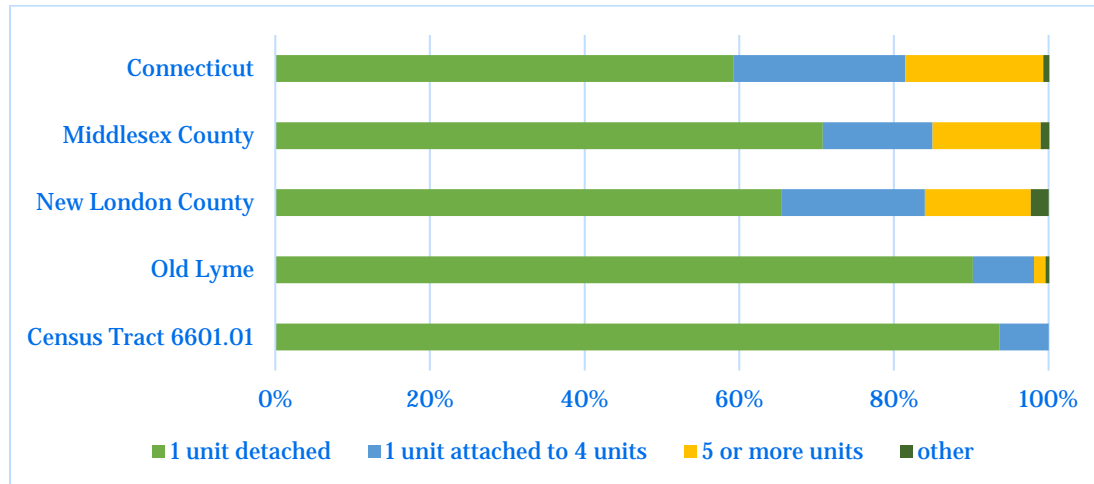
The composition of Old Lyme’s housing stock is also distinct from the two counties and the state as a whole, as seen in Figure 15. Old Lyme’s housing stock predominantly consists of detached, single-family homes (90%), with smaller numbers of attached, single-family or small multifamily homes (consisting of 4 units or fewer; 8%), and very few larger complexes (consisting of 5 or more units; 2%). Connecticut, New London, and Middlesex County have 59%, 66%, and 71%, respectively, of their housing stock as

⁵ The higher portion of vacation and seasonal homes in Old Lyme would not likely impact the homeowner vacancy rate calculation, since units intended for seasonal occupancy only, and units which can be occupied year-round but are vacant due to occasional use (such as vacation homes), are excluded from the calculation per US Census Bureau definitions. **However, the higher portion of vacation homes could potentially impact the rental vacancy rate, if these vacation homes are regularly listed as available for rent.** Furthermore, Old Lyme has a very small number of renter-occupied units overall, making the denominator in the vacancy rate calculation relatively small. In calculating rental vacancy rates, units intended for seasonal occupancy are excluded from the calculation. Units listed for either sale or rent are counted as rental units. A table showing the breakdown of housing units and these calculations can be found in Appendix A.

detached, single-family homes. These three geographies have correspondingly larger portions of attached, single-family to 4-family housing units, as well as larger (5 or more units) developments.

Figure 15: Housing Stock by Building Type, 2017

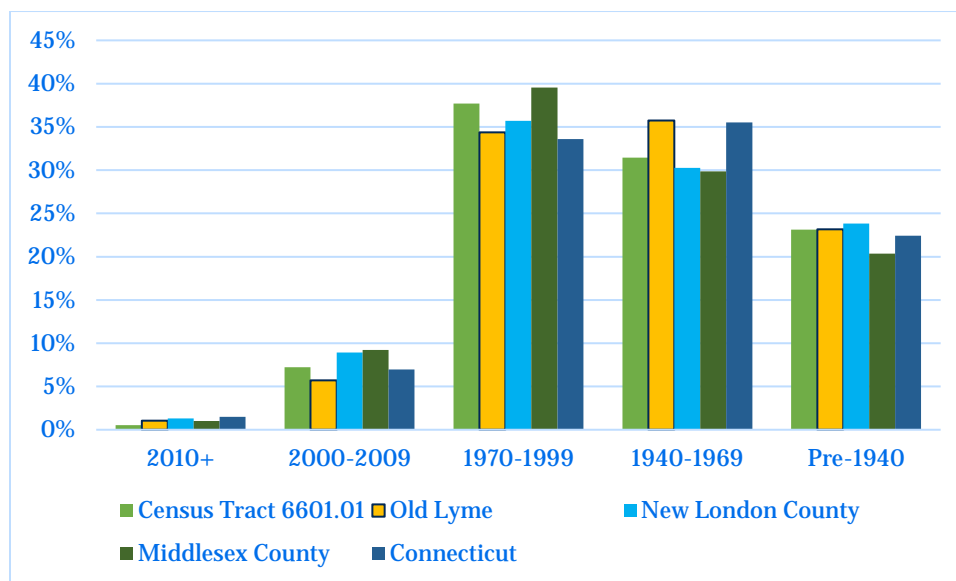
Source: US Census, American Community Survey Five-Year Estimates, 2013-2017



Overall, Old Lyme's housing stock is of comparable age to the surrounding counties and the state. Old Lyme has a slightly higher portion of housing units constructed from 1940-1969, and marginally fewer in 1970-1999 and 2000-2009 and 1970-1999, but overall, the age of the housing stock is not notably different from the surrounding area.

Figure 16: Housing Stock by Year Constructed, 2017

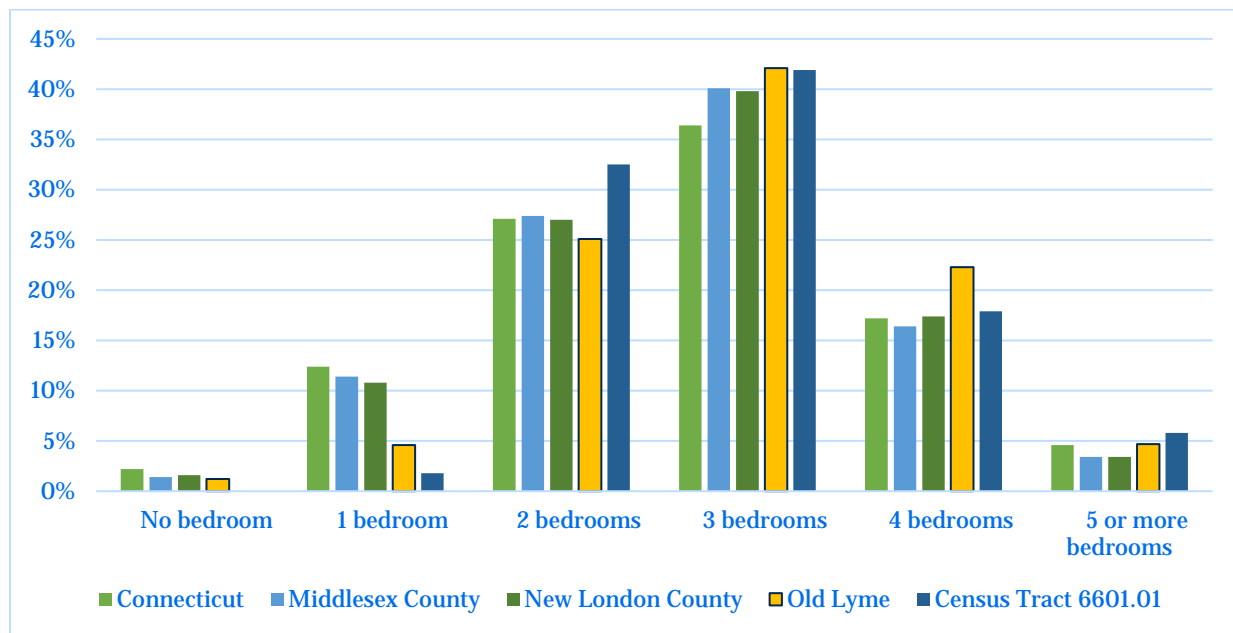
Source: US Census, American Community Survey Five-Year Estimates, 2013-2017



Housing units in Old Lyme are larger than the other geographies. Old Lyme has fewer one and two bedroom housing units, and more units with three or four bedrooms, than the surrounding counties or the state. While all of the areas considered have 1% to 2% of their housing stock as units with no bedroom, only 5% of the units in Old Lyme have one bedroom, compared to 11% to 12% in the surrounding counties and the state. Similarly, Old Lyme has 25% of its units as two bedroom units, with the other geographies having a slightly higher portion, at 27%. Looking at larger units, however, Old Lyme has 42% of its housing stock in three bedroom and 22% in four bedroom units, while those ranges are 36% to 40% and 16% to 17% for the other geographies.

Figure 17: Housing Stock by Number of Bedrooms, 2017

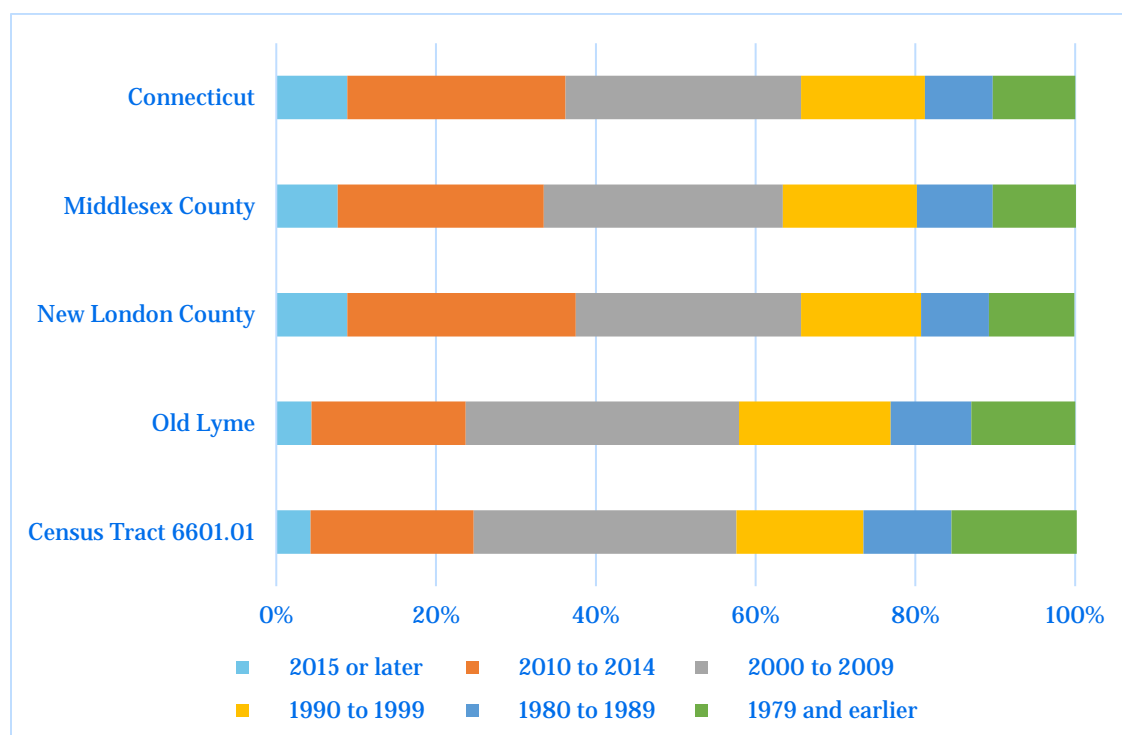
Source: US Census, American Community Survey Five-Year Estimates, 2013-2017



Old Lyme's higher portion of homeownership is also reflected in the length of time residents have lived in their current home. On average, Old Lyme residents have lived in their current housing longer than other geographies, consistent with the fact that renters tend to move more frequently than homeowners.⁶ Old Lyme has a larger portion of residents who moved to their current residence in all periods 2009 and earlier, as compared to the other geographies. Seventy six percent of Old Lyme residents moved into their current residence in 2009 or earlier, while that figure is 62% to 67% in the other geographies. Correspondingly, only 4% of Old Lyme residents moved into their current residence since 2015, and 19% moved in from 2010 to 2014. In the other geographies, 8% to 9% of residents moved into their current residence since 2015, and 26% to 29% moved in between 2010 and 2014.

Figure 18: Housing Stock by Year Householder Moved In, 2017

Source: US Census, American Community Survey Five-Year Estimates, 2013-2017



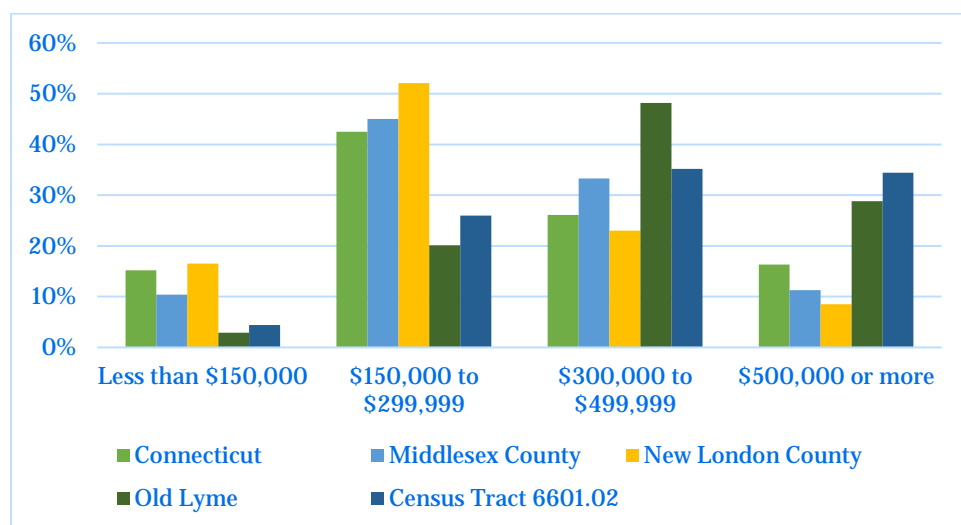
Along with larger housing sizes, the value of owner-occupied housing in Old Lyme is higher than the surrounding counties or the state. While the other geographies had 43% to 52% of their owner-occupied housing stock in the \$150,000 to \$299,999 range, only 20% of the housing units in Old Lyme fall into this range. In the under \$150,000 category, the other geographies had 10% to 17% of their housing

⁶ U.S. Census Bureau, "U.S. Mover Rate Remains Stable at About 12 Percent Since 2008, Census Bureau Reports," March 18, 2015. <https://www.census.gov/newsroom/press-releases/2015/cb15-47.html>.

stock in this range, while only 3% of housing units in Old Lyme were valued at less than \$150,000. **The largest portion of Old Lyme’s housing, 48%, fell in the \$300,000 to \$499,000 range, while other geographies had 23% to 33% of their housing stock in that range.** Old Lyme also has 29% of its housing stock valued at \$500,000 or more, while other geographies had 9% to 16% of their housing stock valued in that range.

Figure 19: Value of Owner-Occupied Units, 2017

Source: US Census, American Community Survey Five-Year Estimates, 2013-2017



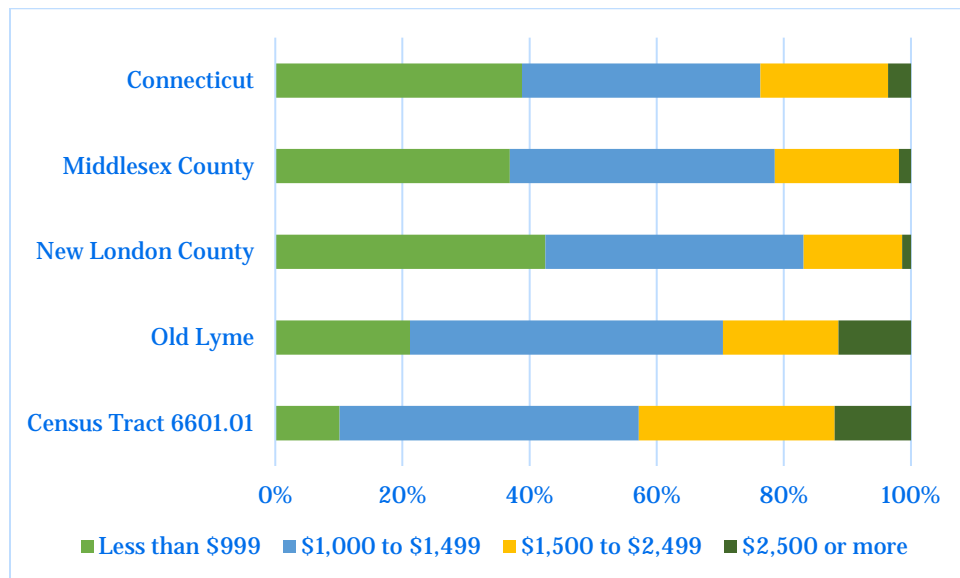
Similarly, rents are higher in Old Lyme than in the surrounding geographies. Examining gross rents⁷ paid for housing units in Old Lyme, only 21% of the rental units have gross rents below \$1,000 per month, while the surrounding counties and state have 37% to 43% of rents in that range. Old Lyme has a larger portion, 49%, in the \$1,000-\$1,499 range, while the two counties and state have 38% to 42% of their rental units in that range. In the higher price ranges, Old Lyme has a similar portion of units in the \$1,500 to \$2,500 range, at 18%. Compared to 16% to 20% in the other geographies. Old Lyme has a higher portion, 11%, in the \$2,500 and over range, while the other geographies have 1% to 2% of rental units with gross rents in that range.⁸

⁷ Gross rent refers to the contract rent plus the estimated average monthly cost of utilities (electricity, gas, and water and sewer) and fuels (oil, coal, kerosene, wood, etc.) if these are paid by the renter. This approach is used to account for the difference in monthly rental costs between units that include utilities and/or fuel and those that do not.

⁸ As referenced in the rental vacancy rates section, if a large number of vacation homes are offered for rent, this could also be driving up the rental rates, assuming that larger single-family homes in a prime vacation spot command rents much higher than a typical apartment or other rental unit in the region.

Figure 20: Gross Rents Paid for Renter-Occupied Units, 2017

Source: US Census, American Community Survey Five-Year Estimates, 2013-2017



Despite the higher housing costs, the portion of homeowners and renters that are cost-burdened is similar in Old Lyme and the other geographies. The US Department of Housing and Urban Development defines cost-burdened households as those who pay more than 30% of their income for housing. While 49% to 52% of renter households in Connecticut and the two counties are cost burdened, that figure is 51% in Old Lyme. Among homeowners with a mortgage, 31% in Old Lyme are cost burdened, while the other geographies range from 30% to 33%. The one exception is homeowners without a mortgage, for which a smaller portion, 14%, are cost burdened, compared to 19% to 22% in the other geographies.

Future Housing Demand

To estimate the future housing demand in Old Lyme, a multi-faceted approach was used. First, a methodology using headship rates to estimate household formation was used to estimate the future housing demand due to natural shifts in population. Headship rates refer to the portion of the population considered head of household divided by the population, usually segmented by certain demographic characteristics (such as age).⁹ The components that drive household formation include

⁹ Organizations that use a similar approach based on headship rates include the Joint Center for Housing Studies at Harvard University, the Federal Reserve Bank of Kansas City, and the Turner Center for Housing Innovation at University of California, Berkeley.

growth in the adult population, shifts in the age distribution, and changes in the headship rate. Second, data on the workforce housing needs was estimated based on projected job growth by industry; since this is a major driver of demand in communities.

Household Formation and Population Shifts

For this analysis, population projections from EMSI, a leading data source, were used to estimate the future population by age of Old Lyme. The projection anticipated very little change in the total population through 2028.

Besides the overall population level, demographic shifts can also impact the demand for housing, particularly by age. As seen in Figure 21, the overall change in the number of projected households for Old Lyme is a net increase of approximately 132 households through 2028. However, when examining this change by age cohort, we see more notable shifts. The number of households in which the householder is over age 65 is expected to increase by roughly 527, while the number of households in which the householder is aged 45-64 will decline by approximately 434. There were no householders aged 15-24; and the number of households with householders aged 25-34 is also projected to decline slightly. This demographic shift could have impacts beyond the number of housing units needed, as the size, type of home, and price point desired by these groups may differ. **Old Lyme is projected to see a decrease in the total number of working-age households, and an increase in the number of older residents and retirees.**

Figure 21: Headship Rate and Household Formation driven by Population Shifts through 2028

Source: US Census, American Community Survey Five-Year Estimates, 2014-2018; EMSI projections, 2019, Q4; calculations by CERC

| Age of Householder | Headship Rate ¹⁰ | Number of Households | | Change, 2018-2028 |
|-------------------------|-----------------------------|----------------------|--------------|-------------------|
| | | 2018 | 2028 | |
| 15-24 | 0.0% | 0 | 0 | 0 |
| 25-34 | 50.6% | 277 | 262 | -15 |
| 35-44 | 46.2% | 405 | 458 | 53 |
| 45-54 | 50.0% | 686 | 500 | -186 |
| 55-64 | 63.2% | 1185 | 937 | -248 |
| 65-74 | 56.5% | 996 | 1213 | 217 |
| 75-84 | 63.8% | 599 | 867 | 268 |
| 85 and over | 66.2% | 232 | 274 | 42 |
| Total Households | | 4,379 | 4,511 | 132 |

¹⁰ Headship rates refer to the portion of the population considered head of household divided by the population.

Looking in more detail at the portion of the population by age that is head of household, Old Lyme's rates tend to be higher for homeownership units and lower for rental units than the state or national level. While this may be due to socioeconomic levels and personal preferences, it may also be related to the relative lack of rental units in the town. In other words, if you wish to live in Old Lyme, purchasing a home may be the only option. If these rates were more similar to the state level, Old Lyme would be expected to have approximately 380 fewer homeowner households and 450 more renter households. Another consequence is that Old Lyme has, overall, slightly fewer households than would be expected if the rates were more similar to the state level. Interestingly, Old Lyme's rates exhibit some anomalies compared to state and national trends. While the portion of the population that is head of household in general tend to increase with age, **Old Lyme's headship rate for householders aged 25-34 is unusually high, resulting in a decrease at the next age bracket. Old Lyme's headship rate also has an unusual drop at the 65-74 age bracket, while the 85 and over bracket remains high (but decreases at the state and national level).**

Nationally, some interesting trends emerge as well among the portion of the population that is head of household. Across the U.S., these rates have declined in recent years, especially among younger population groups. This is attributed in part to the Great Recession and to financial factors such as high levels of student loan debt, increases in unemployment, and declines in income among the young adult population. Other cultural trends driving down household formation include increasing educational levels and delaying marriage, both of which decrease the likelihood that a young person lives independently in their own household. While there are increases in the portion of young people "doubled up," such as living with a roommate or relative, the majority of the decline in the portion of the population who are householders is due to young people living with their parents at a higher rate than in prior years.¹¹ Beyond headship rates, this trend of young residents living with their parents for a longer period of time may also reduce the number of older residents who are ready or able to downsize, impacting the turnover of single family homes.

What remains to be seen is whether this decrease in rate of young people forming their own household is a temporary decline which will bounce back as the economy recovers, or whether it represents a

¹¹ For further discussion, see McCue, Daniel, and Christopher Herbert, "Updated Household Projections, 2015-2035: Methodology and Result," Harvard Joint Center for Housing Studies, Working Paper December 2016, http://www.jchs.harvard.edu/sites/default/files/household_growth_projections2016_jchs.pdf; Rapaport, Jordan, "Millennials, Baby Boomers, and Rebounding Multifamily Home Construction," Federal Reserve Bank of Kansas City, Economic Review, Second Quarter 2015, <https://www.kansascityfed.org/~media/files/publicat/econrev/econrevarchive/2015/2q15rappaport.pdf>; Goodman, Laurie, Rolf Pendall and Jun Zhu, "Headship and Homeownership: What does the Future Hold?" Urban Institute, June 2015, <https://www.urban.org/sites/default/files/2000257-headship-and-homeownership-what-does-the-future-hold.pdf>; and Fry, Richard, "More Millennials Living with Family Despite Improved Job Market," Pew Research Center, July 29, 2015, <http://www.pewsocialtrends.org/2015/07/29/more-millennials-living-with-family-despite-improved-job-market/>.

cultural shift that will persist for a longer period of time. This report uses a conservative approach, assuming that headship rates for younger demographic groups remain low over the study period (through 2028). However, if this trend reverses and headship rates begin to increase, the number of new housing units needed for the younger age cohorts will be higher than projected.

One other item that should be noted is that often household formation is constrained by housing availability. The supply of housing is less flexible than other commodities, as housing takes a long time to construct, and once built, can last for generations. There is evidence that those looking for a home often go where housing is available, which is not necessarily where they would choose to live if housing were more flexible. Conversely, lack of housing options can constrain household formation. Since two of the primary sources of new household formation are young people moving out of the parental home and divorce or separation, factors such as high levels of homeownership (lack of rental options) and high housing prices can deter household formation among those groups.¹² There is some evidence to support that this may be occurring in Old Lyme. The town has higher levels of homeownership than the surrounding geographies, and higher home values as well. We also see the population of young adults (age 20-35) is lower than the surrounding geographies, and the town similarly has lower proportions of single-parent families and nonfamily households than other areas of the state. As seen in Figure 22, hypothetically, if headship rates in Old Lyme were similar to the rest of Connecticut, the town would have approximately 75 more households (net), including 377 fewer homeowner households and 453 more renter households.

¹² Mulder, Clara H. "Population and Housing: A two-sided relationship," Demographic Research, Vol 15, Article 13, p. 401-412, Nov 14, 2006; <https://www.demographic-research.org/volumes/vol15/13/15-13.pdf>.

Figure 22: Comparison of Old Lyme versus Connecticut Headship Rates and Impact on Household Formation

Source: US Census, American Community Survey Five-Year Estimates, 2014-2018; EMSI projections, 2019, Q4; calculations by CERC

| Age of Householder | Number of Households at Old Lyme Headship Rates | | Hypothetical Number of Households using Connecticut Headship Rates | | Difference | |
|-------------------------|---|------|--|-------|------------|------|
| | Own | Rent | Own | Rent | Own | Rent |
| 15-24 | 0 | 0 | 6 | 36 | 6 | 36 |
| 25-34 | 153 | 117 | 83 | 129 | -70 | 12 |
| 35-44 | 325 | 91 | 273 | 206 | -51 | 115 |
| 45-54 | 552 | 97 | 544 | 156 | -9 | 59 |
| 55-64 | 933 | 200 | 835 | 196 | -97 | -4 |
| 65-74 | 895 | 123 | 846 | 270 | -49 | 147 |
| 75-84 | 495 | 151 | 442 | 202 | -53 | 52 |
| 85 and over | 192 | 47 | 138 | 84 | -54 | 37 |
| Total Households | 3,544 | 826 | 3,167 | 1,280 | -377 | 453 |

Economic Drivers of Housing Demand

In addition to natural population shifts, the demand for housing can be impacted by external factors, such as economic conditions, natural disasters, changes related to major employers, and other drivers. While not all of these changes are predictable, supplementing basic housing data through discussions with large employers and key institutions regarding their growth plans and the housing needs of their constituents can help indicate where housing options may need to be expanded.

Estimates of housing demand due to employment growth can be formulated through examination of the industry mix, projected employment growth by industry, and distribution of workers among households of an area. For Old Lyme, most residents work in the surrounding area and not in Old Lyme itself; so projected employment growth in the Norwich-New London MSA was estimated, and a portion allocated to Old Lyme to estimate the 10-year housing growth for the municipality, shown in Figure 23.

Figure 23: Regional Household Formation driven by Employment Growth through 2028

Source: EMSI; US Census, American Community Survey Five-Year Estimates, 2014-2018; CERC calculations

| Industry | Norwich-New London MSA Employment 2018 | Norwich-New London MSA Employment 2028 projected | Change in Employment, 2018-2028 | Change in Number of Households, 2018-2028 ¹³ |
|--|--|--|---------------------------------|---|
| Agriculture, Forestry, Fishing and Hunting | 1,127 | 1,118 | (9) | (8) |
| Mining, Quarrying, and Oil and Gas Extraction | 71 | 65 | (6) | (5) |
| Utilities | 1,226 | 1,123 | (103) | (86) |
| Construction | 3,593 | 3,631 | 38 | 32 |
| Manufacturing | 16,904 | 17,424 | 520 | 433 |
| Wholesale Trade | 2,699 | 2,851 | 152 | 127 |
| Retail Trade | 14,277 | 14,090 | (187) | (156) |
| Transportation and Warehousing | 3,021 | 3,125 | 104 | 87 |
| Information | 1,313 | 1,333 | 20 | 17 |
| Finance and Insurance | 1,764 | 1,677 | (87) | (73) |
| Real Estate and Rental and Leasing | 929 | 974 | 45 | 38 |
| Professional, Scientific, and Technical Services | 4,864 | 4,653 | (211) | (176) |
| Management of Companies and Enterprises | 1,120 | 1,627 | 507 | 423 |
| Administrative and Support and Waste Management and Remediation Services | 2,821 | 3,280 | 459 | 383 |
| Educational Services | 2,400 | 2,528 | 128 | 107 |
| Health Care and Social Assistance | 17,010 | 18,488 | 1,478 | 1,232 |
| Arts, Entertainment, and Recreation | 2,100 | 2,223 | 123 | 103 |
| Accommodation and Food Services | 13,019 | 14,168 | 1,149 | 958 |
| Other Services (except Public Administration) | 3,653 | 4,082 | 429 | 358 |
| Government | 29,949 | 27,209 | (2,740) | (2,283) |
| Unclassified Industry | 20 | 30 | 10 | 8 |
| Total | 123,880 | 125,699 | 1,819 | 1,516 |

Old Lyme currently comprises approximately 2.8% of the population of the metro area; so if that portion remains the same, the town would gain approximately 42 households over the next 10 years as a result of projected employment growth.

¹³ The number of workers per household statewide was used to estimate household formation for Old Lyme. These figures do not account for employees who may commute in or out from other towns, and does not leave any additional allowance for households with no workers, nor for any additional vacancy to maintain equivalent occupancy rates as the housing stock increases. Estimates also assume that growth is distributed uniformly across the state.

Providing workforce housing may be particularly important since Old Lyme's natural demographic projections are trending toward more households in which the householder is over age 65, which are more likely to be retirees and those no longer in the workforce. While endogenous demographic and workforce growth indicate slow growth, opportunities based on changes at major employers or institutions in the area (which are exogenous impacts and not included in the standard forecast models) may also exist. For example, growth at General Dynamics Electric Boat in Groton due to the large Navy contract signed in December 2019 may present opportunities to increase the resident population. However, in order to capture such opportunities, the town may need to diversify its housing stock, as new workers moving to a region tend to rent during their first year.¹⁴

Housing Types

In addition to the number of housing units needed, it is important to understand the mix of housing likely to be demanded. Among the demographic groups that are projected to grow in Old Lyme (primarily age 65 and older), the majority (76%) own their home statewide, though the homeownership rate among that group is higher in Old Lyme (86%).¹⁵ However, as the age increases, the household size also tends to decrease, with 45% of this group statewide living alone, compared to only 22% of householders living alone in the 35-64 age range. While many in this group may have purchased a home earlier in life and continue to live there, there is a growing trend among seniors to downsize, as well as to prefer an apartment or condominium that will reduce the amount of work (such as home maintenance or yard work), as well as provide amenities and easier mobility (such as one-floor living, elevator access, etc.) than single-family homes may provide.

Since Old Lyme's current resident population is aging, and trending toward more residents of retirement age, growing the workforce to support local industries will require new residents to move to Old Lyme from elsewhere. Among new residents moving in for work, the majority tend to be renters for at least the first year. Among Connecticut residents who moved to a new home in the most recent year (either from another county, another state, or abroad), 61% resided in rental units, and 39% purchased a home within the first year. And generally, the farther the resident moved, the more likely they were to rent during the first year. Among those moving between counties within Connecticut, 56% were renters; among those moving from another state, 62% rented; and residents who moved to Connecticut from abroad, 71% rented during their first year. And working age residents are less likely to be living alone than seniors, with 24% of householders in the 15-34 age range and 22% in the 35-64 age range living alone statewide. Eighteen percent of those householders aged 15-34 and 4% of those aged 35-64 lived

¹⁴ This theme is discussed further in the next section on housing types.

¹⁵ Unless otherwise specified, all data in this section is from US Census, American Community Survey Five-Year Estimates, 2013-2017, with CERC calculations.

with roommates, while 58% of those aged 15-34 and 74% of those aged 35-64 lived with a spouse and/or children.

With regard to affordability, a diversity of housing is also needed.¹⁶ Among seniors, the median household income in Old Lyme is \$77,719, so the typical senior household can afford to spend \$1,943 per month on housing. The median gross rent in Old Lyme is \$1,222, which would be accessible to this group, while the median monthly housing costs for owner-occupied housing with a mortgage is \$2,267. While many seniors may have purchased homes during their working years and no longer have a mortgage, those who need new housing may find it more affordable to rent, or may need to seek lower-priced homes.¹⁷ Higher-income seniors who are looking to downsize or reduce their maintenance workload may prefer housing with more amenities.

Among the industries projected to see employment growth across the state, the top 6 account for 88% of the projected employment growth in the Norwich-New London MSA. These industries, the average annual wage statewide, and the monthly housing costs that would be affordable to a typical worker in that industry, are shown below in Figure 24. This chart also illustrates the need for housing at diverse price points. Among workers in lower-wage industries, such as accommodation and food services, other services excluding public administration, and administrative and support and waste management and remediation services, a household with a single worker could not afford the median rent in Old Lyme. In higher-wage industries, households with a single worker could afford the median rent, but only those in the manufacturing or management of companies and enterprises industries could afford the median monthly housing costs for owner-occupied homes. In three of the six top-growing industries, even a two-worker household could not afford the median homeownership costs without being cost-burdened.

¹⁶ In this context, “affordable” means the household does not spend more than 30% of its income on housing costs.

¹⁷ The median monthly housing costs for owner-occupied housing without a mortgage in Old Lyme is \$831.

Figure 24: Housing Affordability for Jobs in Top-Growing Industries

Source: EMSI, 2019; State of Connecticut Department of Labor, 2018; calculations by CERC

| Industry | Estimated Change in Employment in Norwich-New London MSA, 2018-2028 | Average Annual Wage (Norwich-New London MSA, 2018) | Monthly Housing Affordability, Household with 1 Worker ¹⁸ | Monthly Housing Affordability, Household with 2 Workers ¹⁹ |
|--|---|--|--|---|
| Health care and social assistance | 1,478 | \$50,387 | \$1,260 | \$2,519 |
| Accommodation and food services | 1,149 | \$22,388 | \$560 | \$1,119 |
| Manufacturing | 520 | \$99,678 | \$2,492 | \$4,984 |
| Management of companies and enterprises | 507 | \$95,410 | \$2,385 | \$4,771 |
| Administrative and support and waste management and remediation services | 459 | \$42,183 | \$1,055 | \$2,109 |
| Other services (except public administration) | 429 | \$28,079 | \$702 | \$1,404 |

Red: cannot afford the median rent

Blue: can afford the median rent, but cannot afford the median housing costs for a home with a mortgage

¹⁸ Among households where at least one person is in the workforce, approximately 49% have 1 worker and 51% have two or more workers.

¹⁹ While actual households will likely have greater diversity, for illustrative purposes it is assumed here that in households with more than one worker, both work in the same industry.

Regional Industry Analysis

An industry analysis can help a local government identify industries to target in economic development planning. Such an analysis uses a multi-stage data-driven process to identify industries (by three-digit NAICS code)²⁰ that have large concentrations, strong national growth, higher regional wages than average, and/or create more additional jobs or earnings for each new job or dollar earned in that industry. The purpose of an industry analysis is to identify industries that have the greatest growth potential and whose growth will have the greatest impact within the region and, thus, which industries town officials may consider targeting.

Methodology

The first step in this analysis was to define the Old Lyme “region,” since this is the level at which economic activity takes place. For this analysis, the region was defined, based on commuting data, as Middlesex and New London counties, since 70% of employed Old Lyme residents work in these two counties and 73% of workers in Old Lyme reside in one of these two counties.²¹

Once the region was identified, an industry analysis matrix was created to capture a comprehensive examination of the health of the economy from local and regional perspectives. Criteria were developed for each step in the analysis, and each industry received one point for a “yes” answer on each of the following eight criteria.

Regional Industry Segmentation

1. Was the industry a current or emerging strength or priority retention target according to the industry segmentation analysis described in the next section?

Regional Employment Profile and Trend

2. Did the industry have a high relative employment concentration (location quotient) in the region in 2018?

National Employment Trends

3. Did the ratio between the industry’s jobs as a portion of U.S total jobs increase since 2009?

²⁰ The North American Industry Classification System (NAICS) is the standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy.

²¹ Source: LEHD On the Map, U.S. Census Bureau. <https://onthemap.ces.census.gov/>

4. Has the industry experienced flat or positive job growth since 2009?

Regional Multipliers

5. Was the industry's employment multiplier²² greater than the average of all the employment multipliers in the region?
6. Was the industry's income multiplier²³ greater than the average of all the income multipliers in the region?

Connecticut Wages

7. Was the industry's average state wage greater than the average state wage in 2009?

Qualitative Trend

8. Does it make logical sense for the region to prioritize the industry?

Each step in developing the matrix is explained briefly below, along with the results of that step of the analysis.

Regional Industry Segmentation

Regional economic drivers were identified through an industry segmentation analysis. For this analysis, all industries (defined using 3-digit NAICS codes) in the region were compared to the nation's industries. The steps of the industry segmentation analysis included:

- Calculating relative employment concentration for each industry for 2018;
- Calculating the absolute change in employment for each industry from 2009 to 2018;
- Calculating the regional employment for each industry for 2018; and

²² An employment multiplier indicates how important an industry is in regional job creation. An employment multiplier of 3 means that for every new "direct" job in that industry, two more jobs are created in other industries (i.e., for a total of three jobs). Typically, these additional jobs include many "fractions" of jobs spread over many industries.

²³ An income multiplier indicates the total amount of employee compensation paid out by employers as a result of an economic activity. An income multiplier of 1.5 means that for every dollar of compensation entered as a "direct effect" in a new scenario, an additional \$1.50 is paid out in wages, salaries, and other compensation throughout the economy.

- Performing a shift-share analysis²⁴ to determine each industry's competitive share.²⁵ If the competitive share component is positive, then the region's performance is not merely caused by national trends and a local advantage is helping the industry succeed.

After the calculations, each industry was classified into one of the following categories:

1. Current Strengths have been able to develop a regional presence and thrive, as demonstrated by a relative employment concentration in the regional economy and recent growth.
2. Emerging Strengths have seen regional growth but there is not yet an employment concentration.
3. Priority Retention Targets have done well in the past in the region but a recent loss of competitive share suggests the need for attention to stave off further decline.

Through this process, four industries were identified as Current Strengths, six industries were identified as Emerging Strengths, and five industries were classified as Priority Retention Targets. Appendix B provides segmentation results for all industries.

²⁴ Shift share analysis is a standard regional analysis method that determines how much regional job growth can be attributed to national trends and how much is due to unique regional factors. Shift share analysis helps answer why employment is growing or declining in a regional industry, cluster, or occupation. (Emsi)

²⁵ Competitive share indicates how much of the change in a given industry is due to some unique competitive advantage that the region possesses, because the growth cannot be explained by national trends in that industry or the economy as whole.

Figure 25: Industry Segmentation Results

Current Strength

- 336 Transportation Equipment Manufacturing
- 444 Building Material and Garden Equipment and Supplies Dealers
- 448 Clothing and Clothing Accessories Stores
- 814 Private Households

Emerging Strength

- 236 Construction of Buildings
- 237 Heavy and Civil Engineering Construction
- 424 Merchant Wholesalers, Nondurable Goods
- 446 Health and Personal Care Stores
- 452 General Merchandise Stores
- 551 Management of Companies and Enterprises

Priority Retention Target

- 332 Fabricated Metal Product Manufacturing
- 333 Machinery Manufacturing
- 445 Food and Beverage Stores
- 454 Nonstore Retailers
- 624 Social Assistance

Limited Prospects

- See Appendix B

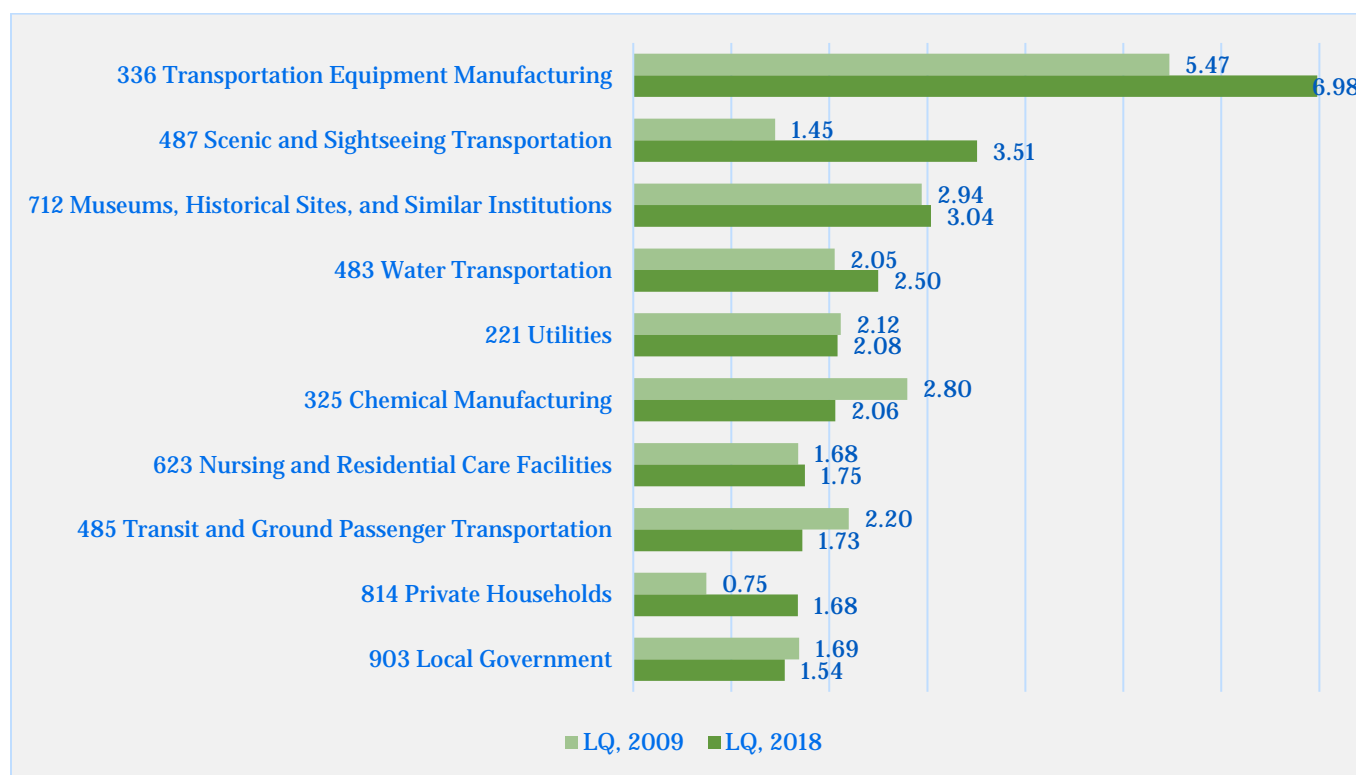
Regional Employment Profile and Trend

Looking at relative concentrations shows which industries have employment levels that are higher than the U.S. average and also provides a measure of the overall health of industries. Concentration is typically measured through the location quotient (LQ), which is calculated by dividing the regional employment in an industry as a proportion of national employment in that industry by total regional employment as a proportion of total national employment. Thus, an LQ of 1.0 indicates that the industry in a region represents the same share of total regional employment as the industry represents at the national level, while an LQ at or above 1.1 is typically considered evidence of a regional concentration (and, thus, specialization or advantage) in that industry.

Twenty-four industries had an LQ above 1.1 in 2018, indicated they were relatively concentrated in the region compared to employment at the national level. These twenty-four industries in 2018 were most commonly related to Manufacturing, Transportation, and Retail Trade. Eighteen had LQ increases from 2009-18 and the top six 2018 LQs were above 2.0 (Figure 26). Appendix C provides a list of location quotients for all industries in 2009 and 2018.

Figure 26: Top Ten Industries in Region by Location Quotient, 2009 and 2018

Source: EMSI



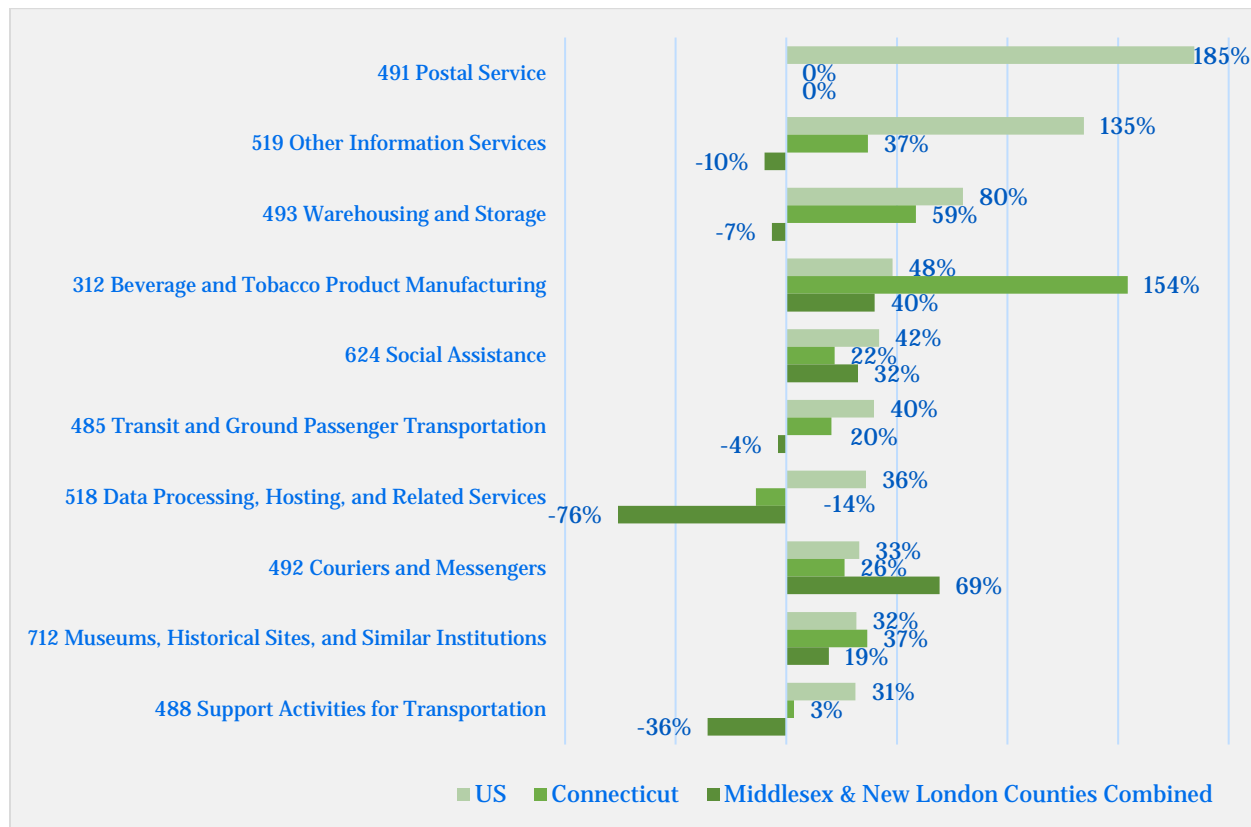
Note: Industries organized by highest LQs in 2018.

National Employment Trends

Incorporating national employment trends in the industry analysis provides information on larger economic changes that may affect the regional economy, and Old Lyme could grow its economy by capturing some of that national growth locally. In the United States as a whole, there was a 12% increase in the number of jobs between 2009 and 2018, and 40 industries also had job growth of at least 12%. As can be seen in Figure 27, however, many of these industries saw slower growth in Connecticut than nationally, just as the state saw slower employment growth overall.

Figure 27: Top Ten Industries in Region by Percentage Growth Nationally and at the State and County levels, 2009 and 2018

Source: EMSI



Notes: Industries organized by highest US Growth from 2009 to 2018. There was insufficient data to calculate the percentage change in Postal Service employment at state and county levels.

Regional Multipliers

Economic multipliers calculate the total effect of an economic change in a region. An employment multiplier, for example, estimates how the addition (or subtraction) of one job will affect employment in other industries in the region. For example, each new job in a general medical and surgical hospital in the state of Connecticut results in an additional 2.1 jobs being created because of the need for other positions, such as other hospital workers or local non-health service providers, such as restaurants or dry cleaners. Similarly, new industry sales or employee earnings also create additional sales or earnings, respectively, in the wider regional economy as the worker spends initial earnings on household goods or services.

Figure 28 shows the top ten industries by employment multiplier in Middlesex and New London counties, with Lessors of Nonfinancial Intangible Assets (except Copyrighted Works),²⁶ having the highest employment multiplier, at 8.36. This means that, for every job created in this industry in the three counties, an additional 7.36 jobs would be created in other industries.

Figure 28: Top Ten Industries in Region by Employment Multiplier, 2018

Source: EMSI

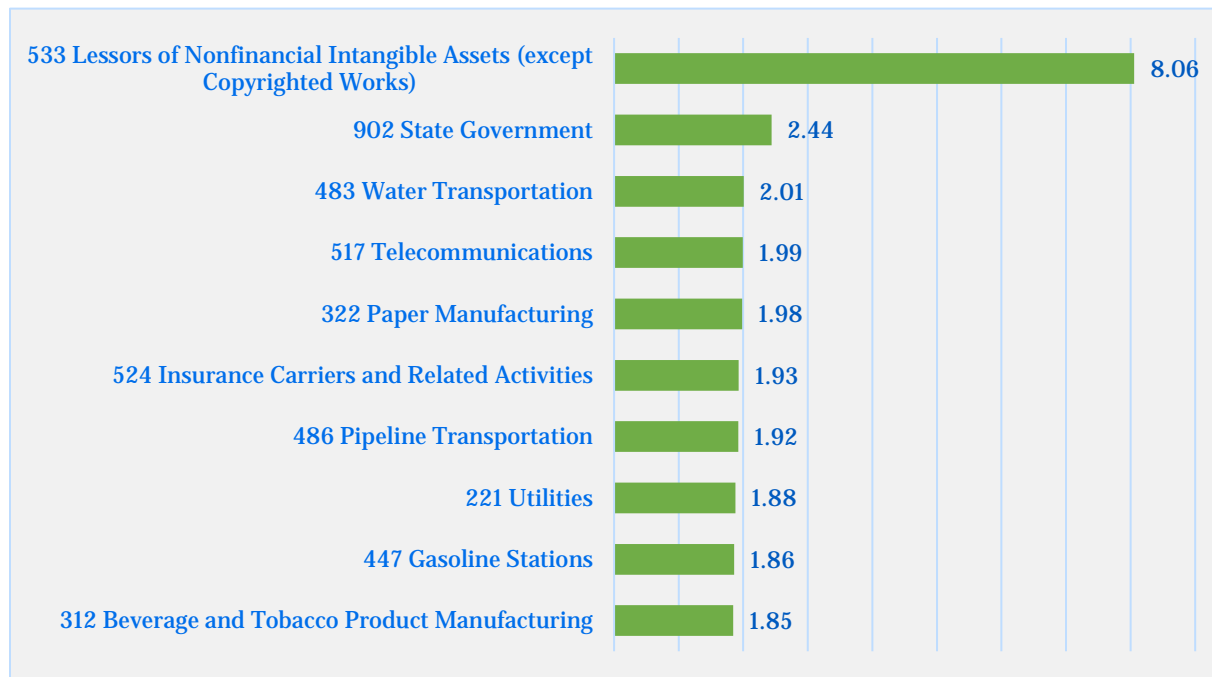


²⁶ Per the U.S. Census Bureau, “Industries in the Lessors of Nonfinancial Intangible Assets (except Copyrighted Works) subsector include establishments primarily engaged in assigning rights to assets, such as patents, trademarks, brand names, and/or franchise agreements, for which a royalty payment or licensing fee is paid to the asset holder. Establishments in this subsector own the patents, trademarks, and/or franchise agreements that they allow others to use or reproduce for a fee and may or may not have created those assets.” <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=533&search=2018%20NAICS%20Search>

Figure 29 displays the top ten industries by income multiplier in the region. Lessors of Nonfinancial Intangible Assets (except Copyrighted Works),²⁷ which had the highest employment multiplier, also has the highest income multiplier, at 8.06, which indicates that every new \$1 in earnings in this industry generates \$7.06 in wages or salaries in other industries.

Figure 29: Top Ten Industries in Region by Income Multiplier, 2018

Source: EMSI



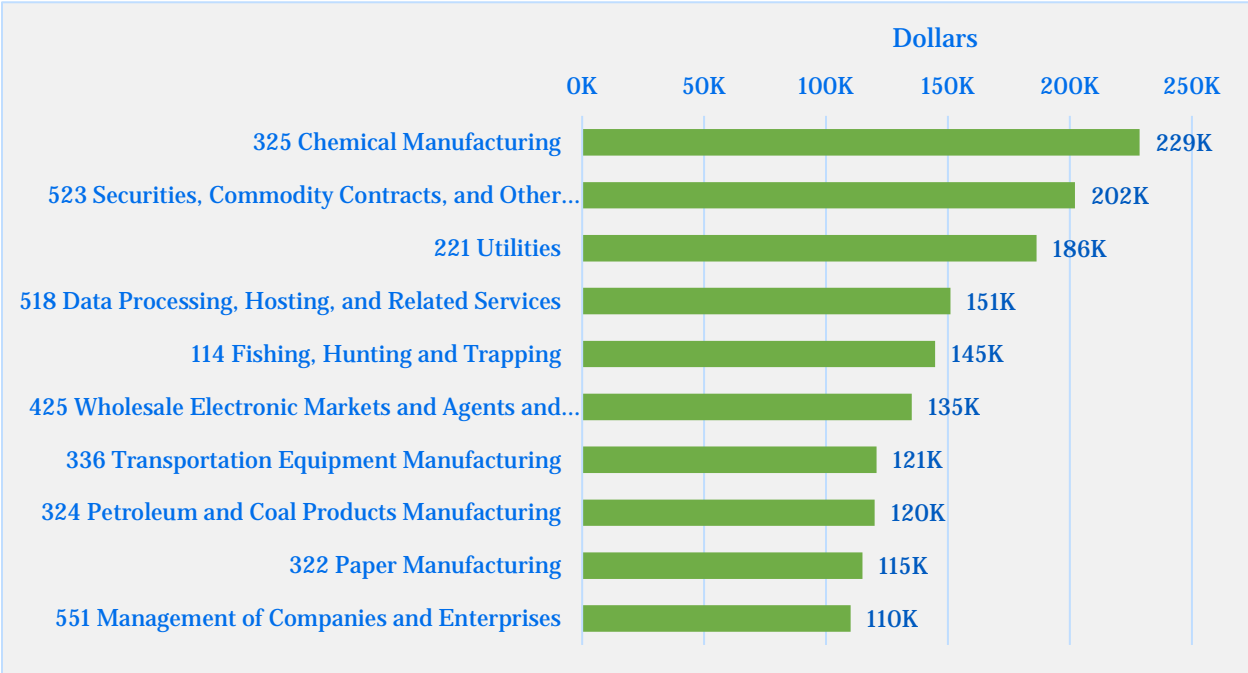
Connecticut Wages

In order to maintain and improve the economy in Old Lyme, it is desirable to have a wide range of well-paying jobs, especially in light of Connecticut's higher average wages and more highly skilled residents, compared to the nation overall. Therefore, it is useful to compare average earnings in each industry to the state's average wage to identify which regional industries are producing higher paying jobs, which would attract or retain residents and which would allow them to consume additional goods or services.

Figure 30 shows the top ten industries in Middlesex and New London counties in 2018 by annual average earnings. Workers in Chemical Manufacturing have the highest annual earnings, over \$228,000.

Figure 30: Top Ten Industries in Region by Average Annual Earnings, 2018

Source: EMSI



Qualitative Trend Analysis

To account for immeasurable qualities in an industry that impact the industry’s relevance to Old Lyme’s economy, a qualitative trend analysis was used. When evaluating an industry’s importance to the region it is important to apply logic. An industry’s significance to Old Lyme is affected by many aspects such as natural resources, human capital capacity, cost of living, etc.

For example, Old Lyme has relatively high housing costs. Therefore, the workers necessary for Food Services and Drinking Places would likely not be able to afford to live in town. Furthermore, food and entertainment are very seasonal, with most business conducted in the warmer months when there is an influx of tourists. In such a case we did not assign a 1 to the Food Services and Drinking Places industry for the Qualitative Trend Analysis measure. On the other hand, Ambulatory Health Care Services are a growing need for the aging population in the region and, such services are needed year-round. In this case we did assign a 1 to the Ambulatory Health Care Services industry for the Qualitative Trend Analysis indicator.

Results

The industry analysis matrix in Figure 31 provides an illustration of the highest scoring industries' performance,²⁸ broken into three groups based on how the industries scored on the measures described in the preceding sections. Utilizing these key groups allows town officials to better evaluate the potential for the various industries in Old Lyme and to customize development strategies for each group. The categorization and the results are explained in detail below.

Figure 31: Industry Analysis Matrix for Old Lyme

| Industry Group | NAICS | Description | At least 1,000 jobs (2018) | LQ > 1.1 (2018) | Segmentation | Recent U.S. Growth > U.S. Avg. | U.S. Share Increase (2009-2018) | Employ Mult. > State Avg. | Income Mult. > State Avg. | Industry Wage > State Avg. | Qualitative Trend Analysis | Sum |
|-------------------------------------|-------|--|-------------------------------|-----------------|--------------|-----------------------------------|------------------------------------|------------------------------|------------------------------|-------------------------------|-------------------------------|-----|
| Core Industries | 336 | Transportation Equipment Manufacturing | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | 8 |
| | 524 | Insurance Carriers and Related Activities | 1 | | | 1 | 1 | | 1 | 1 | 1 | 6 |
| Supply Chain and Support Industries | 332 | Fabricated Metal Product Manufacturing | 1 | 1 | 1 | 1 | | | | 1 | 1 | 6 |
| | 333 | Machinery Manufacturing | 1 | 1 | 1 | 1 | | | | 1 | 1 | 6 |
| | 541 | Professional, Scientific, and Technical Services | 1 | | | 1 | 1 | | | 1 | 1 | 5 |
| | 551 | Management of Companies and Enterprises | 1 | | 1 | 1 | 1 | | | 1 | 1 | 6 |
| Demographic Support Industries | 621 | Ambulatory Health Care Services | 1 | | | 1 | 1 | | | 1 | 1 | 5 |
| | 624 | Social Assistance | 1 | 1 | 1 | 1 | 1 | | | | 1 | 6 |

²⁸ The complete industry analysis matrix can be found in Appendix D.

Core Industries

Two industries in the Old Lyme region were identified as providing the region with a competitive edge over other regions. Furthermore, these are key industries statewide, comprising some of the largest contributors to the state's GDP. These industries are:

- NAICS 336 Transportation Equipment Manufacturing
- NAICS 524 Insurance Carriers and Related Activities

The defining features of these core industries are that they met at least six of the eight criteria in the industry analysis. Transportation Equipment Manufacturing is a Current Strength industry. Though Insurance Carriers and Related Activities did not chart in our segmentation analysis, the industry employs over a thousand workers and the average earnings per job is high—\$106,513 annually.

Supply Chain and Support Industries

Other industries that rose to the top of the industry analysis for Old Lyme were those that are important drivers of the regional economy as inputs or supports for the core industries. Town officials should also consider structuring their economic development planning to make their local economy more attractive and amenable to growing or recruiting these types of businesses. These industries are:

- NAICS 332 Fabricated Metal Product Manufacturing
- NAICS 333 Machinery Manufacturing
- NAICS 541 Professional, Scientific, and Technical Services
- NAICS 551 Management of Companies and Enterprises

Priority Retention Targets include Fabricated Metal Product Manufacturing and Machinery Manufacturing. The segmentation analysis also indicated that Management of Companies and Enterprises is an Emerging Strength in the area. These industries all scored relatively high on the measures used in the industry analysis; all four Supply Chain and Support Industries employ at least a thousand workers in the region and are industries that have experienced above average growth nationally. All of these industries also have regional average wages above state levels.

Demographic Support Industries

Two standouts in the analysis are public services for which Old Lyme's population is in growing need. These two industries are:

- NAICS 621 Ambulatory Health Care Services
- NAICS 624 Social Assistance

Social Assistance is currently a priority retention target, while Ambulatory Health Care Services is the fourth largest industry (defined using 3-digit NAICS codes) for employment in the region. As the Old Lyme population trends higher in the age demographic, the demand for Ambulatory Health Care Services increases. Similarly, \$91.5 million of the Social Assistance industry's receipts were billed to Services for the Elderly and Persons with Disabilities—a higher amount than any other industry purchasing Social Assistance output.

Supply Chain Analysis

A supply chain analysis evaluates industry activity within a region related to the key industries (identified in the regional industry analysis section), evaluating the relative strength, weakness, and presence of specific industries, and opportunities to attract additional economic activity through industries and businesses that already have strong ties to the region. This analysis is a guide to help identify industries with this type of potential growth in the region.

With the results of the industry analysis we have identified Old Lyme's economic base industries and grouped them into three categories- core industries, supply chain and support industries, and demographic support industries. Given these industries' high score on our analysis matrix (see Figure 31), we recognize them as competitive advantages and strong drivers for Old Lyme's economy. From there we can explore in-region demand for these industries and whether input sources within the region are satisfying the current need.

Demand for Economic Base Industry Production

When considering opportunities for growth, it is key to understand how much a region spends on each industry and how much of that demand is currently met in-region. If Old Lyme's businesses and consumers are spending a significant amount outside of the region on its economic base industries, that is an indicator that there may be opportunities for new businesses in those key industries.

Old Lyme industries and consumers spent \$5.4 billion (of \$10.5 billion in total spending) outside of the region on the core, supply chain and support, and demographic support industry groups' goods and services (Figure 32).²⁹ That means that over half of the region's total demand for its economic base industries' products are supplied from out-of-region sources. While these industries are competitive or strong drivers for the region, there is potential to realize more purchases within-region. A summary will show which industry groups are more likely to have demand for new in-region production.

²⁹ EMSI Regional Requirements report.

Figure 32: Demand for Old Lyme Key Industries met by Imports, 2018

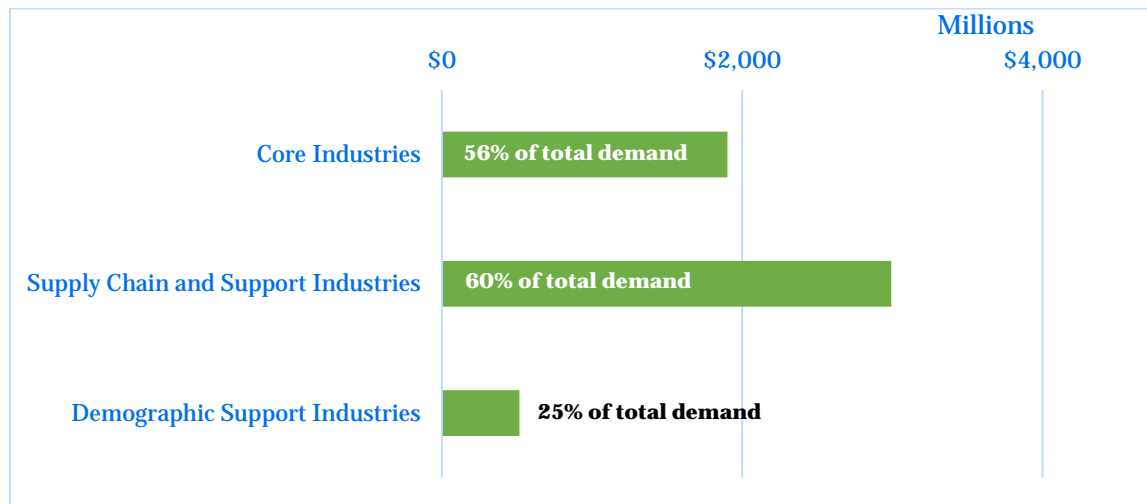
Source: EMSI

| Industry Group | Demand for | Demand met by Imports ³⁰ | % Demand met by Imports | Total Demand ³¹ |
|-------------------------------------|--|-------------------------------------|-------------------------|----------------------------|
| Core Industries | 336 Transportation Equipment Manufacturing | \$1,141,999,619 | 62.1% | \$1,838,584,162 |
| | 524 Insurance Carriers and Related Activities | \$759,499,800 | 49.3% | \$1,540,393,474 |
| Supply Chain and Support Industries | 332 Fabricated Metal Product Manufacturing | \$469,236,542 | 81.8% | \$573,524,047 |
| | 333 Machinery Manufacturing | \$486,763,819 | 94.2% | \$516,855,196 |
| | 541 Professional, Scientific, and Technical Services | \$1,270,831,895 | 41.3% | \$3,079,926,863 |
| | 551 Management of Companies and Enterprises | \$765,351,548 | 93.2% | \$821,590,359 |
| Demographic Support Industries | 621 Ambulatory Health Care Services | \$436,848,074 | 25.2% | \$1,734,113,024 |
| | 624 Social Assistance | \$80,728,532 | 22.3% | \$362,704,104 |

Figure 33 shows that Old Lyme's Core Industry group and Supply Chain and Support industry group have relatively high magnitudes of in-region demand for out-of-region product. To explore the viability of growth in each industry group, it is important to understand the dynamics of the major inputs for each group.

Figure 33: In-region Demand met by Out-of-region Suppliers, 2018

Source: EMSI



³⁰ Demand met by Imports is the amount spent by industries and consumers on essential goods outside of the defined region for the given industry.

³¹ Total Demand is the total amount spent by industries and consumers on the given industry.

Input Dynamics

Now that we examined demand data for potential growth opportunities in Old Lyme's economic base industries, we will investigate the dynamics of these industry groups' supply. To capitalize on industries with a competitive edge and industries that are strong drivers, it is important to understand from where their inputs are sourced. Not only will this information tell potential companies looking to locate in the area whether there are enough suppliers for their major inputs in the region, but this also serves to identify leakages, represented by purchasing outside the region. Identifying leakages can guide businesses to potential growth opportunities locally within supplying industries. If current inputs are frequently purchased from non-local entities, new establishments in the supplying industry may consider locating inside the region and current suppliers may consider expansion.

Core Industries

Old Lyme industries and consumers currently import 56% of all Core Industry group products they demand. That is \$1.9 billion, a significant amount of Old Lyme core industry activity currently happening outside the region. Furthermore, the Core Industry group imported 60% of its inputs from outside the Old Lyme region in 2018. **That represents a \$2.0 billion leakage available to potentially capture.**

We can see from Figure 34 that many of the major input suppliers for the Core Industry group are related to building, forging, or manufacturing. Many of these suppliers are within the economic base industry group, meaning they currently have a strong presence in the region. Leakages in these industries represent viable growth opportunities in the region because an infrastructure on which to build already exists- i.e., talent, logistics, etc.

Figure 34: Top Inputs for Old Lyme Core Industry Group

Source: EMSI

| Core Industry Group (NAICS 336 and 524) Purchases from | Imported Purchases | % Imported Purchases | Total Purchases |
|--|-------------------------------|-------------------------------------|------------------------|
| 336412 Aircraft Engine and Engine Parts Manufacturing | \$3,209,771 | 0.6% | \$509,847,138 |
| 524210 Insurance Agencies and Brokerages | \$40,008,180 | 16.8% | \$237,530,804 |
| 334511 Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing | \$152,601,575 | 94.2% | \$162,002,581 |
| 333618 Other Engine Equipment Manufacturing | \$102,900,852 | 100.0% | \$102,900,852 |
| 551114 Corporate, Subsidiary, and Regional Managing Offices | \$68,830,555 | 93.2% | \$73,882,018 |
| 336413 Other Aircraft Parts and Auxiliary Equipment Manufacturing | \$39,130,077 | 57.5% | \$68,061,869 |
| 331110 Iron and Steel Mills and Ferroalloy Manufacturing | \$62,171,622 | 99.9% | \$62,254,968 |
| 423830 Industrial Machinery and Equipment Merchant Wholesalers | \$31,277,563 | 60.0% | \$52,132,453 |
| 561320 Temporary Help Services | \$31,713,786 | 66.4% | \$47,739,758 |
| 533110 Lessors of Nonfinancial Intangible Assets (except Copyrighted Works) | \$35,159,593 | 75.5% | \$46,570,732 |
| 524292 Third Party Administration of Insurance and Pension Funds | \$23,506,803 | 55.7% | \$42,194,055 |
| 332111 Iron and Steel Forging | \$34,261,749 | 88.9% | \$38,520,219 |
| 518210 Data Processing, Hosting, and Related Services | \$35,835,823 | 93.8% | \$38,216,379 |
| 336611 Ship Building and Repairing | \$1,179 | 0.0% | \$37,823,850 |
| 336612 Boat Building | \$31,951,914 | 89.3% | \$35,768,043 |
| 522110 Commercial Banking | \$29,459,016 | 92.0% | \$32,011,276 |
| 333613 Mechanical Power Transmission Equipment Manufacturing | \$31,935,614 | 99.8% | \$32,002,921 |
| 334413 Semiconductor and Related Device Manufacturing | \$30,399,928 | 99.8% | \$30,459,637 |
| 541110 Offices of Lawyers | \$13,969,273 | 49.6% | \$28,165,149 |
| 423690 Other Electronic Parts and Equipment Merchant Wholesalers | \$22,961,931 | 87.5% | \$26,244,676 |

Supply Chain and Support Industries

Old Lyme businesses and consumers spent nearly \$3.0 billion on out-of-region Supply Chain and Support industries in 2018, which translates to 60% of all local spending on that industry group. Also, \$1.1 billion of the group's \$1.6 billion spending on inputs (68%) goes to suppliers outside the region.

Figure 35 shows that much of the Supply Chain and Support industry spending on out-of-region supply is for administrative or management services. Most of these suppliers are defined as Professional, Scientific, and Technical Services or Management of Companies and Enterprises (NAICS 541 or 551 industry) which are part of Old Lyme's economic base industries. **Again, this could mean that the infrastructure is already there ready for expansion.**

Figure 35: Top Inputs for Old Lyme Supply Chain and Support Industry Group

Source: EMSI

| Supply Chain and Support Industry Group (NAICS 332, 333, 541, and 551) Purchases from | Imported Purchases | % Imported Purchases | Total Purchases |
|---|--------------------|----------------------|-----------------|
| 551114 Corporate, Subsidiary, and Regional Managing Offices | \$90,528,905 | 93.5% | \$96,873,207 |
| 331110 Iron and Steel Mills and Ferroalloy Manufacturing | \$63,974,954 | 99.4% | \$64,362,043 |
| 561320 Temporary Help Services | \$31,622,512 | 66.1% | \$47,876,465 |
| 541110 Offices of Lawyers | \$18,494,398 | 48.6% | \$38,021,274 |
| 541611 Administrative Management and General Management Consulting Services | \$20,242,664 | 57.2% | \$35,384,437 |
| 519130 Internet Publishing and Broadcasting and Web Search Portals | \$33,606,881 | 96.4% | \$34,849,249 |
| 522110 Commercial Banking | \$26,698,862 | 91.3% | \$29,254,781 |
| 531110 Lessors of Residential Buildings and Dwellings | \$8,979,137 | 32.9% | \$27,305,402 |
| 541990 All Other Professional, Scientific, and Technical Services | \$5,562,534 | 23.2% | \$23,947,771 |
| 541512 Computer Systems Design Services | \$13,416,810 | 57.8% | \$23,220,921 |
| 533110 Lessors of Nonfinancial Intangible Assets (except Copyrighted Works) | \$10,725,089 | 46.8% | \$22,917,168 |
| 531210 Offices of Real Estate Agents and Brokers | \$12,496,270 | 57.3% | \$21,822,576 |
| 531120 Lessors of Nonresidential Buildings (except Miniwarehouses) | \$6,159,330 | 28.4% | \$21,708,591 |
| 561110 Office Administrative Services | \$17,151,574 | 81.9% | \$20,937,315 |
| 518210 Data Processing, Hosting, and Related Services | \$18,565,625 | 92.7% | \$20,026,661 |
| 541330 Engineering Services | \$2,582,258 | 13.3% | \$19,384,266 |
| 332710 Machine Shops | \$16,785,051 | 89.1% | \$18,837,764 |
| 331420 Copper Rolling, Drawing, Extruding, and Alloying | \$16,030,528 | 89.9% | \$17,831,691 |
| 517312 Wireless Telecommunications Carriers (except Satellite) | \$13,853,358 | 93.2% | \$14,871,736 |
| 331318 Other Aluminum Rolling, Drawing, and Extruding | \$10,539,608 | 74.2% | \$14,213,078 |

Demographic Support Industries

Though there is a relatively low amount of import demand for Old Lyme's Demographic Support industry production, the industry purchases most of their inputs from outside of the region. These industries spend \$340.9 million of a total \$536.7 million on inputs imported from outside of Old Lyme (64%).

Like the Supply Chain and Support industry group, Old Lyme's Demographic Support industries import a significant amount of their administrative and management service inputs (Figure 36). This gives further credence to the suggestion that expansion within Professional, Scientific, and Technical Services and Management of Companies and Enterprises would be a viable tactic for Old Lyme.

Figure 36: Top Inputs for Old Lyme Demographic Support Industry Group

Source: EMSI

| Demographic Support Industry Group (NAICS 621 and 624) Purchases from | Imported Purchases | % Imported Purchases | Total Purchases |
|--|---------------------------|-----------------------------|------------------------|
| 551114 Corporate, Subsidiary, and Regional Managing Offices | \$35,478,223 | 93.0% | \$38,144,713 |
| 531110 Lessors of Residential Buildings and Dwellings | \$7,071,393 | 33.2% | \$21,277,599 |
| 531210 Offices of Real Estate Agents and Brokers | \$9,833,106 | 57.8% | \$17,004,998 |
| 531120 Lessors of Nonresidential Buildings (except Miniwarehouses) | \$4,332,640 | 25.6% | \$16,916,350 |
| 561320 Temporary Help Services | \$10,286,444 | 65.9% | \$15,614,470 |
| 621511 Medical Laboratories | \$6,316,040 | 46.0% | \$13,743,718 |
| 522110 Commercial Banking | \$11,842,918 | 91.3% | \$12,973,211 |
| 325414 Biological Product (except Diagnostic) Manufacturing | \$11,982,956 | 100.0% | \$11,982,956 |
| 424210 Drugs and Druggists' Sundries Merchant Wholesalers | \$9,459,066 | 80.5% | \$11,753,137 |
| 531390 Other Activities Related to Real Estate | \$6,487,250 | 58.6% | \$11,062,674 |
| 722511 Full-Service Restaurants | \$625,199 | 5.8% | \$10,764,267 |
| 541611 Administrative Management and General Management Consulting Services | \$4,817,230 | 51.2% | \$9,407,350 |
| 531311 Residential Property Managers | \$2,693,774 | 31.1% | \$8,654,774 |
| 541110 Offices of Lawyers | \$4,176,755 | 48.3% | \$8,652,003 |
| 339116 Dental Laboratories | \$7,463,319 | 91.9% | \$8,119,536 |
| 561110 Office Administrative Services | \$6,056,749 | 82.8% | \$7,318,256 |
| 519130 Internet Publishing and Broadcasting and Web Search Portals | \$6,727,494 | 96.5% | \$6,974,856 |
| 517312 Wireless Telecommunications Carriers (except Satellite) | \$5,194,698 | 93.2% | \$5,575,562 |
| 621512 Diagnostic Imaging Centers | \$4,053,843 | 73.7% | \$5,500,969 |
| 531130 Lessors of Miniwarehouses and Self-Storage Units | \$428,120 | 8.0% | \$5,360,589 |

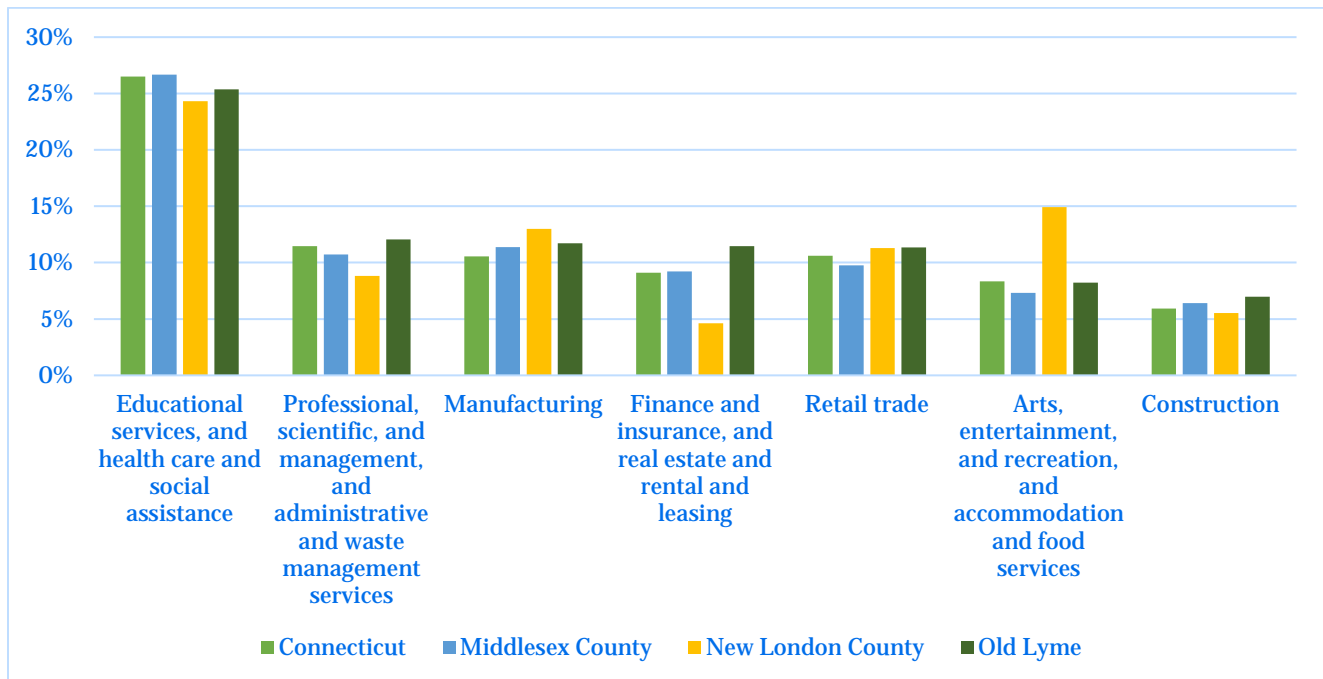
One supplying industry that charted on each economic base industry group's major inputs list is Commercial Banking (NAICS 522110). Over 91% of each group's purchases on this input came from outside the region. However, this is an industry in which the Old Lyme region neither has a competitive advantage, nor an apparent infrastructure in place.

Economic Trends

To understand what development might suit an area, it is helpful to understand the existing industry and employment trends. In Old Lyme the largest portion of employment is in Educational Services, Healthcare, and Social Assistance followed by Professional, Scientific, and Management, and Administrative and Waste Management Services, 25% and 12%, respectively. Employment for the largest group is on par with its surrounding counties and the state, but Old Lyme's employment in Professional, Scientific, and Management, and Administrative and Waste Management Services is significantly higher than both Middlesex and New London counties. Similarly, Old Lyme has a notably higher portion of employment in the Finance and Insurance, and Real Estate and Rental and Leasing sector at 11% compared to 9% in Middlesex County, 5% in New London County, and 9% statewide. While the portion of employment in retail is similar in Old Lyme as compared to New London county, it is significantly higher than in Middlesex county and Connecticut. The remainder of the sectors have similar or lower employment in Old Lyme as compared to the surrounding counties or state. Thus, Old Lyme has a higher relative concentration of employment in the Professional, Scientific, and Management, and Administrative and Waste Management Services sector and the Finance and Insurance, and Real Estate and Rental and Leasing sector.

Figure 37: Employment by Industry

Source: US Census, American Community Survey Five-Year Estimates, 2014-2018



Annual wages for different sectors vary widely in Old Lyme. The highest-paid employees include those in Professional, Scientific, and Technical Services, Real Estate and Rental and Leasing, and Wholesale Trade, with average salaries over \$60,000 per year. The lowest-paid industries include Accommodation and Food Services, Retail Trade, and Information, all with average salaries below \$30,000 per year.

Figure 38: Average Annual Wage by industry, Old Lyme (town)

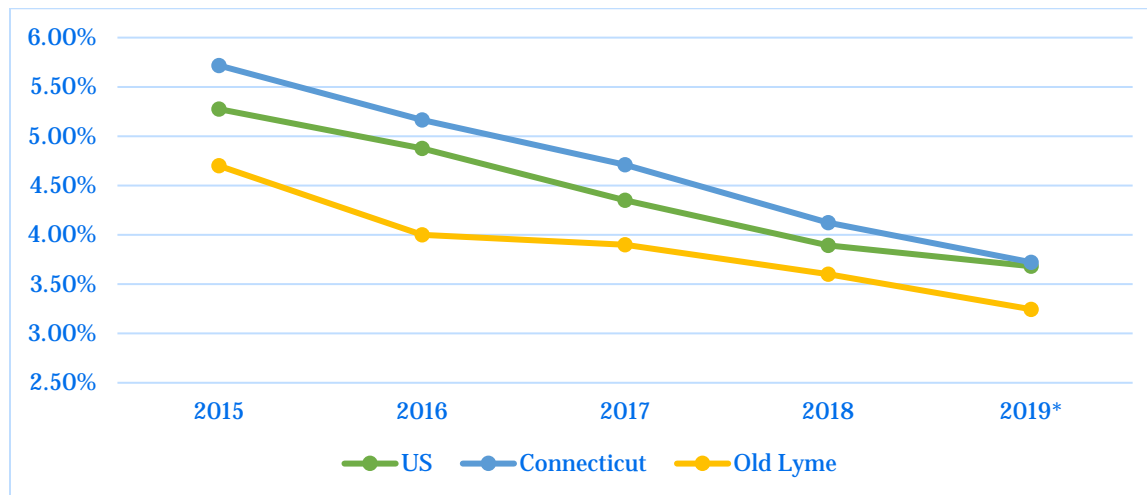
Source: U.S. Bureau of Labor Statistics: Quarterly Census of Employment and Wages (QCEW), 2018



Over the last 5 years, Old Lyme's unemployment rate has been consistently lower than the state of Connecticut and the United States. Unemployment in all three geographies has trended downward over the same time frame. Old Lyme's 2019 average annual unemployment rate was 3.25%, lower than both Connecticut (3.72%) and the US (3.68%).

Figure 39: Average Annual Unemployment Rate, Old Lyme (town)

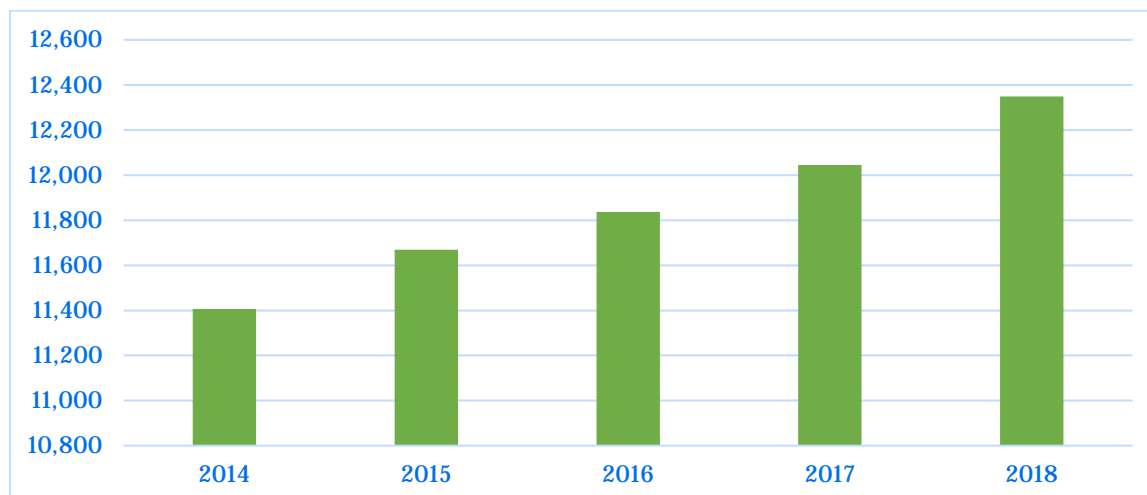
Source: Local Area Unemployment Statistics (LAUS), 2015-2019



Consistent with the decreasing unemployment, the number of business establishments in the region has increased over the last 5 years, from 11,503 in 2014 to 12,534 in 2018.

Figure 40: Number of Business Establishments in Middlesex and New London Counties

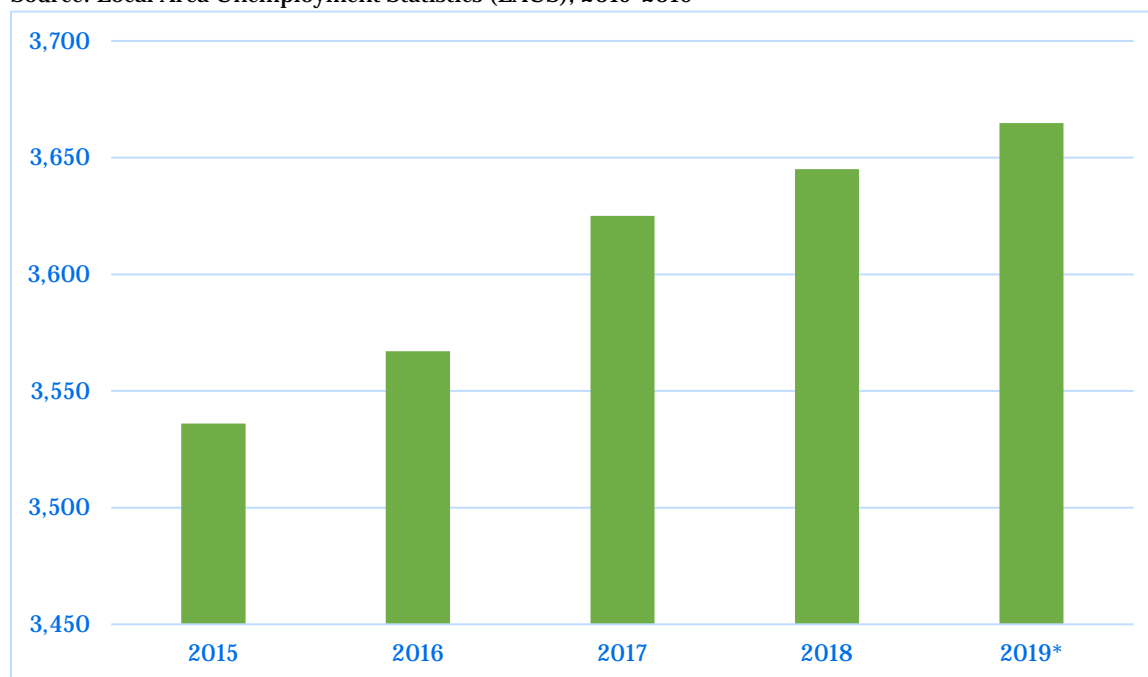
Source: U.S. Bureau of Labor Statistics: Quarterly Census of Employment and Wages (QCEW), 2014-2018



Although the number of businesses has steadily increased, the average annual employment in Old Lyme has grown at a slower pace. Business establishment growth remained strong throughout the five years ending 2018, reaching its peak of 2.5% in that final year. However, annual employment growth reached its 5-year peak in 2017 at 1.6% and then went down about half a percent in both 2018 and 2019.

Figure 41: Average Annual Employment, Old Lyme (town)

Source: Local Area Unemployment Statistics (LAUS), 2015-2019



Opportunities

These data, as well as the focus group/SWOT analysis and resident and business survey (presented in separate reports), point to a number of trends and opportunities which Old Lyme should consider as part of their economic development strategy. Overall, without any further efforts, little development should be expected. Very little population growth is anticipated from the existing residents, as the population is aging and there are currently limited opportunities for young people or new workers moving to the area to establish themselves in Old Lyme. Similarly, most businesses did not anticipate significant expansion or hiring over the next several years, but expected their level of activity to remain about the same. Retail, similarly, is roughly at an equilibrium, and there is little need for additional shopping or dining without attracting additional patrons to support these businesses.

However, there are a number of opportunities for Old Lyme to change this course. The number of business establishments has been growing regionally over the past 5 years, as has the total employment in Old Lyme, with certain industry sectors anticipated to experience significant growth. Old Lyme is already a commuter town, with significant connections to other towns in the region, and is well-positioned to capitalize on growth that happens regionally if the town is able to create opportunities for businesses. Furthermore, growth and development in nearby towns presents not only a potential source of competition, but also an opportunity to attract visitors or future residents, if the town can position itself as an attractive destination and create opportunities to engage visitors. Furthermore, the majority of survey respondents supported particular types of development that increased opportunities for recreation and entertainment, supported pedestrian and bike infrastructure, encouraged local businesses, highlighted the town's natural and cultural assets, and improved the visual appeal of a number of areas. Any such development, of course, should be of a type and scale in keeping with the unique character and cultural heritage of Old Lyme. The following represent opportunities for the town to leverage its existing assets to encourage these types of development.

1. **Highlight Old Lyme's natural amenities.** The town's natural beauty, location, and beaches are cited frequently as some of the town's most important attributes. Making these amenities accessible through bike and pedestrian infrastructure, wayfinding, and support services can provide residents and visitors with attractive amenities that create an appealing destination. The town's accessibility via I-95 should increase its draw for visitors, shoppers, and potential residents alike.
2. **Support outdoor recreation.** Residents consistently cite outdoor recreation as important, and young people in particular, as well as seasonal residents, indicate interest in additional activity and entertainment options in Old Lyme. Walking, biking, and additional town-supported recreation and activities, can increase foot traffic and attract residents and visitors to the area. Festivals or special events can also provide an occasion to enjoy these amenities.
3. **Build on the arts and culture traditions and local attractions in Old Lyme to create a unique destination.** The recent growth and development of nearby towns provides both potential competition as well as an opportunity to share in this growth, but in order to compete, people need to have a purpose for visiting Old Lyme. Generic dining and retail is

unlikely to locate in Old Lyme, nor be successful, without significant additional foot traffic. However, building a community gathering space with attractions, entertainment, dining and retail options can create a unique destination. The physical layout of the town and the visitor experience, combined with support for the types of enterprises the town would like to attract and a branding campaign promoting the arts and culture tradition of Old Lyme, and its New England charm and character, can help create such a locale.

4. ***Encourage support of local businesses.*** In the resident and business survey, business owners as a group were the least likely to say the town does a good job of communicating. While the survey provides some initial guidance, this represents an opportunity for the town to reach out for more detail on the needs of the existing local businesses. What is working well for them? What are their particular challenges? And what steps can the town take to support the existing businesses and encourage their growth? A significant number of business owners indicate they chose to locate in Old Lyme because of family or personal reasons, or because it was their home; furthermore, a number represented small or home-based businesses. Potential support might include: help with the particular needs of home-based businesses; providing opportunities for training and skills development; giving marketing support; organizing networking opportunities; assistance in navigating local government; and connecting businesses to related services, such as attorneys, accountants, marketing or IT professionals, etc. For larger companies, support could include understanding their anticipated space, infrastructure, workforce, and other needs and providing appropriate resources to address potential issues. A package or website with these support tools can help businesses feel welcome, as well as connect to resources quickly. “Buy local” campaigns, periodic “business spotlight” articles, and other engagement tools can help increase awareness of local businesses and highlight their successes. **Some survey respondents suggested that retail and commercial areas could benefit from beautification efforts and improved accessibility.** An active, engaged merchants’ association should be a key partner with the town in promoting cooperation and mutual support among businesses to improve the commercial corridors and attract patrons.
5. ***Create experience-centered dining, entertainment, and retail spaces, particularly in the Halls Road area.*** Over 80% of survey respondents supported additional development in the Halls Road area, including additional dining and entertainment options; more attractive signage and wayfinding; and pedestrian and bike accessibility. Younger and working-age respondents were more likely to favor these amenities, highlighting the importance of these to attracting a diverse population to Old Lyme. Focus on creating a unique, experiential destination (allowing for cultural exploration and activity-based entertainment) with increased foot traffic to support local businesses is key to the long-term success of Halls Road. A planning exercise to consider the physical and design elements that would promote a positive visitor experience and consider the appropriate layout and density of the area, perhaps incorporating some of the area’s natural amenities (such as the waterfront at both ends of Halls Road) and housing opportunities, may be appropriate.
6. ***Provide diverse housing options.*** While support for additional housing development was mixed, there was some acknowledgement of the need for more diverse housing options, including smaller homes which would provide opportunities for young people and seniors

looking to downsize. There is evidence that Old Lyme's lack of housing diversity is constraining its growth. Furthermore, additional housing options could help bring the density needed to support the additional dining, entertainment, and retail options desired by the residents. A variety of housing types, sizes, and price points should be considered.

7. ***Capitalize on growth in the region to attract new residents, visitors, and businesses.*** While indications are that endogenous growth in Old Lyme may be limited, there are certain areas and industries in the region that are prospering. Identifying these zones of growth and assessing how they might fit with Old Lyme's vision can provide opportunities for expansion and collaboration.
8. ***Clarify the regulatory process.*** Residents and businesses both indicated that regulations were an issue. To facilitate the growth of the type and character desired, town officials should investigate these issues and work to improve the process. This does not necessitate a reduction in regulation; the Town should provide clear direction regarding the nature of development its constituency supports. However, it may be necessary to communicate this guidance clearly, to make the process efficient, consistent, and easy to navigate, or to modify processes to facilitate the type of development that is desired, as well as to give a clear and timely response to uses that may not be a good fit.
9. ***Facilitate the growth of supply chain and demographic support businesses.*** In addition to consumer-facing retail, Old Lyme can promote growth by considering the appropriate location and scale of non-retail commercial businesses, such as supply chain (business to business) and demographic support businesses. Demographic support businesses, such as health care and social services, may provide needed support for the town's changing demographic and help fortify the commercial base. Additionally, Old Lyme should consider opportunities to attract companies that support key industries that are growing in the region, which might be a good fit for the town's commercial/industrial districts. The Town should consider the appropriate location and scale for these companies, the town's advantages, which companies or industries have existing connections to the town, and whether the town has the appropriate workforce and other resources. The town should also ensure that real estate and zoning regulations are appropriate for these businesses' growth.

Developing a strategic plan for addressing these topics can ensure the Town is well-positioned to capitalize on these opportunities, as well as that the nature of development in Old Lyme is befitting the town's unique placement and preserving its New England character.

Appendix A: Old Lyme Housing Occupancy

| | | |
|--|--------------|----------|
| Total housing units | 5,036 | a |
| Occupied | 3,215 | b |
| Owner-occupied | 2,656 | c |
| Renter-occupied | 559 | d |
| Vacant | 1,821 | e |
| For rent or for sale | 127 | f |
| Rented, not yet occupied | - | g |
| For sale only | 51 | h |
| Sold, not yet occupied | - | i |
| Seasonal, recreational, or occasional use | 1,446 | j |
| Other vacant | 197 | k |
| | | |
| Homeowner vacancy rate | 1.9% | |
| $h/(c+h+i)$ | | |
| Rental vacancy rate | 18.5% | |
| $f/(d+f+g)$ | | |

Appendix B: Segmentation Results for All Industries

| NAICS | Description | At least 1,000 jobs (2018) | Added 100 jobs from 2009-2018 | LQ>1.1 (2018) | Positive competitive shift score | Segmentation |
|-------|---|----------------------------|-------------------------------|---------------|----------------------------------|-------------------|
| 111 | Crop Production | 1 | | | 1 | |
| 112 | Animal Production and Aquaculture | | 1 | 1 | 1 | |
| 113 | Forestry and Logging | | | | | |
| 114 | Fishing, Hunting and Trapping | | | | | |
| 115 | Support Activities for Agriculture and Forestry | | | | | |
| 211 | Oil and Gas Extraction | | | | | |
| 212 | Mining (except Oil and Gas) | | | | 1 | |
| 213 | Support Activities for Mining | | | | | |
| 221 | Utilities | 1 | | 1 | | |
| 236 | Construction of Buildings | 1 | 1 | | 1 | Emerging Strength |
| 237 | Heavy and Civil Engineering Construction | 1 | 1 | | 1 | Emerging Strength |
| 238 | Specialty Trade Contractors | 1 | | | | |
| 311 | Food Manufacturing | | 1 | | 1 | |
| 312 | Beverage and Tobacco Product Manufacturing | | | | | |
| 313 | Textile Mills | | | 1 | 1 | |
| 314 | Textile Product Mills | | | | | |
| 315 | Apparel Manufacturing | | | | | |
| 316 | Leather and Allied Product Manufacturing | | | | | |
| 321 | Wood Product Manufacturing | | | | 1 | |
| 322 | Paper Manufacturing | | | | | |
| 323 | Printing and Related Support Activities | | | | | |
| 324 | Petroleum and Coal Products Manufacturing | | | | | |
| 325 | Chemical Manufacturing | 1 | | 1 | | |
| 326 | Plastics and Rubber Products Manufacturing | | | | | |

| | | | | | | |
|-----|--|---|---|---|---|---------------------------|
| 327 | Nonmetallic Mineral Product Manufacturing | | | | | |
| 331 | Primary Metal Manufacturing | | 1 | 1 | 1 | |
| 332 | Fabricated Metal Product Manufacturing | 1 | 1 | 1 | | Priority Retention Target |
| 333 | Machinery Manufacturing | 1 | 1 | 1 | | Priority Retention Target |
| 334 | Computer and Electronic Product Manufacturing | 1 | | | | |
| 335 | Electrical Equipment, Appliance, and Component Manufacturing | | | | | |
| 336 | Transportation Equipment Manufacturing | 1 | 1 | 1 | 1 | Current Strength |
| 337 | Furniture and Related Product Manufacturing | | | | | |
| 339 | Miscellaneous Manufacturing | | | | | |
| 423 | Merchant Wholesalers, Durable Goods | 1 | | | | |
| 424 | Merchant Wholesalers, Nondurable Goods | 1 | 1 | | 1 | Emerging Strength |
| 425 | Wholesale Electronic Markets and Agents and Brokers | 1 | | | | |
| 441 | Motor Vehicle and Parts Dealers | 1 | 1 | | | |
| 442 | Furniture and Home Furnishings Stores | | | | | |
| 443 | Electronics and Appliance Stores | | | | | |
| 444 | Building Material and Garden Equipment and Supplies Dealers | 1 | 1 | 1 | 1 | Current Strength |
| 445 | Food and Beverage Stores | 1 | 1 | 1 | | Priority Retention Target |
| 446 | Health and Personal Care Stores | 1 | 1 | | 1 | Emerging Strength |
| 447 | Gasoline Stations | | | | | |
| 448 | Clothing and Clothing Accessories Stores | 1 | 1 | 1 | 1 | Current Strength |
| 451 | Sporting Goods, Hobby, Musical Instrument, and Book Stores | | | | | |
| 452 | General Merchandise Stores | 1 | 1 | | 1 | Emerging Strength |
| 453 | Miscellaneous Store Retailers | 1 | | | | |
| 454 | Nonstore Retailers | 1 | 1 | 1 | | Priority Retention Target |
| 481 | Air Transportation | | | | | |
| 482 | Rail Transportation | | | | 1 | |
| 483 | Water Transportation | | | 1 | 1 | |
| 484 | Truck Transportation | | | | | |
| 485 | Transit and Ground Passenger Transportation | 1 | | 1 | | |
| 486 | Pipeline Transportation | | | | | |
| 487 | Scenic and Sightseeing Transportation | | 1 | 1 | 1 | |
| 488 | Support Activities for Transportation | | | | | |
| 491 | Postal Service | | | | | |
| 492 | Couriers and Messengers | | 1 | | 1 | |
| 493 | Warehousing and Storage | | | | | |
| 511 | Publishing Industries (except Internet) | 1 | | | 1 | |
| 512 | Motion Picture and Sound Recording Industries | | | | | |
| 515 | Broadcasting (except Internet) | | | | 1 | |

| | | | | | | |
|-----|---|---|---|---|---|---------------------------|
| 517 | Telecommunications | | | | | |
| 518 | Data Processing, Hosting, and Related Services | | | | | |
| 519 | Other Information Services | | | | | |
| 521 | Monetary Authorities-Central Bank | | | | | |
| 522 | Credit Intermediation and Related Activities | 1 | | | | |
| 523 | Securities, Commodity Contracts, and Other Financial Investments and Related Activities | | | | | |
| 524 | Insurance Carriers and Related Activities | 1 | | | | |
| 525 | Funds, Trusts, and Other Financial Vehicles | | | | | |
| 531 | Real Estate | 1 | | | | |
| 532 | Rental and Leasing Services | | | | | |
| 533 | Lessors of Nonfinancial Intangible Assets (except Copyrighted Works) | | | 1 | 1 | |
| 541 | Professional, Scientific, and Technical Services | 1 | | | | |
| 551 | Management of Companies and Enterprises | 1 | 1 | | 1 | Emerging Strength |
| 561 | Administrative and Support Services | 1 | 1 | | | |
| 562 | Waste Management and Remediation Services | | 1 | 1 | | |
| 611 | Educational Services | 1 | | 1 | | |
| 621 | Ambulatory Health Care Services | 1 | 1 | | | |
| 622 | Hospitals | 1 | | | | |
| 623 | Nursing and Residential Care Facilities | 1 | | 1 | | |
| 624 | Social Assistance | 1 | 1 | 1 | | Priority Retention Target |
| 711 | Performing Arts, Spectator Sports, and Related Industries | | | | | |
| 712 | Museums, Historical Sites, and Similar Institutions | | 1 | 1 | | |
| 713 | Amusement, Gambling, and Recreation Industries | 1 | 1 | | | |
| 721 | Accommodation | 1 | 1 | | | |
| 722 | Food Services and Drinking Places | 1 | 1 | | | |
| 811 | Repair and Maintenance | 1 | | | | |
| 812 | Personal and Laundry Services | 1 | 1 | | | |
| 813 | Religious, Grantmaking, Civic, Professional, and Similar Organizations | 1 | | | | |
| 814 | Private Households | 1 | 1 | 1 | 1 | Current Strength |
| 901 | Federal Government | 1 | | 1 | | |
| 902 | State Government | 1 | | | | |
| 903 | Local Government | 1 | | 1 | | |
| 999 | Unclassified Industry | | | | | |

Appendix C: Location Quotients for All Industries

| NAICS Code | Industry | LQ, 2009 | LQ, 2018 |
|------------|--|----------|----------|
| 111 | Crop Production | 0.86 | 1.04 |
| 112 | Animal Production and Aquaculture | 0.82 | 1.37 |
| 113 | Forestry and Logging | 0.23 | 0.12 |
| 114 | Fishing, Hunting and Trapping | 1.56 | 0.40 |
| 115 | Support Activities for Agriculture and Forestry | 0.32 | 0.24 |
| 211 | Oil and Gas Extraction | 0.00 | 0.00 |
| 212 | Mining (except Oil and Gas) | 0.21 | 0.28 |
| 213 | Support Activities for Mining | 0.04 | 0.01 |
| 221 | Utilities | 2.12 | 2.08 |
| 236 | Construction of Buildings | 0.71 | 0.83 |
| 237 | Heavy and Civil Engineering Construction | 0.56 | 0.72 |
| 238 | Specialty Trade Contractors | 0.89 | 0.88 |
| 311 | Food Manufacturing | 0.08 | 0.15 |
| 312 | Beverage and Tobacco Product Manufacturing | 0.43 | 0.47 |
| 313 | Textile Mills | 0.93 | 1.26 |
| 314 | Textile Product Mills | 0.56 | 0.52 |
| 315 | Apparel Manufacturing | 0.22 | 0.20 |
| 316 | Leather and Allied Product Manufacturing | 0.10 | 0.15 |
| 321 | Wood Product Manufacturing | 0.17 | 0.24 |
| 322 | Paper Manufacturing | 1.23 | 0.40 |
| 323 | Printing and Related Support Activities | 0.45 | 0.30 |
| 324 | Petroleum and Coal Products Manufacturing | 0.22 | 0.09 |
| 325 | Chemical Manufacturing | 2.80 | 2.06 |
| 326 | Plastics and Rubber Products Manufacturing | 0.81 | 0.68 |
| 327 | Nonmetallic Mineral Product Manufacturing | 0.39 | 0.38 |
| 331 | Primary Metal Manufacturing | 0.72 | 1.21 |
| 332 | Fabricated Metal Product Manufacturing | 1.13 | 1.24 |
| 333 | Machinery Manufacturing | 1.08 | 1.23 |
| 334 | Computer and Electronic Product Manufacturing | 0.60 | 0.49 |
| 335 | Electrical Equipment, Appliance, and Component Manufacturing | 0.92 | 0.77 |
| 336 | Transportation Equipment Manufacturing | 5.47 | 6.98 |
| 337 | Furniture and Related Product Manufacturing | 0.30 | 0.30 |
| 339 | Miscellaneous Manufacturing | 0.70 | 0.77 |
| 423 | Merchant Wholesalers, Durable Goods | 0.60 | 0.61 |
| 424 | Merchant Wholesalers, Nondurable Goods | 0.47 | 0.58 |
| 425 | Wholesale Electronic Markets and Agents and Brokers | 0.88 | 0.82 |
| 441 | Motor Vehicle and Parts Dealers | 1.00 | 1.04 |
| 442 | Furniture and Home Furnishings Stores | 0.74 | 0.82 |
| 443 | Electronics and Appliance Stores | 0.80 | 0.77 |
| 444 | Building Material and Garden Equipment and Supplies Dealers | 0.98 | 1.15 |

| | | | |
|-----|---|------|------|
| 445 | Food and Beverage Stores | 1.11 | 1.24 |
| 446 | Health and Personal Care Stores | 0.95 | 1.10 |
| 447 | Gasoline Stations | 0.66 | 0.70 |
| 448 | Clothing and Clothing Accessories Stores | 1.26 | 1.52 |
| 451 | Sporting Goods, Hobby, Musical Instrument, and Book Stores | 0.87 | 0.86 |
| 452 | General Merchandise Stores | 0.69 | 0.79 |
| 453 | Miscellaneous Store Retailers | 0.96 | 1.07 |
| 454 | Nonstore Retailers | 1.35 | 1.31 |
| 481 | Air Transportation | 0.02 | 0.01 |
| 482 | Rail Transportation | 0.67 | 0.89 |
| 483 | Water Transportation | 2.05 | 2.50 |
| 484 | Truck Transportation | 0.36 | 0.32 |
| 485 | Transit and Ground Passenger Transportation | 2.20 | 1.73 |
| 486 | Pipeline Transportation | 0.89 | 0.61 |
| 487 | Scenic and Sightseeing Transportation | 1.45 | 3.51 |
| 488 | Support Activities for Transportation | 0.36 | 0.20 |
| 491 | Postal Service | 0.00 | 0.00 |
| 492 | Couriers and Messengers | 0.56 | 0.81 |
| 493 | Warehousing and Storage | 0.90 | 0.53 |
| 511 | Publishing Industries (except Internet) | 0.80 | 1.00 |
| 512 | Motion Picture and Sound Recording Industries | 0.48 | 0.37 |
| 515 | Broadcasting (except Internet) | 0.37 | 0.53 |
| 517 | Telecommunications | 0.39 | 0.34 |
| 518 | Data Processing, Hosting, and Related Services | 0.41 | 0.08 |
| 519 | Other Information Services | 1.05 | 0.46 |
| 521 | Monetary Authorities-Central Bank | 0.00 | 0.00 |
| 522 | Credit Intermediation and Related Activities | 0.54 | 0.53 |
| 523 | Securities, Commodity Contracts, and Other Financial Investments and Related Activities | 0.30 | 0.33 |
| 524 | Insurance Carriers and Related Activities | 1.05 | 0.40 |
| 525 | Funds, Trusts, and Other Financial Vehicles | 4.90 | 0.00 |
| 531 | Real Estate | 0.60 | 0.62 |
| 532 | Rental and Leasing Services | 0.35 | 0.31 |
| 533 | Lessors of Nonfinancial Intangible Assets (except Copyrighted Works) | 0.61 | 1.16 |
| 541 | Professional, Scientific, and Technical Services | 0.78 | 0.68 |
| 551 | Management of Companies and Enterprises | 0.31 | 0.55 |
| 561 | Administrative and Support Services | 0.48 | 0.49 |
| 562 | Waste Management and Remediation Services | 1.03 | 1.14 |
| 611 | Educational Services | 1.35 | 1.26 |
| 621 | Ambulatory Health Care Services | 0.93 | 0.98 |
| 622 | Hospitals | 0.88 | 0.86 |
| 623 | Nursing and Residential Care Facilities | 1.68 | 1.75 |
| 624 | Social Assistance | 1.09 | 1.15 |
| 711 | Performing Arts, Spectator Sports, and Related Industries | 0.92 | 0.88 |
| 712 | Museums, Historical Sites, and Similar Institutions | 2.94 | 3.04 |
| 713 | Amusement, Gambling, and Recreation Industries | 0.92 | 1.03 |
| 721 | Accommodation | 0.96 | 1.00 |
| 722 | Food Services and Drinking Places | 1.01 | 1.04 |

| | | | |
|-----|--|------|------|
| 811 | Repair and Maintenance | 0.77 | 0.81 |
| 812 | Personal and Laundry Services | 0.96 | 1.01 |
| 813 | Religious, Grantmaking, Civic, Professional, and Similar Organizations | 0.66 | 0.67 |
| 814 | Private Households | 0.75 | 1.68 |
| 901 | Federal Government | 1.51 | 1.54 |
| 902 | State Government | 1.09 | 0.97 |
| 903 | Local Government | 1.69 | 1.54 |
| 999 | Unclassified Industry | 0.03 | 0.22 |

Appendix D: Industry Analysis Results for All Industries

| NAICS | Description | At least 1,000 jobs (2018) | LQ >1.1 (2018) | Segmentation | Recent U.S. Growth > U.S. | U.S. Share Increase (2009-2018) | Employ Mult. > State Avg. | Income Mult. > State Avg. | Industry Wage > State Avg. | Qualitative Trend Analysis | Sum |
|-------|---|----------------------------|----------------|--------------|---------------------------|---------------------------------|---------------------------|---------------------------|----------------------------|----------------------------|-----|
| 336 | Transportation Equipment Manufacturing | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | 8 |
| 332 | Fabricated Metal Product Manufacturing | 1 | 1 | 1 | 1 | | | | 1 | 1 | 6 |
| 333 | Machinery Manufacturing | 1 | 1 | 1 | 1 | | | | 1 | 1 | 6 |
| 524 | Insurance Carriers and Related Activities | 1 | | | 1 | 1 | | 1 | 1 | 1 | 6 |
| 551 | Management of Companies and Enterprises | 1 | | 1 | 1 | 1 | | | 1 | 1 | 6 |
| 624 | Social Assistance | 1 | 1 | 1 | 1 | 1 | | | | 1 | 6 |
| 541 | Professional, Scientific, and Technical Services | 1 | | | 1 | 1 | | | 1 | 1 | 5 |
| 621 | Ambulatory Health Care Services | 1 | | | 1 | 1 | | | 1 | 1 | 5 |
| 237 | Heavy and Civil Engineering Construction | 1 | | 1 | 1 | | | | 1 | | 4 |
| 424 | Merchant Wholesalers, Nondurable Goods | 1 | | 1 | 1 | | | | 1 | | 4 |
| 444 | Building Material and Garden Equipment and Supplies Dealers | 1 | 1 | 1 | 1 | | | | | | 4 |
| 445 | Food and Beverage Stores | 1 | 1 | 1 | | | | 1 | | | 4 |
| 454 | Nonstore Retailers | 1 | 1 | 1 | | 1 | | | | | 4 |
| 485 | Transit and Ground Passenger Transportation | 1 | 1 | | 1 | 1 | | | | | 4 |
| 611 | Educational Services | 1 | 1 | | 1 | 1 | | | | | 4 |
| 722 | Food Services and Drinking Places | 1 | | | 1 | 1 | | 1 | | | 4 |
| 902 | State Government | 1 | | | | | 1 | 1 | 1 | | 4 |
| 221 | Utilities | 1 | 1 | | | | | | 1 | | 3 |
| 236 | Construction of Buildings | 1 | | 1 | 1 | | | | | | 3 |
| 325 | Chemical Manufacturing | 1 | 1 | | | | | | 1 | | 3 |
| 331 | Primary Metal Manufacturing | | 1 | | 1 | | | | 1 | | 3 |
| 334 | Computer and Electronic Product Manufacturing | 1 | | | 1 | | | | 1 | | 3 |
| 423 | Merchant Wholesalers, Durable Goods | 1 | | | 1 | | | | 1 | | 3 |
| 448 | Clothing and Clothing Accessories Stores | 1 | 1 | 1 | | | | | | | 3 |
| 493 | Warehousing and Storage | | | | 1 | 1 | | | 1 | | 3 |

| | | | | | | | | | | |
|-----|---|---|---|---|---|---|---|---|---|---|
| 531 | Real Estate | 1 | | | 1 | | 1 | | | 3 |
| 561 | Administrative and Support Services | 1 | | | 1 | 1 | | | | 3 |
| 562 | Waste Management and Remediation Services | | 1 | | 1 | | | 1 | | 3 |
| 623 | Nursing and Residential Care Facilities | 1 | 1 | | | | 1 | | | 3 |
| 713 | Amusement, Gambling, and Recreation Industries | 1 | | | 1 | 1 | | | | 3 |
| 814 | Private Households | 1 | 1 | 1 | | | | | | 3 |
| 901 | Federal Government | 1 | 1 | | | | 1 | | | 3 |
| 903 | Local Government | 1 | 1 | | | | 1 | | | 3 |
| 238 | Specialty Trade Contractors | 1 | | | 1 | | | | | 2 |
| 322 | Paper Manufacturing | | | | | | 1 | | 1 | 2 |
| 425 | Wholesale Electronic Markets and Agents and Brokers | 1 | | | | | | 1 | | 2 |
| 441 | Motor Vehicle and Parts Dealers | 1 | | | | 1 | | | | 2 |
| 446 | Health and Personal Care Stores | 1 | | 1 | | | | | | 2 |
| 452 | General Merchandise Stores | 1 | | 1 | | | | | | 2 |
| 483 | Water Transportation | | 1 | | | | | 1 | | 2 |
| 488 | Support Activities for Transportation | | | | 1 | 1 | | | | 2 |
| 492 | Couriers and Messengers | | | | 1 | 1 | | | | 2 |
| 517 | Telecommunications | | | | | | 1 | 1 | | 2 |
| 518 | Data Processing, Hosting, and Related Services | | | | 1 | | | 1 | | 2 |
| 519 | Other Information Services | | | | 1 | 1 | | | | 2 |
| 523 | Securities, Commodity Contracts, and Other Financial Investments and Related Activities | | | | 1 | | | 1 | | 2 |
| 622 | Hospitals | 1 | | | | | | 1 | | 2 |
| 712 | Museums, Historical Sites, and Similar Institutions | | 1 | | 1 | | | | | 2 |
| 721 | Accommodation | 1 | | | 1 | | | | | 2 |
| 812 | Personal and Laundry Services | 1 | | | 1 | | | | | 2 |
| 111 | Crop Production | 1 | | | | | | | | 1 |
| 112 | Animal Production and Aquaculture | | 1 | | | | | | | 1 |
| 114 | Fishing, Hunting and Trapping | | | | | | | 1 | | 1 |
| 115 | Support Activities for Agriculture and Forestry | | | | 1 | | | | | 1 |
| 212 | Mining (except Oil and Gas) | | | | 1 | | | | | 1 |
| 213 | Support Activities for Mining | | | | 1 | | | | | 1 |
| 312 | Beverage and Tobacco Product Manufacturing | | | | 1 | | | | | 1 |
| 313 | Textile Mills | | 1 | | | | | | | 1 |
| 321 | Wood Product Manufacturing | | | | 1 | | | | | 1 |
| 324 | Petroleum and Coal Products Manufacturing | | | | | | | 1 | | 1 |
| 326 | Plastics and Rubber Products Manufacturing | | | | 1 | | | | | 1 |
| 335 | Electrical Equipment, Appliance, and Component Manufacturing | | | | 1 | | | | | 1 |
| 339 | Miscellaneous Manufacturing | | | | 1 | | | | | 1 |
| 453 | Miscellaneous Store Retailers | 1 | | | | | | | | 1 |

| | | | | | | | | | | |
|-----|--|---|---|--|---|--|---|---|--|---|
| 481 | Air Transportation | | | | 1 | | | | | 1 |
| 482 | Rail Transportation | | | | | | | 1 | | 1 |
| 484 | Truck Transportation | | | | 1 | | | | | 1 |
| 486 | Pipeline Transportation | | | | | | | 1 | | 1 |
| 487 | Scenic and Sightseeing Transportation | | 1 | | | | | | | 1 |
| 491 | Postal Service | | | | 1 | | | | | 1 |
| 511 | Publishing Industries (except Internet) | 1 | | | | | | | | 1 |
| 515 | Broadcasting (except Internet) | | | | | | 1 | | | 1 |
| 521 | Monetary Authorities-Central Bank | | | | 1 | | | | | 1 |
| 522 | Credit Intermediation and Related Activities | 1 | | | | | | | | 1 |
| 525 | Funds, Trusts, and Other Financial Vehicles | | | | 1 | | | | | 1 |
| 532 | Rental and Leasing Services | | | | 1 | | | | | 1 |
| 533 | Lessors of Nonfinancial Intangible Assets (except Copyrighted Works) | | 1 | | | | | | | 1 |
| 711 | Performing Arts, Spectator Sports, and Related Industries | | | | 1 | | | | | 1 |
| 811 | Repair and Maintenance | 1 | | | | | | | | 1 |
| 813 | Religious, Grantmaking, Civic, Professional, and Similar Organizations | 1 | | | | | | | | 1 |
| 999 | Unclassified Industry | | | | | | | 1 | | 1 |
| 113 | Forestry and Logging | | | | | | | | | 0 |
| 211 | Oil and Gas Extraction | | | | | | | | | 0 |
| 311 | Food Manufacturing | | | | | | | | | 0 |
| 314 | Textile Product Mills | | | | | | | | | 0 |
| 315 | Apparel Manufacturing | | | | | | | | | 0 |
| 316 | Leather and Allied Product Manufacturing | | | | | | | | | 0 |
| 323 | Printing and Related Support Activities | | | | | | | | | 0 |
| 327 | Nonmetallic Mineral Product Manufacturing | | | | | | | | | 0 |
| 337 | Furniture and Related Product Manufacturing | | | | | | | | | 0 |
| 442 | Furniture and Home Furnishings Stores | | | | | | | | | 0 |
| 443 | Electronics and Appliance Stores | | | | | | | | | 0 |
| 447 | Gasoline Stations | | | | | | | | | 0 |
| 451 | Sporting Goods, Hobby, Musical Instrument, and Book Stores | | | | | | | | | 0 |
| 512 | Motion Picture and Sound Recording Industries | | | | | | | | | 0 |