Housing Analysis:
City of Rochester, Vacuum Oil BOA

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Introduction

As a sub consultant to Bergmann Associates, Camoin Associates was asked to complete an analysis of the housing market for the Vacuum Oil Brownfield Opportunity Area (referred to as the "Vacuum Oil BOA" or the "BOA"), including comparisons to the larger Southwest Planning District and the City of Rochester as a whole. This analysis will support the development of plans for specific sites within the BOA which Camoin is undertaking for the Step 3 phase of the project.

To provide context for this assessment of housing, particularly for the affordability analysis, a demographic and socioeconomic analysis was requested. This housing market analysis therefore consists of four interrelated studies:

- Demographic and Socioeconomic Analysis
- General Economic Outlook
- Housing Supply and Demand
- Affordability of Housing

Each section is introduced with a brief description of the methodology employed and the geographies analyzed. Following the introduction, a section entitled *Takeaway Findings* lists the key findings of the analysis that will support the development of the site-specific scenarios and alternatives.

Camoin Associates prepared a detailed Market Analysis for the Step 2 component of the Vacuum Oil BOA, dated February of 2012, and much of the information presented in that report has been revisited and updated here. Because the focus of this report is housing, the specific markets for office and industrial space were not updated in this analysis.

Data Sources

Much of the data in this report were purchased from ESRI Business Analyst Online (ESRI) and Economic Modeling Specialists, Inc. (EMSI). ESRI's base data is the 2000 and 2010 Census. It uses proprietary statistical models and updated data from the U.S. Census Bureau, the U.S. Postal Service, and various other sources to project current statistics and future trends. ESRI data is often used for economic development, marketing, site selection, and strategic decision making. For more information, visit www.esri.com.

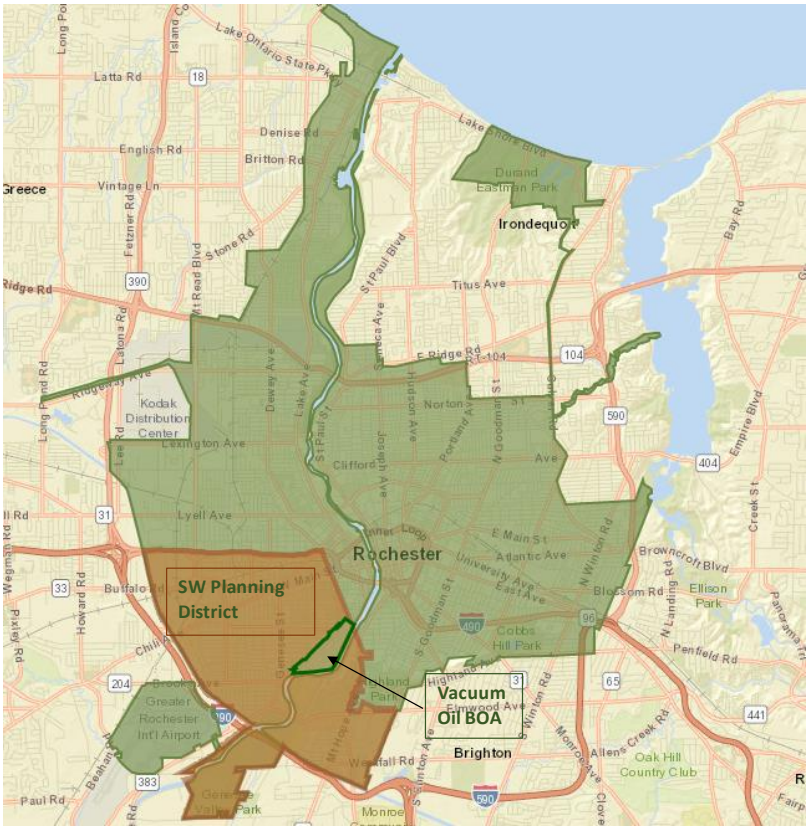
EMSI data are compiled from several sources, including the U.S. Census Bureau and U.S. Departments of Health and Labor using specialized proprietary processes and models to estimate current statistics and predict future trends. Visit www.economicmodeling.com for additional information.

Geographies Studied

Data for the housing analysis were analyzed for the following geographies:

- Vacuum Oil BOA – Delineated by drawing area boundaries, at the parcel level, as presented in the map provided by Bergmann Associates and titled "Vacuum Oil Phasing Plans."[1]
- Southwest (SW) Planning District – Delineated by a set of files provided by Bergmann Associates and that were uploaded to GIS-based database formats to establish reporting boundaries.
- City of Rochester – Municipal boundary.

As shown in the map to the right, these three geographies are layered within each other: the BOA is within the SW Planning District, which comprises a large portion of the City of Rochester. The smaller geographies are subsets of the larger areas and their statistics are therefore included in the analysis of the larger areas. For example, the population of the BOA is included in the population of the SW Planning District, which is included in the population of the city.



Executive Summary

This analysis provides context and support for the development of plans for specific sites within the Vacuum Oil BOA that are envisioned with a housing component, particularly where the City of Rochester will be evaluating different types of approaches for the same site. Updated demographic information, general economic outlook, and closer analysis of housing demand, supply, and affordability suggest the following perspectives on elements of the BOA goals:

- Home Ownership Goals -- Vacuum Oil BOA residents are less likely than other city residents to own their own homes (70% vs. 57%) and with a lower median household income ($18,539 vs. $30,990) will have greater difficulty buying and maintaining homes, especially maintaining the older housing stock typical of the BOA and the city. At the same time, BOA residents are also more likely to have young children, creating demand for larger spaces and different services. The City of Rochester offers diverse ownership support programs, and packaging or coordinating them to create a continuum of support from purchase to roof

[1] Because the map was recreated by hand in the ESRI mapping interface, an error rate of 1% to 2% may have been introduced by the unintentional exclusion or inclusion of parcels along South Plymouth. This is not expected to affect the statistics or conclusions of the analysis. It creates a slightly smaller geography and population than was presented for the BOA in the 2012 Market Analysis because that analysis delineated the BOA with census blocks that captured dense residential neighborhoods northwest of the BOA. The current method of drawing the BOA boundaries by parcel introduces fewer residential parcels from those neighborhoods.

replacement may make ownership less risky for households in the lower income groups. Not all of the programs apply to two-family units, although living in one unit and renting the attached unit may be a stable path to long term ownership in the neighborhood.

- New-Built Housing Costs – The purchase of new-built housing at market rates is out of reach for most BOA households, and while it may attract new residents there is already local concern about displacement of existing households. A household with an income just above the median, or $20,000, would pay 28% of its income to purchase and own a $50,000 home, just under the U.S. Department of Housing and Urban Development threshold of 30% for "cost burdened." A home with 1,600 square feet per unit costing $50,000 would need to be built for $31.25 per square foot ($50,000 ÷ 1,600), but with housing costs estimated closer to $90/SF by Bergmann Associates, this is unrealistic without subsidy. A majority, 58%, of BOA households earn less than $25,000 per year, compared with 41% citywide, resulting in more members of this community requiring assistance to purchase homes even at relatively low prices.
- Transitional Neighborhood – A long term goal of the BOA plan is to improve the economic well-being of existing residents through economic redevelopment and opportunity as well as improved housing choices. Housing should also be able to transition, so that a family is not dislocated if its increased income exceeds thresholds for support programs. Scalable programs that bridge the gap between what a household can afford and what the market rate is for an apartment, or for home ownership, may be more appealing than strict income-limited housing, particularly in a community valuing mixed-income neighborhoods.
- Infill vs. Full Redevelopment – Where the city will explore infilling vacant lots by demolishing and replacing only the most unsafe homes, compared with with complete demolition and redevelopment of multiple contiguous parcels, the availability of amenities within each scenario could be considered. An existing neighborhood with only housing, infilled with more housing, may be less supportive of community life than a redevelopment that includes amenities as well as housing, such as childcare, medical care, banking, and necessary retail such as pharmacy and grocery. Opportunities to encourage these amenities, in any scenario, should be considered for neighborhood redevelopment plans. Planned mixed-use and senior living communities can highlight best practices for integrating services with housing.
- New York State Tax Credits – New York State offers federal and state affordable housing tax credits centrally through the Housing Finance Authority, which favors larger projects that are likely to be out of scale with the character of the BOA community. Projects offering dozens to hundreds of units most commonly receive financing through tax-exempt bonds and assistance with tax credits. Local nonprofit organizations may have more ability to scale a project to the neighborhood, for example Plymouth Gardens, or to work with local private developers. The ability to be creative and activate multiple and non-State forms of financial support such as grants or foundation support may be an important criteria for identifying organizations or developers to partner with for redevelopment.
- Student Housing – Demand for student housing is not increasing in the area. Given the opportunity undergraduate students are likely to choose newer housing with more amenities and convenience, but their relocation can leave a void in previously occupied units, shifting population rather than increasing occupancy. Units formerly rented to students may then have difficulty transitioning back to other markets.

  Graduate students are more likely to be attracted to the one- and two-family units already prevalent in the BOA because of their demographics, including the likelihood of having young children. However, graduate enrollment at the University of Rochester is flat to declining, and the University is already targeting this group with its own housing communities. To take advantage of proximity to the campus, housing that is targeted at young families should participate in the University's housing assistance program, which is also available to faculty, and specifically identify the ability of the neighborhood to serve their needs as families, rather than as students.

Demographic and Socioeconomic Analysis

To provide context for the housing market and affordability analyses, general demographic and socioeconomic data were reviewed. Camoin Associates prepared a detailed Market Analysis for the Step 2 component of the Vacuum Oil BOA, dated February of 2012, and much of the same information has been updated. In some cases, new or different data is presented, both because of this report's closer focus on housing, and to take into account sociodemographic and economic trends that have developed since the preparation of the earlier report. Where findings for this report differ significantly from those of the 2012 analysis, they are noted.

Takeaway Findings

- The population loss that the City of Rochester suffered between 2000 and 2010 has been followed by a period of a more stable urban and regional population which will require housing, transportation, and jobs.
- Average household size in all three geographies has declined by just under 1% since 2010, now averaging 2.16 persons in the BOA, 2.49 in the SW Planning District, and 2.28 in the city. This trend is expected to continue with a decline of less than 1% by 2021.
- Median age of residents is similar in all three geographies: 31.3 years in the BOA, 29.6 in the SW Planning District, and 31.8 in the city overall. Only the BOA is expected to experience a decrease in median age by 2021, to 30.1, while the SW Planning District's will rise to 30.4 years and the city's to 32.5 years.
- 2016 Median Household Income (MHI) in the Vacuum Oil BOA is $18,539, $12,451 dollars lower than that of the City of Rochester ($30,990). The SW Planning District MHI of $29,099 is much closer to the average for the city. While a very modest increase (by $601, or 3.2%) in MHI is projected for the BOA, it is still expected to be dramatically lower than in the other geographies.
- BOA residents are more likely to be people of color - 80.7% identify as African-American or Black, compared with 64.1% in the SW Planning District and 42.2% citywide.
- BOA residents are more likely to be families with children, with 62.5% of residents living in family households, compared with 56.7% in the SW Planning District and 49.8% in the city overall. Housing planning for the BOA should take into consideration the needs of families to have critical services available nearby[2]:
    - Families with children may need more space than other households, and as a result may prefer single-family homes but, because of the costs of raising children, be poorly positioned to purchase;
    - Working parents require schools and childcare, and for parents with service-oriented jobs childcare may extend to non-traditional hours to accommodate evening/night or rotating shift schedules;
    - Working parents require reliable transportation that enables them to travel among home, childcare/school, doctors' offices, and work, often on short notice. Bus stops in and near the BOA are an advantage and the possibility of alternate transportation methods[3],[4] may be another positive for a neighborhood that may not have high levels of vehicle ownership.

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[2] *Childcare and Sustainable Community Development*, American Planning Association, 2011. https://www.planning.org/research/family/briefingpapers/childcare.htm

[3] *Uber Picks up Support from Black Clergy*, Albany Times Union, 11/25/16. http://www.timesunion.com/local/article/Uber-picks-up-support-from-black-clergy-10636918.php

[4] *Mayor Warren and Others Fight to Get Uber Approved in NYS*, RochesterFirst.com, 11/9/15. http://www.rochesterfirst.com/news/local-news/mayor-warren-and-others-fight-to-get-uber-approved-in-nys

Basic Demographic Trends

Basic Demographics							
	2010	2016	2021	# Change 2010 - 2016	% Change 2010 - 2016	# Change 2016 - 2021	% Change 2016 - 2021
Vacuum Oil BOA							
Population	1,799	1,796	1,800	(3)	-0.2%	4	0.2%
Households	822	832	841	10	1.2%	9	1.1%
Average Household Size	2.18	2.16	2.14	(0.02)	-0.9%	(0.02)	-0.9%
Owner Occupied Housing Units	172	158	156	(14)	-8.1%	(2)	-1.3%
Renter Occupied Housing Units	650	674	685	24	3.7%	11	1.6%
Median Age	30.4	31.3	30.1	0.9	3.0%	(1.2)	-3.8%
Median Household Income	n/a	$18,539	$19,140	n/a	n/a	$601	3.2%
Family Households	386	380	379	(6)	-1.6%	(1)	-0.3%
SW Planning District							
Population	45,286	44,927	44,800	(359)	-0.8%	(127)	-0.3%
Households	16,145	16,166	16,217	21	0.1%	51	0.3%
Average Household Size	2.51	2.49	2.47	(0.02)	-0.8%	(0.02)	-0.8%
Owner Occupied Housing Units	6,662	6,222	6,093	(440)	-6.6%	(129)	-2.1%
Renter Occupied Housing Units	9,483	9,944	10,124	461	4.9%	180	1.8%
Median Age	28.7	29.6	30.4	0.9	3.1%	0.8	2.7%
Median Household Income	n/a	$29,099	$28,181	n/a	n/a	($918)	-3.2%
Family Households	9,245	9,094	9,040	(151)	-1.6%	(54)	-0.6%
City of Rochester							
Population	210,565	210,312	210,654	(253)	-0.1%	342	0.2%
Households	87,027	87,637	88,211	610	0.7%	574	0.7%
Average Household Size	2.30	2.28	2.27	(0.02)	-0.9%	(0.01)	-0.4%
Owner Occupied Housing Units	32,779	31,042	30,669	(1,737)	-5.3%	(373)	-1.2%
Renter Occupied Housing Units	54,248	56,595	57,543	2,347	4.3%	948	1.7%
Median Age	31.0	31.8	32.5	0.8	2.6%	0.7	2.2%
Median Household Income	$30,138	$30,990	$29,501	$852	2.8%	($1,489)	-4.8%
Family Households	43,688	43,323	43,268	(365)	-0.8%	(55)	-0.1%
Rochester MSA							
Population	1,079,671	1,088,881	1,095,820	9,210	0.9%	6,939	0.6%
Households	430,071	438,179	443,454	8,108	1.9%	5,275	1.2%
Average Household Size	2.42	2.39	2.38	(0.03)	-1.2%	(0.01)	-0.4%
Owner Occupied Housing Units	289,865	288,543	290,399	(1,322)	-0.5%	1,856	0.6%
Renter Occupied Housing Units	140,206	149,636	153,055	9,430	6.7%	3,419	2.3%
Median Age	39.3	40.3	40.9	1.0	2.5%	0.6	1.5%
Median Household Income	$51,810	$52,845	$56,403	$1,035	2.0%	$3,558	6.7%
Family Households	271,155	273,321	275,137	2,166	0.8%	1,816	0.7%
New York State							
Population	19,378,102	19,934,506	20,445,093	556,404	2.9%	510,587	2.6%
Households	7,317,755	7,508,958	7,689,093	191,203	2.6%	180,135	2.4%
Average Household Size	2.57	2.58	2.58	0.01	0.4%	0.00	0.0%
Owner Occupied Housing Units	3,897,837	3,902,495	3,947,826	4,658	0.1%	45,331	1.2%
Renter Occupied Housing Units	3,419,918	3,606,463	3,741,267	186,545	5.5%	134,804	3.7%
Median Age	37.9	38.7	39.5	0.8	2.1%	0.8	2.1%
Median Household Income	$55,603	$58,196	$65,431	$2,593	4.7%	$7,235	12.4%
Family Households	4,649,791	4,719,468	4,806,199	69,677	1.5%	86,731	1.8%

Source: ESRI, except Median Household Income for 2010 from 2006 - 2010 which is from American Community Survey 5-year Estimates.

Population, household, type of residence, age and income are shown above for the Vacuum Oil BOA, SW Planning District, and City of Rochester, with Rochester Metropolitan Statistical Area for comparison. Median household income for New York State is $58,196 per year.

One of the most important findings is that the population loss that the City of Rochester suffered between 2000 and 2010 has diminished. In 2000 city population was 219,773 with 88,999 households[5], and by 2010, as shown in the table, population had declined to 210,565 and households to 87,027, losses of 9,208 people and 1,972 households. Over the next period, to 2016, the city lost only 253 people but gained 610 households, indicting more stability although a smaller population. This household growth is likely the result of increases in residents in the 20 – 24 year and 24 – 35 year age groups, which often form their own households at these ages. Population by age is presented graphically on page 9 and in more detail in Appendix A.

The stable population will require more housing, transportation, and jobs than would have been anticipated when population was expected to continue to decline.

Average household size in all three geographies has declined by just under 1% since 2010, now at 2.16 persons in the BOA, 2.49 in the SW Planning District, and 2.28 in the city. This trend is expected to continue with a decline of less than 1% by 2021.

Median age of residents is similar in all three geographies: 31.3 years in the BOA, 29.6 in the SW Planning District, and 31.8 citywide. Only the BOA is expected to experience a decrease in median age by 2021, to 30.1, while the SW Planning District's will rise to 30.4 years and the city's to 32.5 years. By contrast, the median age for the Rochester MSA is 40.3 years and for New York State it is 38.7 years, making the city and its subsectors significantly younger than the region and the state. The younger population has its own particular set of needs and desires when it comes to housing, services, and community amenities that should be considered when developing a plan for the BOA.

2016 Median Household Income (MHI) in the Vacuum Oil BOA is $18,539, $12,451 lower than that of the City of Rochester ($30,990). The SW Planning District MHI of $29,099 is much closer to the average for the city. While a very modest increase (by $601, or 3.2%) in MHI is projected for the BOA, it will still be dramatically lower than in the other geographies. MHI projections are based on current trends, which show very little income growth since 2010.

MHI measures the aggregate income of all residents in a household. Two-earner households have a higher MHI than either individual would if living alone, and as a result, if all other factors remain the same the choice about whether to form a household has a significant effect. Average household size has been declining in the BOA, the SW Planning District, and the city. This can be the result of fewer children per family, but also of delayed marriage or no marriage among working residents, separation and divorce of couples formerly sharing a household, and in the case of elderly households the death of a partner. While fewer children may increase a household's spending capacity per member, the other factors are all trends toward lower aggregate income per household – including especially where two-adult households with a single income split into two households.

Adult children living at home, discussed in news media as an outcome of the recession and student debt burdens, would in theory spur an increase in MHI, assuming the adult children had some income, if not enough for a separate household. The first students affected by the ripples of the financial crisis would have completed a bachelors' level college degree in 2009 or 2010, and within the past six years there should have been time for MHI to increase in

[5] Data source: EMSI Market Profile created in 2011 from Camoin Associates files for Step 2 BOA. EMSI no longer publishes the 2000 Census figures that were used to generate that report.

response[6]. Statistics for the three geographies do not reflect this trend – if younger adults are rejoining existing households the MHI effects are either too slight to measure, or are offset by factors reducing MHI.

Population Characteristics

Age

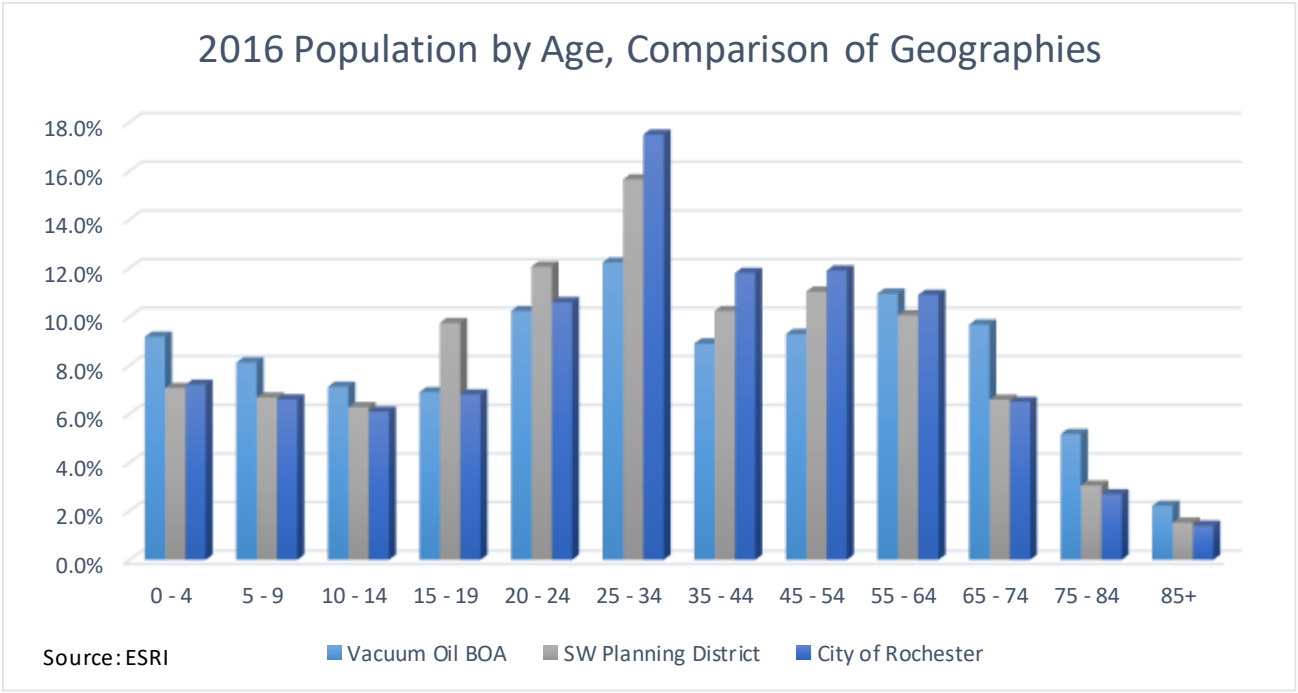
A key factor in developing a context for the housing analysis is the age of the resident population. This affects not just the amount of housing – children not needing separate households – but the type and number of bedrooms. Seniors remaining more active and aging in place can alter the type of housing both wanted and needed. Smaller families in theory may reduce the need for larger homes to allow each child a bedroom, but in the City of Rochester and the BOA and SW Planning District sections, the relatively low household income is likely to make smaller homes a necessity regardless of the number of children simply because they may be more affordable.

The two charts below, "2016 Population by Age, Comparison of Geographies" and "2021 Population by Age, Comparison of Geographies," graphically show the age distribution of residents of the BOA, the SW Planning District, and the City of Rochester. Median age for these geographies is very close (31.3, 29.6, and 31.8 for each, respectively) but the distribution that achieves that average is different.

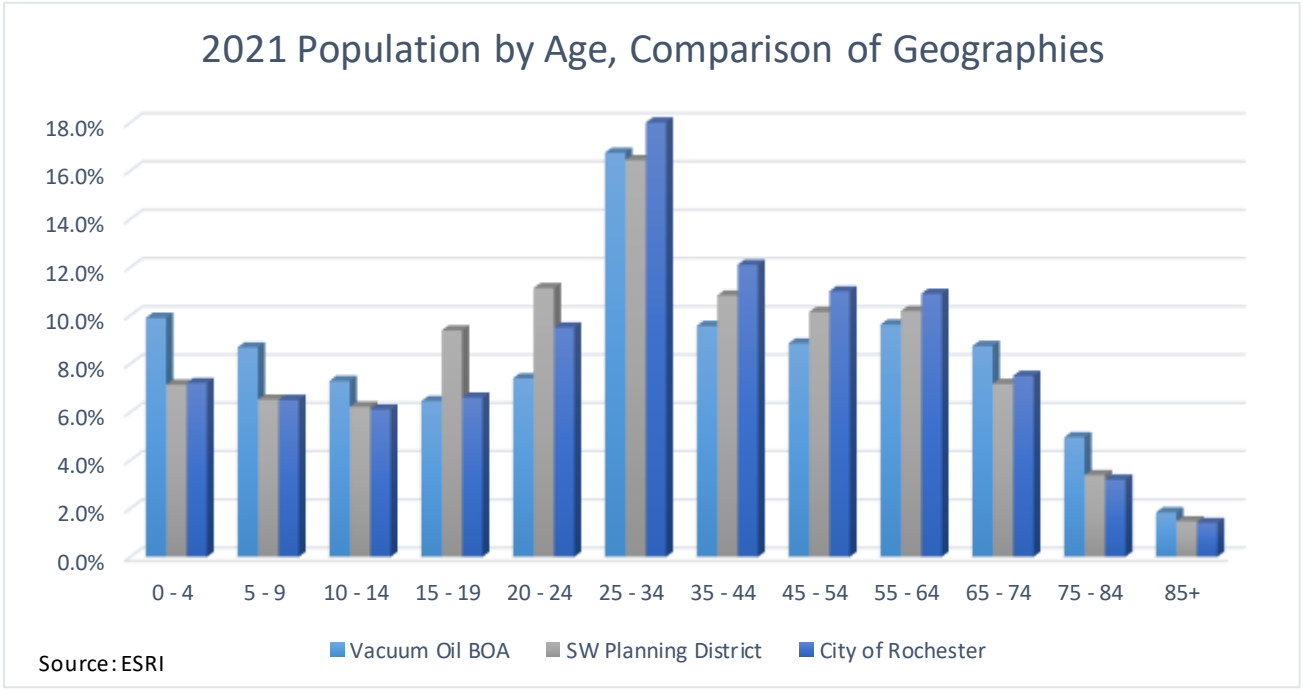
In the 2016 chart, all geographies have the largest cohort in the years 25 – 35, younger working adults. For the city, the dark blue bar is noticeably higher than for the BOA (light blue), at nearly 18% of the population compared with under 12%. The BOA has the highest populations of children and also of adults aged 55 and over. The city has the lowest populations of children and teenagers (first four age groups) and also of seniors aged 65 and over (last three age groups.) It should be noted that resident groups of persons under the age of 25 comprise only 5 years, while older groups comprise 10 years. This can somewhat understate the size of the youngest cohorts when compared to the older cohorts. However, the finer-grained composition provides a good comparison *within* each age group across geographies, particularly the concentration of very young children in the BOA. These smaller cohorts are dependent children, with different needs, particularly for housing and schools, from the more independent working adult cohorts. Of note in this chart:

- BOA population is more evenly distributed among age groups, resulting in a relatively greater proportion of the population either too young to work or aging beyond prime working years, and both populations needing, in general, more family care and community services.
- City population is relatively more concentrated in working age adults, beginning with the cohort of ages 20 – 24 through 55 – 64 and dropping sharply for 65+. This indicates that families are likely choosing not to live in the urban environment, and retirees are not remaining.
- SW Planning District population is generally between these two, at first not surprising since it includes the BOA but is a substantial portion of the city overall. However, the BOA's 1,796 residents comprise only 4% of the SW Planning Districts 44,927 residents, not a large enough component for the BOA population alone to create such a difference from the city overall. The SW Planning District, with nearly 45,000 residents, is 21% of the city population and the fact that its age group characteristics are more concentrated among younger and older cohorts likely indicates that the working-adults cohorts of 25 – 34, 35 – 44, and 45 – 54, which are so marked in the city overall, live anywhere *except* the SW Planning District and the BOA. It should mirror the city statistics more closely than it does, given the relative size of its population.

[6] ESRI uses the annual American Community Survey for MHI, making it more sensitive to trends than the 10-year Census data would have been.



The age distribution among the geographies is not projected to change substantially over the next five years; the BOA continues to have a "flatter" distribution among all age cohorts, although with a jump in adults 25 - 34. The SW Planning District's distribution is expected to mirror that of the BOA more than that of the city, as it does for 2016.



Household Composition

The population charts show the distribution of age cohorts for each geography. Household composition provides further detail on household size, particularly families with children and seniors, whose housing needs are different, and also detail on school status and whether seniors reside alone or with family.

The first table, "Households by Size" divides all households into family, which includes children but also other relatives, or non-family households, which are unrelated persons sharing a household.

Family Households. The BOA stands out as a primarily family area, with 62.5% of residents, compared with 56.7% in the SW Planning District and 49.8% in the city overall.

More than 20% of households in the BOA are families of 3 persons, and together with the 17.7% of households of 3 persons, comprise a plurality of 3-4 person households at 37.8%. These households need more living space than smaller households, but, as noted above in "Basic Demographic Trends," BOA households have a much lower MHI than the SW Planning District or the city and therefore less ability to afford more space.

The SW Planning District has fewer 3- or 4- person households than the BOA. Since households of 3 – 4 persons are more likely to include children[7], this is consistent with the population distribution that shows the BOA has relatively more children than either the SW Planning District or the city. The majority of family households in the city, 20.5%, have only two persons, indicating either married couples without children, or one parent/one child households. Married seniors would be included as 2-person households.

Non-Family Households.

A slight majority of households citywide are non-family, at 50.2%. Of these, most are 1-person and a few are 2-person. The city therefore has not only the highest median household income, but the highest number of persons living alone, indicating that these persons may be likely to have the financial means to live alone.

As expected from the analysis of family households, non-family households make up a smaller percentage in the SW Planning District and the BOA.

Overall, non-family households across the geographies are largely 1- or 2-person households. However, within the SW Planning District and the city, 1,737 households (1% to 2%,) are comprised of three or more unrelated persons. This number does not include designated institutional housing for persons with disabilities. These households instead are likely to be groups of students or younger adults post-graduation, sharing quarters to save housing costs. None of these households are in the BOA, which has a separate and specifically designated student housing complex but does not appear currently to attract multi-student household sharing groups, or even, with only 17 households comprised of 2 unrelated persons, which may be roommate arrangements.

[7] This analysis does not differentiate between adults and children; a 3-person household could be comprised of two parents/adults and one child, one parent and two children, a child with parent and grandparent, etc.

Households by Size, 2016						
	Vacuum Oil BOA		SW Planning District		City of Rochester	
	Residents	Percent of Residents	Residents	Percent of Residents	Residents	Percent of Residents
Family Households						
2-Person	107	14.4%	3,862	23.5%	17,602	20.5%
3-Person	149	20.1%	2,384	14.5%	11,427	13.3%
4-Person	131	17.7%	1,633	9.9%	6,970	8.1%
5-Person	14	1.9%	868	5.3%	3,854	4.5%
6-Person	17	2.3%	376	2.3%	1,779	2.1%
7+ Person	46	6.2%	208	1.3%	1,173	1.4%
Subtotal: Family	*464*	*62.5%*	*9,331*	*56.7%*	*42,805*	*49.8%*
Non-Family Households						
1-Person	261	35.2%	5,695	34.6%	34,733	40.4%
2-Person	17	2.3%	1,095	6.7%	7,079	8.2%
3-Person	0	0.0%	209	1.3%	948	1.1%
4-Person	0	0.0%	61	0.4%	331	0.4%
5-Person	0	0.0%	12	0.1%	82	0.1%
6-Person	0	0.0%	37	0.2%	37	0.0%
7+ Person	0	0.0%	10	0.1%	10	0.0%
Subtotal: Non-Family	*278*	*37.5%*	*7,119*	*43.3%*	*43,220*	*50.2%*
Total Households	**742**	**100%**	**16,450**	**100%**	**86,025**	**100%**

Source: ESRI

The table below, "Household Composition, Seniors," specifically identifies the households of residents aged 65 and older. In the BOA a majority of seniors live alone, while in the SW Planning District and the city they are nearly evenly divided between seniors living alone and seniors living with family (including but not limited to spouses.) Seniors in the BOA are therefore more likely to be in need of accessible or supportive housing, or community services to assist with aging in place, since family members are less likely to be available.

Household Composition, Seniors						
	Vacuum Oil BOA		SW Planning District		City of Rochester	
	Residents	Percent of Residents	Residents	Percent of Residents	Residents	Percent of Residents
Seniors Aged 65 +						
Single Person (Senior Living Alone)	102	63.0%	1,510	46.0%	7,562	49.5%
2+ Person, (Senior Living with Family)	60	37.0%	1,681	51.2%	7,170	46.9%
2+ Person, (Senior Living with Non Family)	0	--	90	2.7%	541	3.5%
Total	162	100%	3,281	100%	15,273	100%

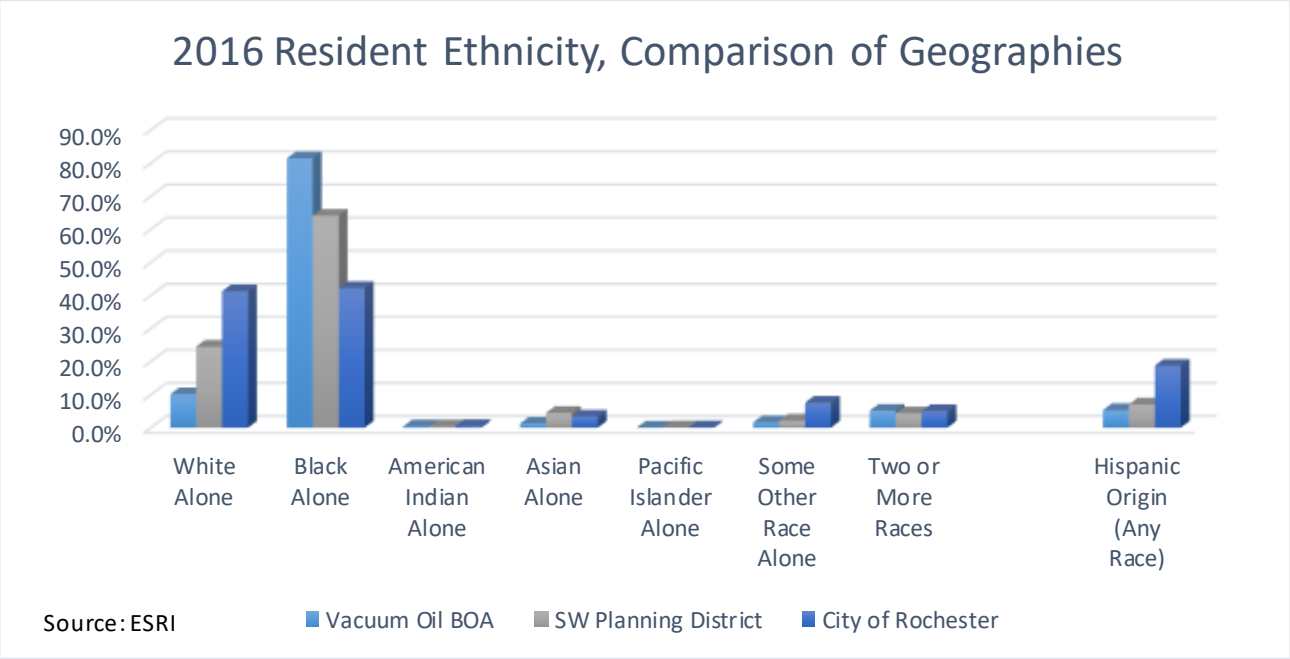
Source: ESRI

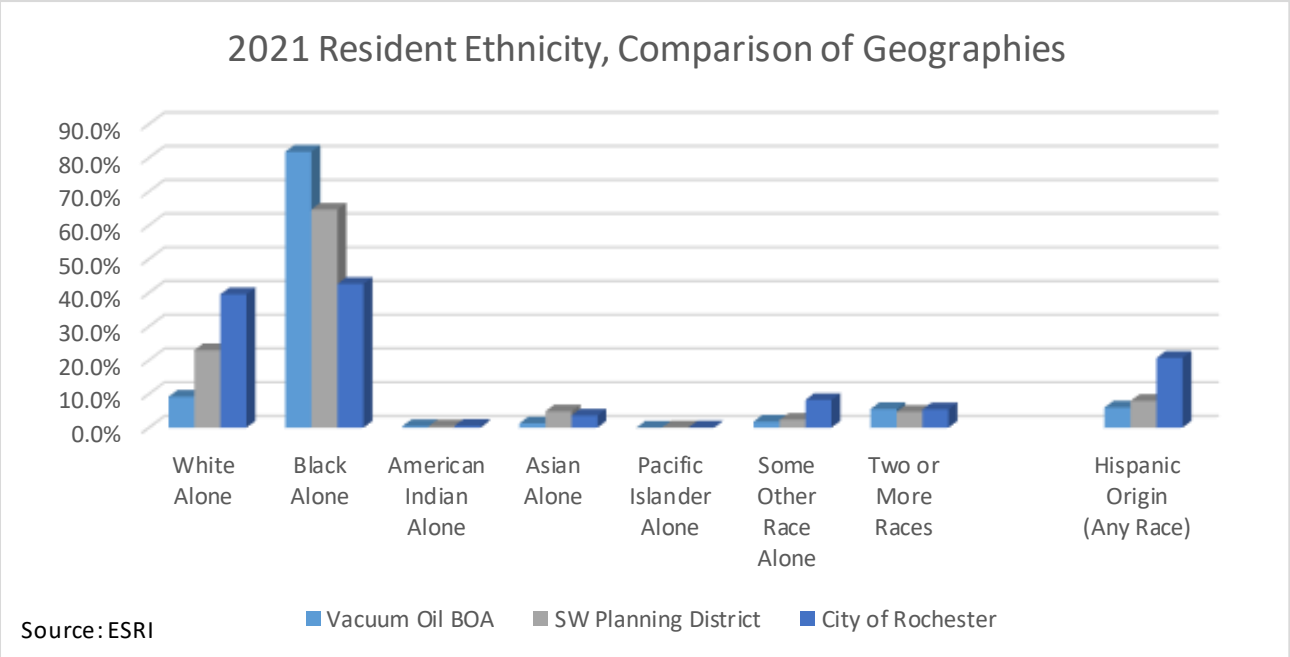
Ethnicity or Race

The ethnicity of the three geographies is presented in two charts below, the first for 2016 and the second a projection for 2021 based on recent trends. These data, collected from the ESRI database, are from the American Community Survey performed annually by the Census Bureau, in which survey respondents self-identify their ethnic affiliation. In both charts, "Hispanic Origin (Any Race)" is a separate category, as survey respondents may choose this *in addition* to any other race.

The ethnic, or racial, distribution of the BOA, the SW Planning District, and the city are not projected to change over the next five years. A very slight increase in residents identifying as Hispanic Origin is seen across all geographies.

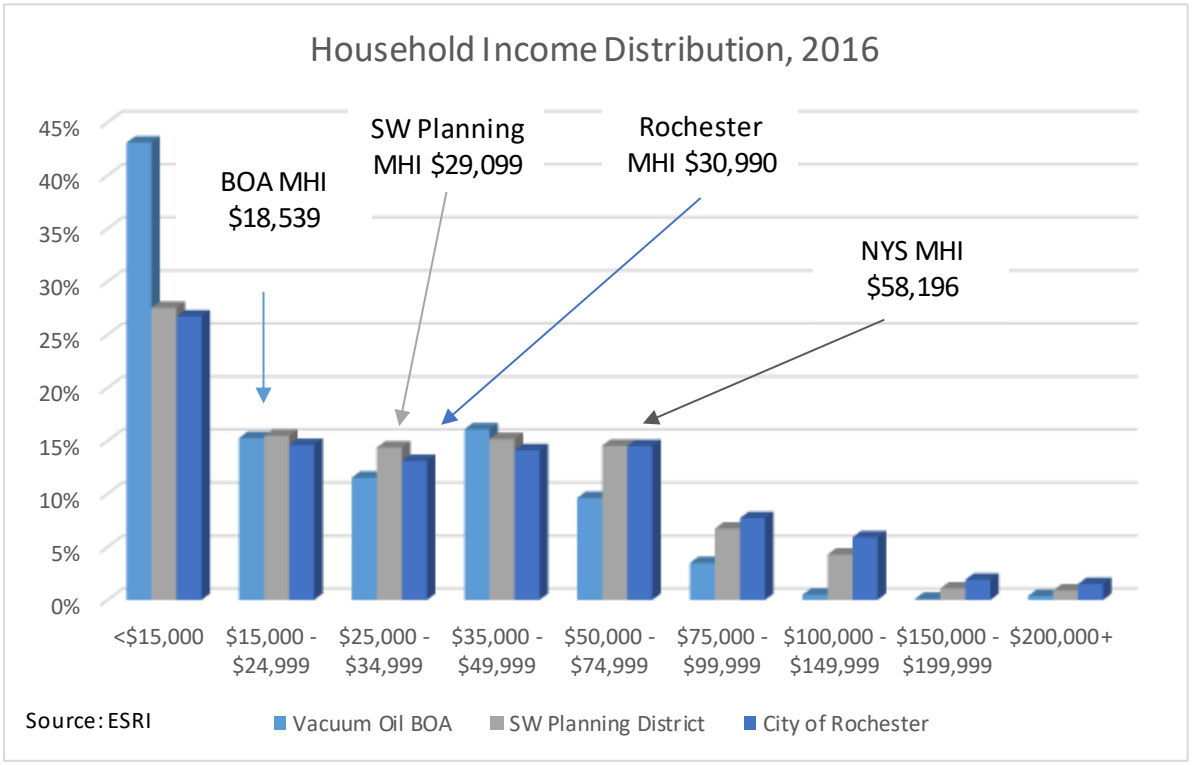
Currently, the highest concentration any ethnicity or race is the proportion of residents identifying as Black Alone in the BOA, at nearly 80% of residents. In the SW Planning District Black Alone accounts for more than 60% of residents, while in the city that number is 40%. In no geography does the percent of residents identifying as any race other than Black Alone or White Alone exceed 6%, except that within the city "other" is 7.6%. Detailed tables supporting these charts are included in Appendix A, "Demographics Details."





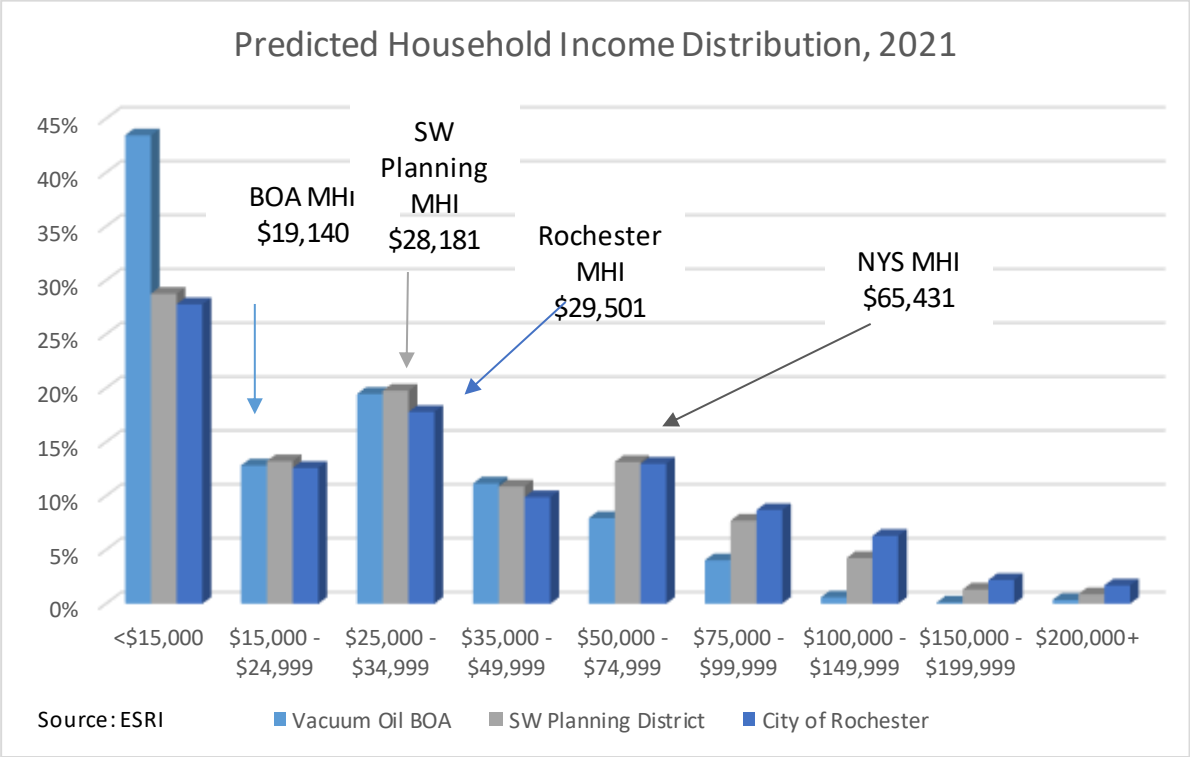
Household Income and Income Distribution

Median household income is the annual dollar amount of income that divides the households into two sets: 50% with a household income below the median, and 50% with a household income above the median. It does not show how far below or above the median the households are. The chart below, "Household Income Distribution, 2016" shows where households fall across a range of income brackets.



With an MHI of $18,539 it is clear from the Basic Demographics table that the BOA is substantially poorer than the SW Planning District and the city. The income distribution chart shows that nearly 45% of BOA households have income below $15,000 per year. Not surprisingly, almost no BOA households are in the three income brackets at or above $100,000 per year. The SW Planning District, as in other measures, is closer to the overall city income distribution than to that of the BOA. In what may be considered low-to-moderate income brackets for a family household, ($15,000 - $24,999; $25,000 - $34,999; $35,000 - $49,999) the BOA, the SW Planning District, and the city have similar percentages, generally between 10% and 15% for each bar in each bracket. It appears that it is at either end of the spectrum – the poorest and the wealthiest – that the BOA differs most from the other geographies.

Predictions for MHI distribution in 2021 are similar to 2016, with the BOA continuing to have households concentrating in the lowest bracket. The next largest cluster of MHI for all three geographies, which for 2016 was (barely) the bracket $35,000 - $49,999, is now clearly in a lower bracket, $25,000 - $34,999. Household income distribution has shifted downward across all geographies, consistent with the predicted decrease in MHI for the SW Planning District and the city, and the extremely modest $601 increase for the BOA.



Another measure of household income status measures whether households fall below federal poverty levels. These take into account the number of persons in a household; the more persons per household the higher the income can be and still be below poverty level. The table below, "Household Poverty and Disability Status" presents the number and percent of residents of each geography according to federal poverty status. Households are designated as below poverty level by the federal government. The table also presents households receiving cash public assistance and households participating in the Supplemental Nutrition Assistance Program (SNAP, or Food Stamps) participation. Both forms of assistance are voluntary; households may be eligible but not participate. The data in the table is participants only. Finally, the table shows households that include one or more persons with a disability, not a poverty indicator but often an indicator of the need for additional forms of support or community assistance.

2016 Household Poverty and Disability Status						
	Vacuum Oil BOA		SW Planning District		City of Rochester	
Indicator	Residents	Percent of Residents	Residents	Percent of Residents	Residents	Percent of Residents
Family with Income Below Poverty Level	238	29.0%	2,962	18.0%	13,287	15.4%
Non Family with Income Below Poverty Level	93	11.3%	2,240	13.6%	12,084	14.0%
Households Receiving Cash Public Assistance	139	16.9%	2,233	13.6%	9,901	11.5%
Households Receiving SNAP Benefits	445	54.1%	6,076	36.9%	29,116	33.8%
Households with 1 or More Persons with a Disability	249	30.3%	5,154	31.3%	25,833	30.0%
Total Households	822		16,450		86,025	

Note: Households may include residents fitting more than one category; total residents per category exceeds total households.

Source: ESRI

In the Vacuum Oil BOA, 29% of family households are considered to be below the federal poverty level. 16.9% of households receive cash public assistance and 54.1% receive SNAP benefits. The BOA has a higher rate of family poverty and cash and food public assistance than either the SW Planning District or the city overall – the percent of families below the poverty level is nearly twice as high in the BOA as in the city. The fact that the SW Planning District and the city have slightly higher rates of poverty among non-family households (13.6% and 14.0% compared with the BOA's 11.3%) suggests that these areas may have more seniors below poverty level, since they have more seniors over all.

Disability status is consistent across all three geographies. However, poverty and disability status are not either/or; given the high poverty levels in the BOA the area may have a high concentration of persons with disabilities who are also among the poorest residents, resulting in a gap between need for housing and services and the ability to pay for them.

General Economic Outlook

This section of the analysis presents an overview of the regional economy, including industries that contribute to the economy, employment growth expectations, and employment trends within industrial sectors. It begins with an analysis of commuting patterns to provide a context for where residents of the three geographies work, and how they get there.

Takeaway Findings

- Job growth in the Rochester region is expected to lag substantially behind the state and nation overall. Average annual earnings for jobs in the region already lag the state and nation considerably. The rate of regional job growth will be only marginally stronger than that of the City of Rochester.
- Job growth per capita is faster in the city than suburban areas, with 33.6% of new jobs expected to be located in the city, which has only 19% of the total MSA population.
- Manufacturing is a substantial component of the regional economy but is projected to decline significantly in the future. Between 2015 and 2021, a loss of 5,200 manufacturing industry jobs is anticipated. Weakness in manufacturing has resulted in relatively high unemployment figures.
- Aside from Manufacturing, the Information sector will continue to decline in the region along with Government and Retail industries.
- Health Care related industries and jobs are the brightest spot for the local and regional economy. Jobs in the Health Care industry are expected to grow by 11% or nearly 9,000 jobs between 2015 and 2021.
- Other notable industries that will gain substantial jobs in the near future include Accommodation and Food Services; Educational Services; and Professional, Scientific, and Technical Services; and Other Services.
- Job growth in Monroe County, a smaller geography more reachable for BOA residents who rely on public transportation, is expected to be primarily in occupations with lower entry-level educational requirements and lower median hourly wages. An increase in educational attainment, for example from high school graduation to a post-secondary level of training, opens up opportunities such as nursing assistant which can pay well above the current BOA median income.

Commuting Patterns

Most residents of the City of Rochester leave the city every day to go to their jobs. Only 23.8% of jobs located within the City of Rochester employ city residents, and of these more than half are in the 30 – 54 age range, leaving younger persons most likely to be working farther from their home. More than three quarters of the persons employed in the city commute from the surrounding areas, a proportion that has remained fairly stable even over a ten-year period of job losses.

In 2004, 26.9%, or 43,394, of the 161,366 jobs in the city were filled by city residents and 73.1% by commuters. By 2014, the job count had dropped to 133,097, and 23.8%, or 31,705, were filled by city residents and 76.2% by commuters. During this period, city residents became slightly less likely to work within the city. The data is presented in the table below.

Commuters and Residents, City of Rochester				
	2014		2004	
	#	%	#	%
Jobs in the City of Rochester	133,097	100.0%	161,366	100.0%
Commuters	101,392	76.2%	117,972	73.1%
City Residents	31,705	23.8%	43,394	26.9%
Age of Commuters Working in City				
Workers Aged 29 or younger	18,987	18.7%	20,192	17.1%
Workers Aged 30 to 54	56,477	55.7%	80,261	68.0%
Workers Aged 55 or older	25,928	25.6%	17,519	14.9%
Age of City Residents Working in City				
Workers Aged 29 or younger	8,238	26.0%	11,907	27.4%
Workers Aged 30 to 54	17,055	53.8%	25,761	59.4%
Workers Aged 55 or older	6,412	20.2%	5,726	13.2%

Source: CensusOnTheMap

With most working city residents employed in the Rochester MSA, the economic base analysis focuses on the Rochester MSA as a source of jobs and growth, not just the city.

The first component of the analysis is therefore how city residents get to work, and how long it takes. Proximity to jobs is a major factor in housing choice, but the poorest residents have the least ability to choose proximity over cost. The growth of suburban office/industrial and flex facilities puts further pressure on these households by increasing jobs in communities where housing costs may be out of reach. Transportation options therefore become more important.

The table below, "Transportation and Commute Times" shows how residents of the BOA, the SW Planning District, and the city get to work, and how long they travel each way. The public transportation system in the city is buses; there is a stop within the BOA that takes riders to a downtown transportation hub where transfer to other city areas is possible. Other nearby bus stops can take passengers more directly to the areas around the University of Rochester or the Strong Memorial Hospital. Reaching jobs outside of the urban area is more likely to require driving alone or carpool arrangements.

A substantial majority, 70.2%, of city residents drive to work and a plurality of 45.1% travel between 10 and 19 minutes, by any method. These statistics likely indicate driving to a job in the suburban portions of the MSA, or the outskirts of the city where it borders these communities. Very few take public transportation or walk on a regular basis (8.1% and 6.6%, respectively.) It is important to note that while walkability and walking/biking to work is considered a community good in many areas of the U.S., the Rochester area experiences harsh winter weather that makes walking and biking year-round less feasible and at times dangerous. Walking/biking statistics should be considered in this context.

BOA residents are much more likely to carpool or use public transportation than SW Planning District or overall city residents. Only 53% drive alone, while 20.1% carpool and another 16.6% use public transportation. Commutes are longer for BOA residents, with 43.2% of residents with commutes of 20 minutes or longer, compared with 35.8% of residents in the SW Planning District and 39.5% in the city overall. This may be a result of the relative slowness of public transportation, particularly with transfers, compared with driving directly.

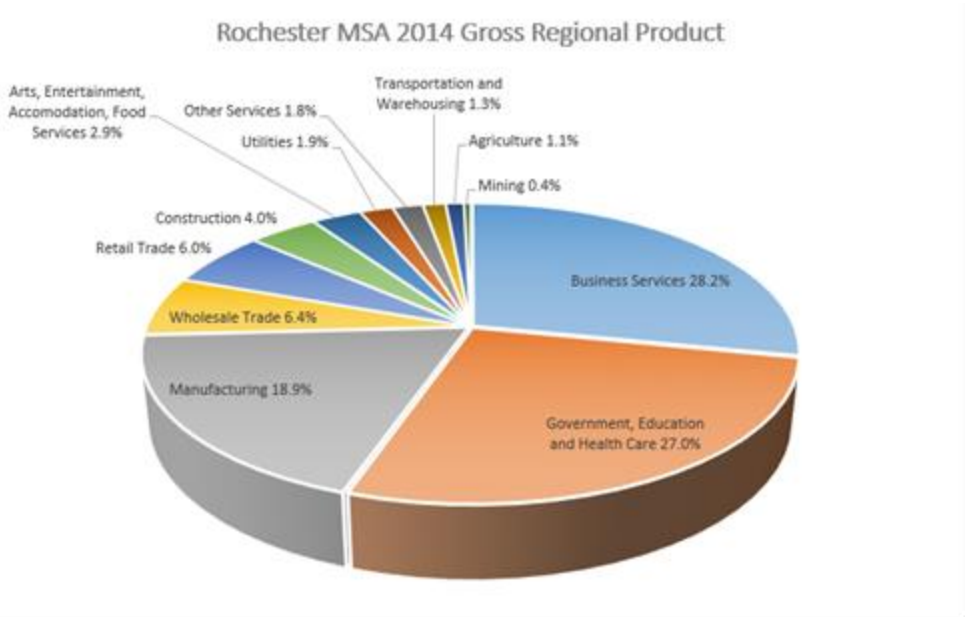
Transportation and Commute Times						
	Vacuum Oil BOA		SW Planning District		City of Rochester	
	Residents	Percent of Residents	Residents	Percent of Residents	Residents	Percent of Residents
Worker Transportation Method						
Drive Alone	284	53.0%	9,959	60.7%	59,289	70.2%
Carpool	108	20.1%	1,818	11.1%	8,803	10.4%
Public Transportation	89	16.6%	1,493	9.1%	6,814	8.1%
Walk	13	2.4%	2,190	13.4%	5,612	6.6%
Other	38	7.1%	468	2.9%	1,730	2.0%
Work at Home	4	0.7%	476	2.9%	2,208	2.6%
Totals	536	100%	16,404	100%	84,456	100%
Worker Travel Time, Minutes						
0 - 9	88	16.5%	2,675	16.8%	12,628	15.4%
10 - 19	214	40.2%	7,546	47.4%	37,092	45.1%
20 - 29	89	16.7%	3,146	19.7%	18,499	22.5%
30 - 39	80	15.0%	1,303	8.2%	7,257	8.8%
40 +	61	11.5%	1,260	7.9%	6,772	8.2%
Totals	532	100%	15,930	100%	82,248	100%
Commute of 20 min +	230	43.2%	5,709	35.8%	32,528	39.5%

"Other" includes taxicab, motorcycle, bicycle, and undetermined means.

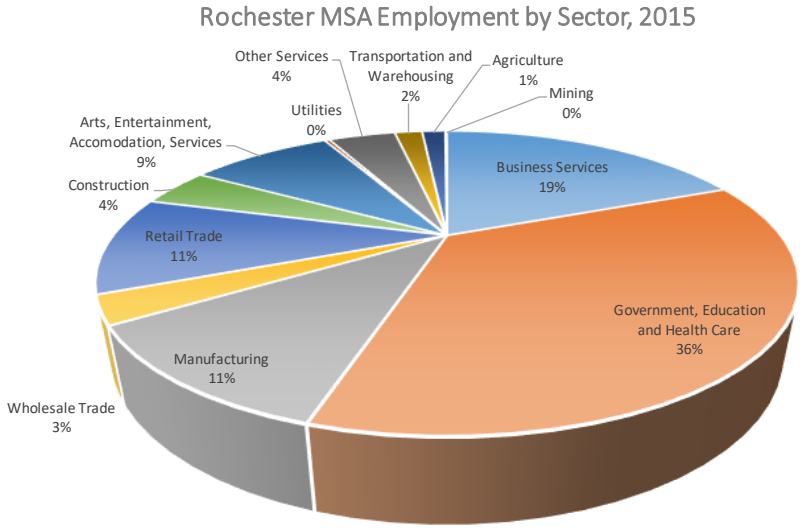
Source: ESRI

Economic Base

The Gross Regional Product (GRP) helps provide an understanding of Rochester's regional economy. As shown in the chart below, Business Services represent the largest portion of the MSA's GRP accounting for over 28% of the region's economy. Government, Education and Health Care follows closely (27%) with Manufacturing representing the third greatest economic sector (19%).



When examining the regional economy in terms of employment, the Government, Education and Health Care sector employs the greatest proportion of workers with 36% of jobs falling in this category. Business Services ranks second (19% of jobs) followed by Manufacturing and Retail at 11% each.



Employment Growth

Job growth in the City of Rochester and the greater region is expected to lag well behind that of the state and nation overall. The number of jobs is projected to increase by only 1.1% in the city from 2015 to 2021 while the region's 1.9% job growth is only moderately better compared to the state's projected growth of 5.5% and the nation's growth of 6.5%. Average annual earnings in the city and region are well below state and national averages.

Projected Employment Growth Summary				
Region	2015	2021	Change	% Change
City of Rochester	306,656	310,012	3,357	1.09%
Rochester MSA	537,776	547,766	9,990	1.86%
NYS	9,905,449	10,450,729	545,280	5.50%
US	155,992,069	166,098,861	10,106,792	6.48%

Source: EMSI

Employment Growth by Industry

The table below presents employment trends and growth projections. The Rochester region's Health Care and Social Assistance industry is expected to add the greatest number of jobs over the next five years with nearly 8,900 new positions created through 2021, an increase of 11%. Other growing sectors include Other Services; Professional, Scientific, and Technical Services; Accommodation and Food Services; and Educational Services. Manufacturing is projected to see a substantial loss of jobs, accelerating a recent trend of decline.

Rochester MSA Industry Employment and Trends 2011 - 2021							
NAICS	Description	2011 Jobs	2015 Jobs	2011 - 2015 Change	2011 - 2015 % Change	2015 - 2021 Change	2015 - 2021 % Change
62	Health Care and Social Assistance	78,002	80,613	2,611	3.3%	8,883	11.0%
90	Government	79,588	77,242	(2,346)	-2.9%	(980)	-1.3%
31	Manufacturing	62,161	59,517	(2,644)	-4.3%	(5,205)	-8.7%
44	Retail Trade	57,505	56,520	(985)	-1.7%	(702)	-1.2%
72	Accommodation and Food Services	35,902	38,266	2,364	6.6%	1,391	3.6%
61	Educational Services	31,789	34,356	2,567	8.1%	1,384	4.0%
54	Professional, Scientific, and Technical Services	25,971	29,166	3,195	12.3%	1,480	5.1%
56	Administrative and Support and Waste Management and Remediation Services	27,189	28,569	1,380	5.1%	344	1.2%
23	Construction	21,638	22,743	1,105	5.1%	724	3.2%
81	Other Services (except Public Administration)	21,254	22,333	1,079	5.1%	1,926	8.6%
42	Wholesale Trade	16,744	15,970	(774)	-4.6%	116	0.7%
52	Finance and Insurance	14,959	15,161	202	1.4%	378	2.5%
55	Management of Companies and Enterprises	11,989	11,850	(139)	-1.2%	580	4.9%
48	Transportation and Warehousing	9,258	9,220	(38)	-0.4%	702	7.6%
51	Information	9,283	9,149	(134)	-1.4%	(918)	-10.0%
71	Arts, Entertainment, and Recreation	8,267	8,344	77	0.9%	(133)	-1.6%
11	Crop and Animal Production	7,508	7,791	283	3.8%	152	2.0%
53	Real Estate and Rental and Leasing	7,492	7,701	209	2.8%	(392)	-5.1%
22	Utilities	1,506	1,667	161	10.7%	184	11.0%
99	Unclassified Industry	581	981	400	68.8%	56	5.7%
21	Mining, Quarrying, and Oil and Gas Extraction	524	618	94	17.9%	17	2.8%
Totals		529,111	537,776	8,667		9,987	

Source: EMSI

The city itself is projected to experience trends similar to the region's, as seen in the table below. Its largest industry, Health Care and Social Assistance, is expected to grow 11% over 5 years while Manufacturing is projected to undergo a substantial contraction. Other notable industry trends include a 4% growth in Educational Services employment (1,238 new jobs) and growth in "Other Services" with 1,000 new jobs representing a 5-year growth rate of 8.1%.

The Rochester MSA is projected to add 9,987 jobs by 2021, including 3,357 within the City of Rochester. The MSA has 1,088,881 residents and the city's 210,312 residents comprise approximately 19% of that. Of the 9,987 projected jobs, 33.6% are expected to be located within the city. Even if 70% of jobs in the city continue to be filled by suburban residents, more than 1,000 new jobs (30% x 3,357) would be filled by city residents according to current employment patterns.

City of Rochester Industry Employment and Trends 2011 - 2021

NAICS	Description	2011 Jobs	2015 Jobs	2011 - 2015 Change	2011 - 2015 % Change	2015 - 2021 Change	2015 - 2021 % Change
62	Health Care and Social Assistance	52,151	54,140	1,989	3.8%	5,983	11.1%
31	Manufacturing	36,308	34,414	(1,894)	-5.2%	(4,266)	-12.4%
90	Government	34,820	34,261	(559)	-1.6%	(656)	-1.9%
61	Educational Services	28,311	30,360	2,049	7.2%	1,238	4.1%
44	Retail Trade	28,816	28,310	(506)	-1.8%	(920)	-3.2%
72	Accommodation and Food Services	18,723	19,653	930	5.0%	453	2.3%
54	Professional, Scientific, and Technical Services	15,814	18,218	2,404	15.2%	648	3.6%
56	Administrative and Support and Waste Management and Remediation Services	16,055	16,504	449	2.8%	(56)	-0.3%
81	Other Services (except Public Administration)	12,221	12,554	333	2.7%	1,018	8.1%
42	Wholesale Trade	10,604	10,002	(602)	-5.7%	51	0.5%
23	Construction	9,362	9,875	513	5.5%	331	3.4%
52	Finance and Insurance	9,104	9,056	(48)	-0.5%	98	1.1%
55	Management of Companies and Enterprises	7,489	7,079	(410)	-5.5%	135	1.9%
51	Information	6,145	5,921	(224)	-3.6%	(859)	-14.5%
48	Transportation and Warehousing	5,263	5,180	(83)	-1.6%	334	6.4%
53	Real Estate and Rental and Leasing	4,719	4,901	182	3.9%	(258)	-5.3%
71	Arts, Entertainment, and Recreation	4,023	4,118	95	2.4%	(17)	-0.4%
22	Utilities	697	841	144	20.7%	48	5.7%
11	Crop and Animal Production	652	714	62	9.5%	21	2.9%
99	Unclassified Industry	286	533	247	86.4%	40	7.5%
21	Mining, Quarrying, and Oil and Gas Extraction	29	22	(7)	-24.1%	(9)	-40.9%
Totals		301,592	306,656	5,064		3,357	

Source: EMSI

Unemployment by Industry and Occupation

The following table shows the industries that are experiencing the highest and lowest unemployment rates in the region. As expected, those with no previous work experience have the highest unemployment rates. Retail Trade, Manufacturing, and Accommodation and Food Services represent the greatest percentage of regional unemployment. Low unemployment rates are seen in natural resource related industries and Utilities, although these industries do not employ as many workers compared to other sectors. Notably, there is relative strength in Transportation and Warehousing; Information; and Wholesale Trade.

Rochester MSA Unemployment by Industry				
NAICS	Industry	Unemployed (5/2016)	% of Regional Unemployment	% of National Unemployment
99	No Previous Work Experience/Unspecified	3,211	13.2%	15.4%
44	Retail Trade	2,840	11.6%	10.2%
31	Manufacturing	2,727	11.2%	10.6%
72	Accommodation and Food Services	2,397	9.8%	8.0%
23	Construction	2,175	8.9%	8.4%
56	Administrative and Support and Waste Management and Remediation Services	2,102	8.6%	8.0%
90	Government	1,991	8.2%	6.2%
62	Health Care and Social Assistance	1,387	5.7%	6.3%
54	Professional, Scientific, and Technical Services	942	3.9%	4.5%
81	Other Services (except Public Administration)	806	3.3%	3.7%
71	Arts, Entertainment, and Recreation	718	2.9%	1.8%
61	Educational Services	558	2.3%	1.5%
52	Finance and Insurance	557	2.3%	2.7%
42	Wholesale Trade	447	1.8%	2.1%
51	Information	419	1.7%	1.8%
48	Transportation and Warehousing	316	1.3%	3.3%
53	Real Estate and Rental and Leasing	312	1.3%	1.5%
21	Mining, Quarrying, and Oil and Gas Extraction	198	0.8%	1.9%
11	Crop and Animal Production	193	0.8%	1.7%
55	Management of Companies and Enterprises	82	0.3%	0.2%
22	Utilities	23	0.1%	0.3%
Totals		24,403	100.0%	100.0%

Source: EMSI

The following table shows a similar unemployment analysis broken down by occupation (job type) rather than industry. Office and Administrative Support workers represent the largest share of the region's unemployed at 14.5%. Construction and Extraction Occupations also represent a significant share, accounting for 10.5% of all unemployed in the region. Other notable weaknesses include a significant number of unemployed production workers (e.g., those that work in manufacturing) as well as maintenance-related jobs, sales jobs, and food service jobs.

Rochester MSA Unemployment by Occupation				
SOC	Occupation	Unemployed (5/2016)	% of Regional Unemployment	% of National Unemployment
43-0000	Office and Administrative Support Occupations	3,529	14.5%	14.2%
47-0000	Construction and Extraction Occupations	2,567	10.5%	9.9%
99-0000	No Previous Work Experience/Unspecified	2,405	9.9%	11.2%
51-0000	Production Occupations	1,974	8.1%	7.7%
37-0000	Building and Grounds Cleaning and Maintenance Occupations	1,826	7.5%	4.4%
41-0000	Sales and Related Occupations	1,799	7.4%	9.6%
35-0000	Food Preparation and Serving Related Occupations	1,763	7.2%	6.7%
11-0000	Management Occupations	1,696	6.9%	5.8%
53-0000	Transportation and Material Moving Occupations	1,448	5.9%	7.1%
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations	990	4.1%	1.7%
39-0000	Personal Care and Service Occupations	847	3.5%	2.9%
49-0000	Installation, Maintenance, and Repair Occupations	750	3.1%	3.1%
13-0000	Business and Financial Operations Occupations	442	1.8%	3.0%
25-0000	Education, Training, and Library Occupations	408	1.7%	1.8%
17-0000	Architecture and Engineering Occupations	378	1.5%	1.3%
33-0000	Protective Service Occupations	302	1.2%	0.9%
29-0000	Healthcare Practitioners and Technical Occupations	281	1.2%	1.5%
31-0000	Healthcare Support Occupations	250	1.0%	2.2%
21-0000	Community and Social Service Occupations	210	0.9%	0.9%
15-0000	Computer and Mathematical Occupations	188	0.8%	1.5%
45-0000	Farming, Fishing, and Forestry Occupations	139	0.6%	1.5%
23-0000	Legal Occupations	122	0.5%	0.5%
19-0000	Life, Physical, and Social Science Occupations	88	0.4%	0.6%
Totals		24,403	100.0%	100.0%

Source: EMSI

Employment Growth by Occupation, Monroe County Only

The last economic indicator is specific to residents of the BOA, who are less likely to commute to work by car and more likely to rely on public transportation, and therefore have a more limited range of possible employment locations. Job growth by occupation within Monroe County, which includes the city but not the farther suburbs, is used to illustrate the potential for new jobs available to residents of the BOA. The top 25 by number of new jobs are presented on the next page in the table "Occupations Projected to Grow by 2025, Monroe County."

A summary table to the left shows that the greatest job growth is expected in the occupations with the lowest educational requirements, with nearly 6,000 jobs requiring a high school diploma or no credential. These jobs generally have lower median hourly earnings, for example food preparation and serving workers workers ($9.26), or personal care aides ($11.19). Attaining a postsecondary nondegree award, indicating further training, opens up 1,860 projected jobs that can have higher median hourly earnings, such as nursing assistants ($13.26). Assuming a 35-hour workweek and 50 paid weeks per year, a nursing assistant's gross earnings could be $23,205, well above the BOA median income. Reverse-engineering the current BOA median income of $18,539 suggests hourly wages are closer to $10.00.

Job Growth by Educational Attainment: 2025 Projections		
Typical Entry Level Requirement	Number of Occupations	Number of New Jobs
No formal credential	7	4,076
H.S. diploma or equivalent	5	1,798
Postsecondary nondegree award	4	1,860
Some college	1	177
Associate's degree	1	185
Bachelor's degree	5	2,624
Master's degree	0	0
Doctoral or professional degree	2	1,113
Totals	25	11,833

Source: EMSI

Occupations Projected to Grow by 2025, Monroe County							
SOC	Description	2015 Jobs	2025 Jobs	2015 - 2025 Change	2015 - 2025 % Change	Median Hourly Earnings	Typical Entry Level Education
29-1141	Registered Nurses	8,987	10,654	1,667	19%	$30.04	Bachelor's degree
39-9021	Personal Care Aides	7,258	8,668	1,410	19%	$11.19	No formal credential
31-1011	Home Health Aides	4,050	4,997	947	23%	$11.37	No formal credential
43-4051	Customer Service Representatives	10,029	10,974	945	9%	$15.11	H.S. diploma or equivalent
31-1014	Nursing Assistants	4,851	5,784	933	19%	$13.26	Postsecondary nondegree award
25-1099	Postsecondary Teachers	8,027	8,959	932	12%	$44.40	Doctoral or professional degree
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	7,346	8,111	765	10%	$9.26	No formal credential
39-5012	Hairdressers, Hairstylists, and Cosmetologists	1,962	2,426	464	24%	$11.00	Postsecondary nondegree award
35-3011	Bartenders	1,846	2,139	293	16%	$9.56	No formal credential
29-2061	Licensed Practical and Licensed Vocational Nurses	2,820	3,110	290	10%	$19.47	Postsecondary nondegree award
25-3021	Self-Enrichment Education Teachers	1,695	1,974	279	16%	$19.31	H.S. diploma or equivalent
15-1121	Computer Systems Analysts	2,036	2,305	269	13%	$34.93	Bachelor's degree
35-2014	Cooks, Restaurant	2,164	2,432	268	12%	$11.42	No formal credential
13-2011	Accountants and Auditors	4,435	4,701	266	6%	$31.29	Bachelor's degree
15-1132	Software Developers, Applications	2,136	2,370	234	11%	$38.60	Bachelor's degree
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	2,235	2,445	210	9%	$13.96	H.S. diploma or equivalent
35-3031	Waiters and Waitresses	6,458	6,663	205	3%	$10.04	No formal credential
53-3022	Bus Drivers, School or Special Client	2,755	2,947	192	7%	$16.88	H.S. diploma or equivalent
13-1161	Market Research Analysts and Marketing Specialists	1,843	2,031	188	10%	$30.69	Bachelor's degree
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	7,784	7,972	188	2%	$11.17	No formal credential
25-2011	Preschool Teachers, Except Special Education	1,273	1,458	185	15%	$13.46	Associate's degree
29-1123	Physical Therapists	805	986	181	22%	$38.06	Doctoral or professional degree
15-1151	Computer User Support Specialists	3,301	3,478	177	5%	$22.16	Some college
29-2041	Emergency Medical Technicians and Paramedics	765	938	173	23%	$14.72	Postsecondary nondegree award
43-1011	First-Line Supervisors of Office and Administrative Support Workers	4,703	4,875	172	4%	$26.72	H.S. diploma or equivalent
Totals				11,833			

Source: EMSI

Perspectives on Housing Affordability

This section discusses three perspectives on housing affordability. First, the federal threshold of 30% or more of income spent on housing to determine that a household is "cost burdened." Second, the concept of "shelter poverty" and third, a "regional cost-of-living analysis" that measures basic non-housing costs across different household compositions. Three perspectives are presented because none alone captures the challenges of households at the lower end of the income scale, which comprise the majority of BOA residents and many in the SW Planning District and the city. While the scope of this analysis does not include other methods of support for households in poverty, it is important to note that housing costs above zero may not be affordable for some households, and additional forms of support will remain critical even if housing costs are reduced to the standard 30% threshold.

Cost Burdened. Households that pay 30% or more of their income in rent are considered "cost burdened" by the federal Department of Housing and Urban Development (HUD.) By this measure, 64% of BOA residents, 70% of SW Planning District residents, and 63% of City of Rochester Residents are cost burdened.

Shelter Poverty. Another viewpoint on affordability is "shelter poverty" which describes the necessity to cut back on expenditures for other basic needs such as food, clothing, medical costs, and school fees, in order to pay for housing[8]. It argues that the 30% of income threshold overlooks the burden among the very poorest of the population, including families and households headed by a woman and/or a person of color, significant demographics for the BOA. The 30% of income measurement is linear: a household earning $30,000 and paying $9,000 for rent has $21,000 for other basic needs. A household earning $15,000 and paying 30% for rent[9] has half of that amount, or $10,500, but the cost of food, clothing, and medical care is not also reduced by one-half, particularly where children are present.

The table below illustrates the first two approaches, cost burdened and shelter poverty.

The first column presents Annual Gross Income (AGI), which is used for both approaches.

The Shelter Poverty concept sets aside $1,200 per month for non-housing basic needs, or $14,400 per year. The remainder is available for housing and is divided by 12 months, making the simplifying assumption that housing will absorb all of the non-basic need spending. In this approach, after paying for basic needs, households below $15,000 year, which includes almost 45% of BOA households, have nothing left for housing. Households earning $35,000 or more could meet the basic needs threshold and spend $1,717 per month, or nearly 60% of income, on housing.

The Cost Burdened approach takes the same Annual Gross Income and calculates monthly housing costs at 30% x AGI ÷ 12 months = Monthly Housing at 30% of Income. The column Available after Housing Costs, $/yr subtracts annual housing costs from AGI to calculate the income available to meet all other needs. The final column subtracts $14,400 annual basic needs to determine whether income after housing costs meets basic needs. A positive number, for example for a household with AGI of $35,000, indicates that both housing and basic needs are met. At an AGI of $20,000, however, the Cost Burdened approach leaves the household with insufficient income for basic needs.

Neither measurement adequately presents the affordability of housing, and at the lowest incomes the two approaches have sharply different ideas about how much a household can afford to pay for housing. Shelter Poverty

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[8] Stone, Michael E. (2004) "Shelter Poverty: The Chronic Crisis of Housing Affordability, *New England Journal of Public Policy*: Vol. 20: Iss.1, Article 16. Available at http://scholarworks.umb.edu/niepp/vol20/iss1/16

[9] This household likely has a housing subsidy or rent reduction and is not paying full market rent. 30% for a $15,000 income would be $375 per month, well below market rates in all three geographies.

indicates that at $15,000 no money is left for housing, while the Cost Burdened approach indicates that the same household could pay $375/month for housing, although that would leave $10,500 to meet all other living costs.

The Shelter Poverty concept is useful in understanding the higher burden of housing on the poorest households, including most of the BOA residents. The 30% of income threshold for the Cost Burdened approach can show households for which market rate housing, or market rate housing with some form of subsidy, becomes an option.

Comparison: Shelter Poverty and Cost Burdened						
	Shelter Poverty: Basic Needs Met First			Cost Burdened: Housing Costs at 30% of Income Met First		
Annual Gross Income	Less: $14,400 Basic Needs	Available for Housing Costs, $/yr	Available for Housing $/month	Monthly Housing at 30% of Income	Available after Housing Costs, $/yr	Less: $14,400 Basic Needs
$35,000	($14,400)	$20,600	$1,717	$875	$24,500	$10,100
$30,000	($14,400)	$15,600	$1,300	$750	$21,000	$6,600
$25,000	($14,400)	$10,600	$883	$625	$17,500	$3,100
$20,000	($14,400)	$5,600	$467	$500	$14,000	($400)
$15,000	($14,400)	$600	$50	$375	$10,500	($3,900)
$10,000	($14,400)	($4,400)	($367)	$250	$7,000	($7,400)

Source: Camoin Associates

Regional Cost of Living. Housing affordability can also be seen through an analysis of the regional cost of living. The Massachusetts Institute of Technology (MIT) publishes an online tool called the Living Wage Calculator which presents the costs of basic goods and services and estimates the wages required to purchase them. Information from the Living Wage Calculator was used to create the table below, "Rochester MSA Costs of Living." The table below presents the costs of food, child care, medical care, transportation, and other costs and sums them as "Expenses Before Housing," then adds housing costs per household composition, also from the MIT calculator.

Rochester MSA Costs of Living						
Annual Expenses	1 Adult	1 Adult 1 Child	*1 Adult 1 Child, Free Childcare*	1 Adult 2 Children	2 Adults (1 Working) 2 Children	2 Adults (1 Working) 3 Children
Food	$3,497	$5,146	*$5,146*	$7,725	$10,271	$12,514
Child Care	$0	$9,812	*Free*	$18,172	$0	$0
Medical	$2,131	$5,888	*$5,888*	$5,688	$5,657	$5,772
Transportation	$3,575	$7,055	*$7,055*	$7,994	$9,416	$9,505
Other	$2,146	$3,894	*$3,894*	$4,682	$5,290	$5,013
Expenses Before Housing	$11,349	$31,795	*$21,983*	$44,261	$30,634	$32,804
Housing	$7,012	$10,366	*$10,366*	$10,366	$10,366	$13,089
Expenses with Housing	$18,361	$42,161	*$32,349*	$54,627	$41,000	$45,893

Source: MIT Living Wage Calculator www.livingwage.mit.edu, Camoin Associates

According to this analysis, the BOA MHI would support a single adult. One adult, working, with one child, needs a substantially larger income of $42,161 if paid child care is needed, and even free childcare from a friend or relative pushes the annual expenses to $32,349, above the MHI for the SW Planning District and the city and approximately $14,000 above the BOA MHI. The MIT calculator does present cost of living for the entire Rochester MSA, and it may be that certain costs shown are higher elsewhere in the MSA than they would be in the City of Rochester or its least-wealthy neighborhoods. On the other hand, food costs may be higher if there is not a competitive grocery market to keep prices down, a situation common in urban neighborhoods, and so costs may be higher than in the suburbs.

This table sheds light on the higher housing costs for households with children, and the costs of childcare that allows a single parent to work. The table above illustrating the shelter rent concept used $14,400 per year for basic needs before housing, which would be adequate for a single adult. For a family with one child it is still less than what would be needed, whether free childcare were available or not.

Regional Cost of Living can be helpful in measuring the challenges facing BOA residents in particular, as they are more likely to have children yet less likely to own homes. These households have a greater need for space, which increases the cost for an adequate unit. At the same time, regular employment for a working parent, which assists housing security, actually increases the household's cost of living by creating demand for childcare. These households may need support that goes beyond reduced housing costs; affordable childcare within a reasonable proximity to the neighborhood may have a stabilizing effect by providing these households with an amenity they need.

The RKG Study thoroughly lists housing support programs, but does not discuss amenities intentionally located near housing development or redevelopment. Housing with amenities is more often presented for urban redevelopment mixed-use concepts, although amenities focus on restaurants, shopping, and green space. Senior living communities may market access to nearby medical care.

The City of Buffalo may be ahead of the curve with the newly approved Westminster Commons project, where the nonprofit Buffalo Federation of Neighborhood Centers proposes to build a senior housing community specifically for residents with "mental health or other challenges" and that includes a medical clinic, pharmacy, rehab services, community meeting space, commercial kitchen, and adult day and youth programs, proposed to be available "to the entire community."[10]

An example of integrating childcare with housing[11] is from Seidel Architects in California, which develops affordable housing communities, including The Farm in Soquel, Santa Cruz County, CA. The Farm, according to the architects, "includes seven (7) single family homes and a 39-unit multi-family development as well as an on-site day care center. The traditional gable roofs and porches were designed to create a small-town feel. The common area provides a community focus as well as public access to a "riparian preserve" that runs along one side of the site."[12]

Integrated housing and childcare appear to be more common in university housing, for example at University of California, Los Angeles[13] and Oregon State University[14]. The University of Rochester offers a referral service for its employees.

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[10] "Apartment project to transform Adams-Monroe area," *The Buffalo News*, 11/16/06, p. B3.
[11] A brief internet search was performed to look for combinations of affordable housing and childcare. Most results were universities integrating childcare with student or faculty housing as part of the community design.
[12] http://www.seidelarchitects.com/affordable-communities
[13] https://housing.ucla.edu/student-housing/graduate-students-and-students-with-families/students-with-families/child-care-at-university-village
[14] http://childcare.oregonstate.edu/student-family-housing

Housing Supply and Demand

Takeaway Findings

- The housing stock is aging – 50% of homes in the City of Rochester were built in 1939 or earlier; the Vacuum Oil BOA and SW Planning District nearly match the citywide median, with 50% built during or before 1940.
- A plurality of residences are single family homes that are either detached or attached – 59% of Vacuum Oil BOA and SW Planning District units, and 50% of units citywide.
- New housing units are most likely to be in large rental developments – 84% of 2015 permits compared with 42% in 2012 were for multifamily projects. Beginning in 2013 all were for projects of at least 5 units per structure.
- A majority of residents are renters in all three geographies but the Vacuum Oil BOA has an especially high rate: 70% in the Vacuum Oil BOA, 54% in the SW Planning District, and 57% citywide.
- Renting is expected to increase as a housing choice, compared with owning, across all geographies.
- The median value of an owner-occupied home in the City of Rochester is $80,762 but within the Vacuum Oil BOA approximately 40% of owner-occupied homes are valued at $50,000 or less.
- Low to no-growth projected for population and household formation indicates that housing demand will be driven by the need for replacement housing, especially with the ageing housing stock.
- Demand for affordability programs for both owners and renters is high and will continue to be high, as median income is not expected to grow:
    - Most households citywide, but especially in the Vacuum Oil BOA, qualify as Low Income or Very Low Income by HUD standards
    - 64% of BOA households currently pay more than 50% of their income in rent, exceeding the HUD standard of cost burdened households, which is paying 30% of income in rent.
- Home ownership affordability programs largely focus on acquisition, but some are designed to support residents' need to repair, for example roofing assistance. However, restrictions on reselling renovated homes, or above-market renovation standards, may be burdensome on households who need the ability to move for employment opportunities but cannot sell their home.
- Federal tax credits administered by the State of New York to promote building affordable housing tend to prioritize larger projects, often 100 or more units, making Vacuum Oil BOA neighborhoods less eligible because of both zoning requirements and the desire to retain the neighborhood character.
- Demand for student housing is not expected to increase – most University of Rochester students (76%) live on campus and enrollment is growing very slowly for undergraduates and steady to declining for graduate students.

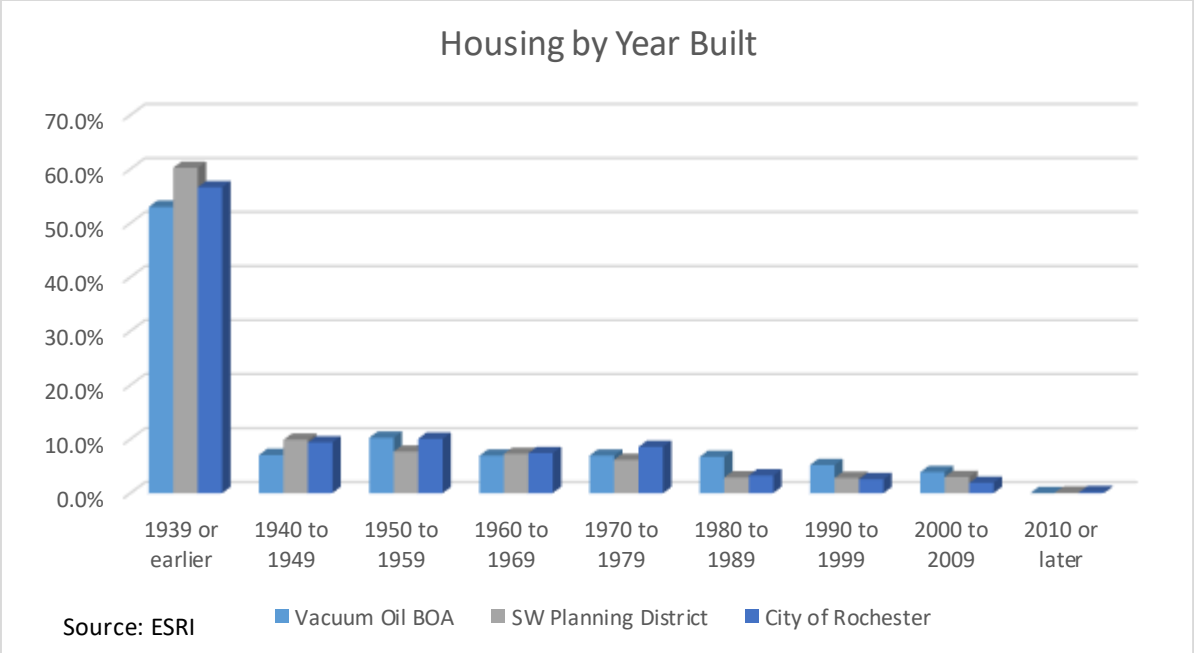
Supply of Housing

Age of Housing Supply

The age of an area's housing stock is an important indicator because it can provide a high-level estimate of the quality of the housing stock. Although well-maintained older homes can contribute to the preservation of an area's local history and community character, older houses also tend to be costlier to maintain and have more structural

and environmental concerns. As in many communities throughout the Northeast, substandard older housing is often occupied by those residents that are least able to afford the regular maintenance that an older home requires.

As shown in the chart at right, more than 50% of housing in the City of Rochester was built in 1939 or earlier, with fewer than 5% built since 2000. The BOA and the SW Planning District have a median year built of 1940. The table below provides details.



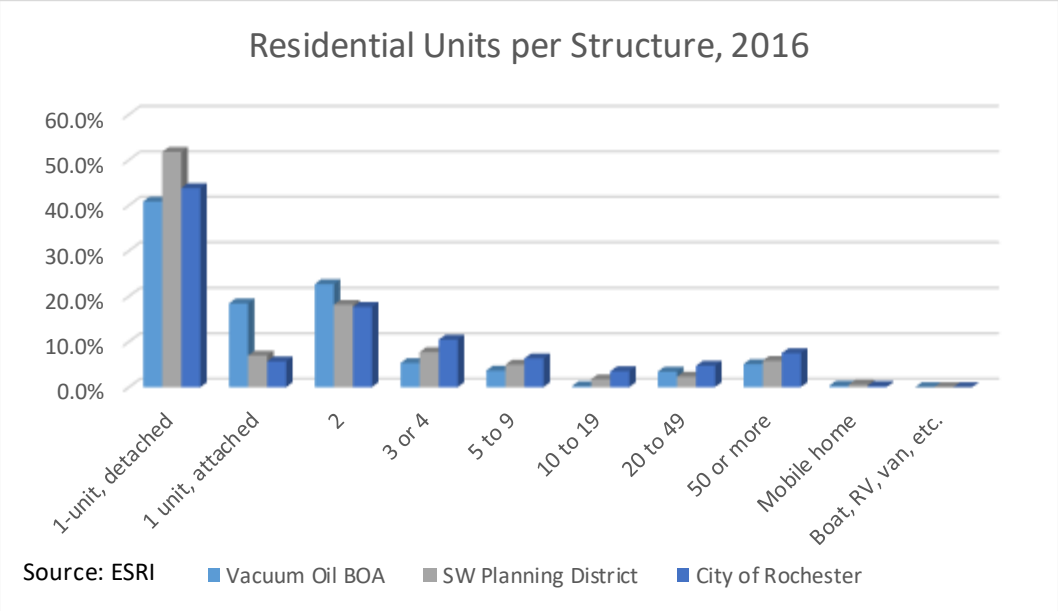
Source: ESRI

Housing Units by Year Structure Built						
	Vacuum Oil BOA		SW Planning District		City of Rochester	
Year Built	Number of Units	Percent of Total	Number of Units	Percent of Total	Number of Units	Percent of Total
1939 or earlier	450	53.0%	11,205	60.2%	55,671	56.6%
1940 to 1949	60	7.1%	1,839	9.9%	9,231	9.4%
1950 to 1959	87	10.2%	1,427	7.7%	9,897	10.1%
1960 to 1969	59	6.9%	1,351	7.3%	7,273	7.4%
1970 to 1979	59	6.9%	1,146	6.2%	8,405	8.6%
1980 to 1989	57	6.7%	539	2.9%	3,218	3.3%
1990 to 1999	44	5.2%	523	2.8%	2,532	2.6%
2000 to 2009	33	3.9%	555	3.0%	1,875	1.9%
2010 or later	-	0.0%	15	0.1%	190	0.2%
Total	849		18,600		98,292	
Units 56 or more years old (built by 1960)	597	70.3%	14,471	77.8%	74,799	76.1%
Median Year Structure Built	1940		1940		1939	

Source: ESRI

Units Per Structure

The most common form of residence in all three geographies is a single-family home, either detached or attached. Two-family residences are next most common, as illustrated in the chart below.



This pattern is not reflected in recent city building permits[15]. Since 2014, well over half of new residential building permits have been for units in multi-family structures. Single-family building permit requests peaked at 88 in 2012, dropped to 27 in 2013, and have been 70 and 65 in 2014 and 2015, respectively. Multi-family permits experienced a sharp jump, from 11 in 2013 to 153 in 2014 and 248 in 2015, all in structures of at least 5 units. It is likely that many of these permits are for the conversion of older buildings in the downtown area into live/work/play developments such as Tower280.

The drop in permits for single and two-family structures may present an opportunity for development in the BOA to focus on a housing type that may have unmet demand citywide.

Residential Building Permits, City of Rochester				
	2012	2013	2014	2015
Total Units	151	38	223	413
Units in Single-Family Structures	88	27	70	65
Units in All Multi-Family Structures	63	11	153	348
All Multi-Family Structures as % of Units	42%	29%	69%	84%
Units in 2-unit Multi-Family Structures	4	0	0	0
Units in 3- and 4- unit Multi-Family Structures	3	0	0	0
Units in 5+ Unit Multi-Family Structures	56	11	153	348

Source: U.S. Department of Housing and Urban Development

[15] HUD does not provide building permit breakdowns at the neighborhood level.

Owner/Renter Trends

The table below presents the ratio of renters to owners for the three geographies. In the BOA, where 69.9% of residents live in rental housing, renters outnumber owners (16.4% of residents) by 4.26 to 1. The SW Planning District and the city overall higher ownership rates of 30% or more, and lower ratios of under 1.88 renters to 1 owner. The trend in all neighborhoods is for rentals to increase as a proportion of housing.

Renter-Owner Ratio Trend						
	Vacuum Oil BOA		SW Planning District		City of Rochester	
	2016	2021	2016	2021	2016	2021
Pct. Renter-Occupied	69.9%	70.8%	54.2%	54.6%	57.1%	57.4%
Pct. Owner-Occupied	16.4%	16.1%	33.9%	32.9%	31.3%	30.6%
Ratio of Renters to Owners	4.26	4.40	1.60	1.66	1.82	1.88

Source: ESRI

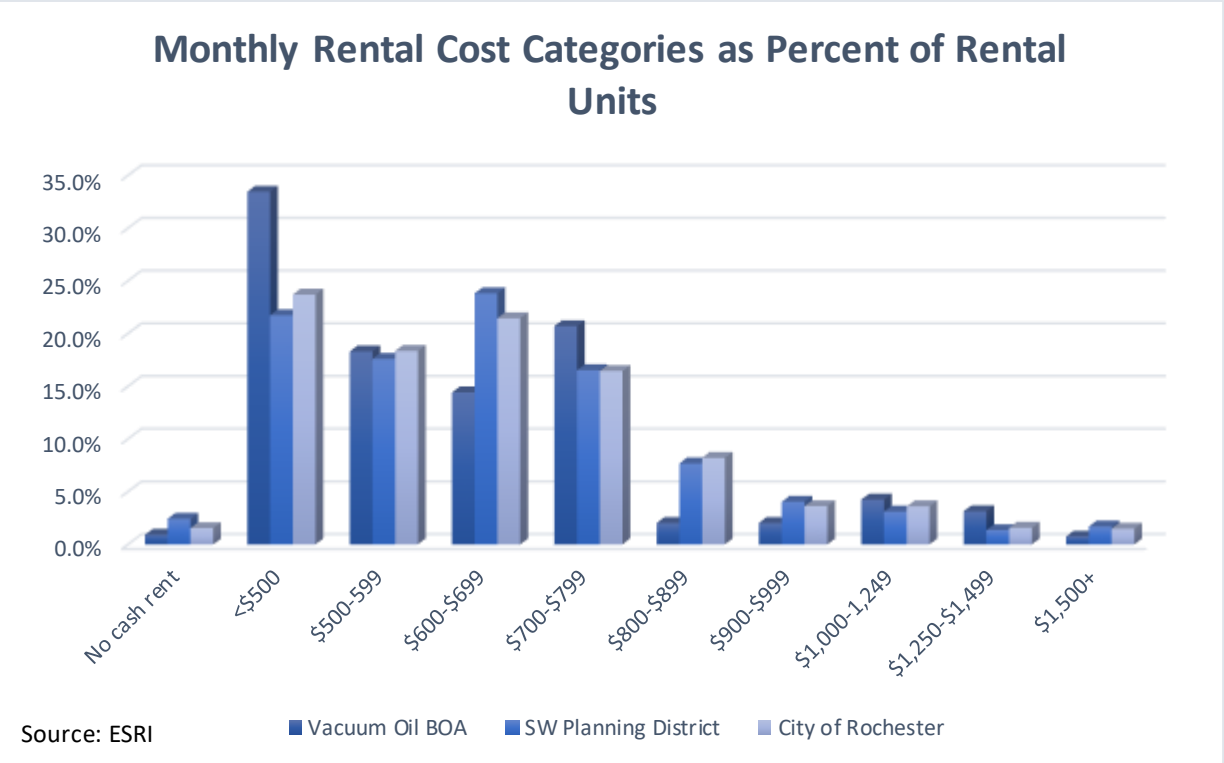
Supply of Rental Housing

The Multi-Family Snapshot presents CoStar real estate database information that is available for the City of Rochester. Rochester MSA rental rates per unit type are included to show that the two markets are similar from a renter's perspective. The table also includes statistics on construction of multi-family units, with only 150 new units delivered annually each year for the past five years (5-year average). The very low vacancy rate of 3.4% in both the city and the MSA suggest that monthly rental costs are experiencing upward pressure.

Mulit-Family Snapshot		
	City of Rochester	Rochester MSA
Leasing Units	5-Year Average	5-Year Average
Vacant Units	543	2,041
Vacancy Rate	3.4%	3.4%
12 Mo. Absorption Units	128	588
Rents	5-Year Average	5-Year Average
Studio Asking Rent	$ 533	$ 560
1 Bed Asking Rent	$ 673	$ 700
2 Bed Asking Rent	$ 895	$ 909
3+ Bed Asking Rent	$ 1,010	$ 1,078
Concessions	1.9%	1.8%
Inventory in Units	5-Year Average	5-Year Average
Existing Units	21,250	71,662
12 Mo. Construction Starts	311	824
Units Under Construction	260	886
12 Mo. Deliveries	150	597

Source: CoStar

Most rental units in the three geographies are contracted at less than $800 per month. In the BOA, nearly 35% of units rent below $500 per month. This is lower than the citywide average rent for a studio unit, and since it is unlikely given the BOA demographics that 3- and 4- person households are occupying studios, rents in this neighborhood are substantially lower than the city average, for similarly sized units. The chart below, "Monthly Rental Cost Categories as a Percent of Rental Units" shows this graphically; the category "<$500" comprises less than 25% of rentals for both the SW Planning District and the city overall. Generally, the higher the rent the lower the percentage of BOA units are offered at that rent, with the exception of the $700 - $700/month category, which is just over 20% of current units and may represent larger units.



Source: ESRI

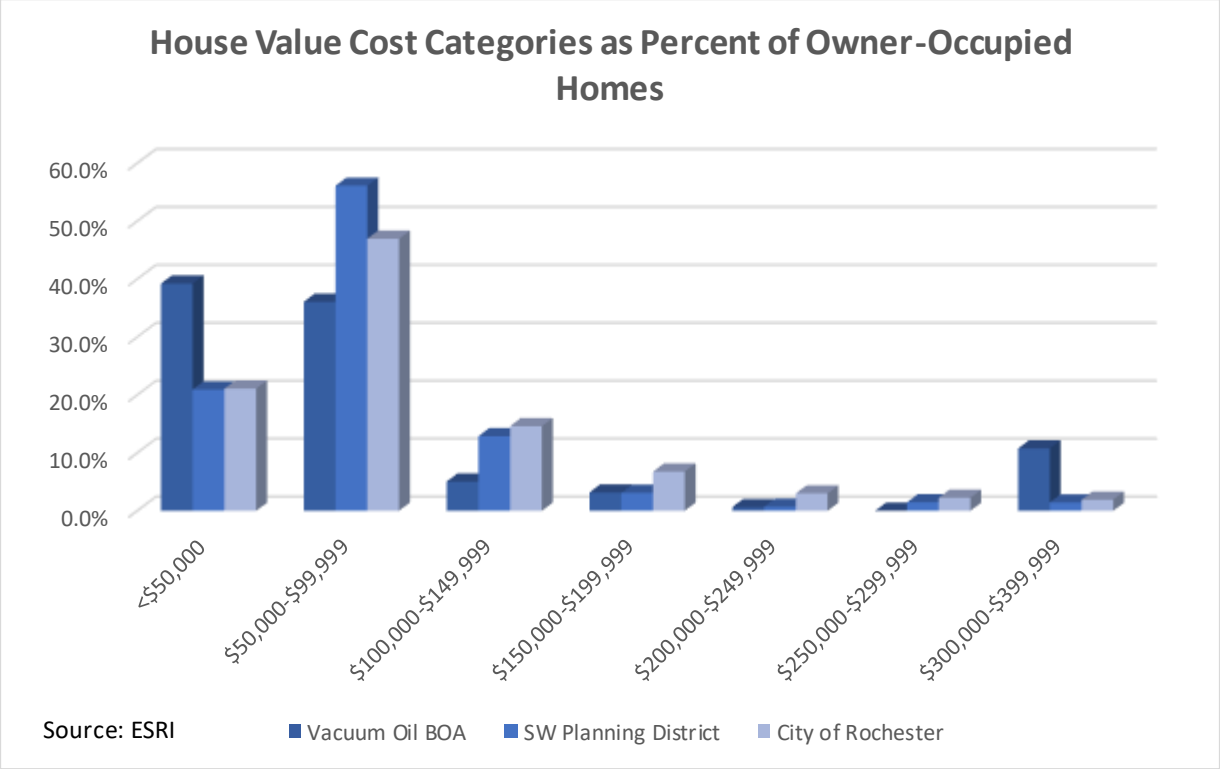
Further details of monthly rental costs are provided in the table below, which also indicates that in all geographies at least three-quarters of renters also pay for at least one utility in addition to their rent. Within the BOA there are only 541 rental units, 181 of which rent for less than $500 per month.

Renter-Occupied Housing Units by Contract Rent Cost, Monthly						
	Vacuum Oil BOA		SW Planning District		City of Rochester	
	# Units	% of Units	# Units	% of Units	# Units	% of Units
Montly Rent Payment						
No cash rent	5	0.9%	234	2.4%	823	1.5%
<$500	181	33.5%	2,096	21.7%	12,604	23.7%
$500-599	99	18.3%	1,698	17.6%	9,758	18.3%
$600-$699	78	14.4%	2,297	23.8%	11,407	21.4%
$700-$799	112	20.7%	1,594	16.5%	8,749	16.5%
$800-$899	11	2.0%	741	7.7%	4,367	8.2%
$900-$999	11	2.0%	391	4.1%	1,929	3.6%
$1,000-1,249	23	4.3%	301	3.1%	1,921	3.6%
$1,250-$1,499	17	3.1%	131	1.4%	838	1.6%
$1,500+	4	0.7%	163	1.7%	787	1.5%
Total	541	100%	9,646	100%	53,183	100%
Inclusion of Utilities in Rent						
Pay Extra for One or More	417	77.1%	7,838	81.3%	40,400	76.0%
No Extra Payment	123	22.7%	1,808	18.7%	12,783	24.0%

Source: ESRI

Supply of Owner-Occupied Housing

The median price for a home in the City of Rochester is $80,762[16]. Within the BOA, nearly 40% of the owner-occupied homes have a market value of $50,000 or less, whereas in the SW Planning District and the city, a majority and plurality of units, respectively, are in the $50,000 - $99,999 range. The clustering of housing prices toward the lower prices is seen in the chart below, with details in the table that follows.



[16] Source: ESRI, 2016

Owner Occupied Housing Units by Value, 2016						
	Vacuum Oil BOA		SW Planning District		City of Rochester	
Value Range	# Units	% of Units	# Units	% of Units	# Units	% of Units
<$50,000	62	39.2%	1,302	20.9%	6,549	21.1%
$50,000-$99,999	57	36.1%	3,492	56.1%	14,570	47.0%
$100,000-$149,999	8	5.1%	802	12.9%	4,530	14.6%
$150,000-$199,999	5	3.2%	194	3.1%	2,101	6.8%
$200,000-$249,999	1	0.6%	44	0.7%	932	3.0%
$250,000-$299,999	-	-	91	1.5%	694	2.2%
$300,000-$399,999	17	10.8%	90	1.4%	594	1.9%
$400,000-$499,999	1	0.6%	44	0.7%	351	1.1%
$500,000-$749,999	7	4.4%	102	1.6%	452	1.5%
$750,000-$999,999	-	-	30	0.5%	152	0.5%
$1,000,000+	-	-	31	0.5%	101	0.3%
Totals	158	100%	6,222	100%	31,026	100%

Source: ESRI

Demand for Housing

This section of the report begins with an overview of national regional demand factors, and then addresses the specific characteristics of the BOA, SW Planning District, and City of Rochester. It begins with housing demand so that available supply is analyzed in the context of where it is and isn't meeting the needs of the populations of the BOA and the other geographies, which have low median income and high poverty rates.

Demand for residential units arises from a number of different factors, including national economic and cultural trends, personal preferences, and local conditions.

Growth in the number of households locally is a natural driver of housing demand. Population growth can drive household formation, but age and economic status are also important. Population based demand is expected to be low in the BOA, the SW Planning District, and the city, stemming from very slow to no growth in either population or households. The table below, "Number of Households, 2010 – 2021" presents the trend from 2010 to 2016 and the projections for 2021. Only 9 additional households are expected to live in the BOA by 2021.

Number of Households, 2010 - 2021							
	2010	2016	2021	# Change 2010 - 2016	% Change 2010 - 2016	# Change 2016 - 2021	% Change 2016 - 2021
Vacuum Oil BOA	822	832	841	10	1.2%	9	1.1%
SW Planning District	16,145	16,166	16,217	21	0.1%	51	0.3%
City of Rochester	87,027	87,637	88,211	610	0.7%	574	0.7%
Rochester MSA	430,071	438,179	443,454	8,108	1.9%	5,275	1.2%

Source: ESRI

Replacement Housing Need describes local demand created by the functional obsolescence of existing housing choices because of the age of the buildings, shifting preferences for neighborhoods or residence type, or changing economic status. Improving economic status is often associated with replacement housing, meaning market rate housing. However, declining economic status also creates demand -- for subsidized and affordable housing – and

aging residents across income levels may require housing units more adaptable for aging in place. An important driver of housing demand for all three geographies will likely be the age of the housing stock. In the City of Rochester, 50% of the homes, including single- and multi-family, were built during or before 1939. The BOA and SW Planning District neighborhoods have a median year built of 1940; in all geographies half of the housing is 77 or more years old.

Functional obsolescence in housing, as noted above, depends on a variety of factors, but in the BOA the relative poverty of the neighborhood, coupled with the age of the housing stock, the rate of functional obsolescence is likely to be high. Repairing and maintaining an older home requires the ability to pay for materials and also labor, absent the owner's ability to perform the work, and in economically distressed areas this further contributes to functional obsolescence – the same home is both more attractive if in a wealthier neighborhood, and more likely to attract an owner with the means to repair and maintain the residence. This is therefore expected to a major driver of demand for housing in all geographies studied but particularly in the BOA.

Age and Demand. In the city and region's slowly growing population, age distribution is also expected to be stable through 2021, with median age increasing slightly as existing residents age, family size shrinks, and younger adults move out of the city when they enter the 35 – 44 years age cohort. As noted above in the charts and discussion for "2016 Population by Age, Comparison of Geographies," and "2021 Population by Age, Comparison of Geographies," the SW Planning District and, even more so, the BOA have relatively larger populations of families and seniors than the city overall, and this trend is not expected to change. Housing for families will be in higher demand in these areas, as will residences that can accommodate aging adults.

Rental Unit Demand describes preferences for rental vs. owner-occupied units, which can be driven by lifestyle choice or economic necessity. Locally, the trend in both the city and the Rochester MSA is a stable mix of rental and owner-occupied, with a very slight (1%) increase in rentals in the MSA. Factors that drive demand for rentals over ownership nationally include:

- **Economic pressure from student loans**. This issue currently generates many headlines, for example that there is an average loan burden of $32,200 per student in New York State[17]. This generates concern that college graduates will have less ability to take on mortgage debt than in previous generations. However, highest degree obtained and area of study are important factors that can offset the debt burden by increasing earnings. The National Association of Realtors reported that student debt is making home purchases more difficult, while the Brookings Institution found that home ownership is not impaired[18]. Perception of affordability can be as important as actual ability to repay a loan, and actual affordability is highly regional.
- **Relocation expectations.** Rentals provide greater flexibility for workers expecting or wanting to change jobs more frequently than past generations.
- **Tighter lending requirements for market rate loans.** More cash equity and loan amounts based on appraised vs. market value required since the financial crisis that began in 2008 have reduced both the pool of eligible borrowers and maximum loan amounts. In addition, the current historically low interest rates that serve as benchmarks for interest rates for conforming mortgages make lending less profitable for banks and can slow the growth of mortgage originations, despite consumer demand for these lower cost loans.
- **Personal preference.** As with student loans, there are currently many articles and viewpoints about a national cultural shift toward moving back into urban environments. Young professionals and post-child-rearing couples are demographic groups considered most likely to follow this trend and seek city living for

[17] "Student Loan Debt in NY Doubles in Last Decade," *Wall Street Journal,* 9/20/16.
[18] "More Than 1 in 3 Young Adults Worried about Debt," *Wall Street Journal*, 7/21/16.

vibrancy, amenities, and culture. Denser urban living is more likely to be rentals and this trend will naturally increase demand for rental units within neighborhoods and cities that have the desired lifestyle features.

Affordability of Housing

Affordability of All Housing Types

The table below, "Households and Demand by Monthly Cost, 5-Year Projection" presents expected demand for housing units by monthly cost, whether rent payments or net costs of ownership. Cost is calculated based on an income at the middle of the range for each category.

By 2021, the greatest number of new housing units expected to be needed is for households in the $25,000 - $34,999 income range; 68 new in the BOA, 885 in the SW Planning District, and 4,265 citywide. At a 30% of income threshold this indicates housing costs at $750/month. These households will be just above the projected median incomes for each geography. Since the median income is projected to *decrease* in the SW Planning District and the city overall, this demand will likely be from households with diminished income, such as retirees, and from the obsolescence of the housing stock, which would make currently occupied units undesirable or unsafe.

Many new units for very low income households are also expected to be needed, particularly in the SW Planning District (214 units) and the city (1,117 units.)

The table shows an expectation of increases in demand for new housing units that are greater than the increases in households for each geography. Citywide, 574 new households are expected to form, but 7,081 new housing units are expected to be required. In the BOA, where 10 new households are expected, 81 units are anticipated to be needed.

Households and Demand by Monthly Cost, 5-Year Projection

	Housing Cost	Vacuum Oil BOA		SW Planning District		City of Rochester	
Households by Income	Cost of Housing at 30% of Income*	2016 Households	New Units Needed by 2021	2016 Households	New Units Needed by 2021	2016 Households	New Units Needed by 2021
<$15,000	$375	359	7	4,452	214	23,397	1,117
$15,000 - $24,999	$500	127	-	2,499	-	12,763	-
$25,000 - $34,999	$750	96	68	2,322	885	11,480	4,265
$35,000 - $49,999	$1,062	134	-	2,451	-	12,361	-
$50,000 - $74,999	$1,562	80	-	2,349	-	12,686	-
$75,000 - $99,999	$2,187	29	5	1,086	165	6,785	862
$100,000 - $149,999	$3,125	4	1	690	-	5,189	373
$150,000 - $199,999	$4,375	1	-	173	41	1,629	340
$200,000+	$0	3	-	143	2	1,347	124
Totals		Growth	% of Existing	Growth	% of Existing	Growth	% of Existing
Housing Units		81	9.7%	1,307	8.1%	7,081	8.1%
Households		10	1.1%	21	0.3%	574	0.7%

Source: ESRI

* Uses income in the middle of the range. $15,000 is used for first, $200,000 for last brackets.

Looking back at the table, "Residential Building Permits, City of Rochester," on page 30, from 2012 – 2015, building permits for only 568 residential units (average 142 per year) were requested, fewer than 10% of the projected demand for all types of housing. With low growth in population and household formation, this is likely driven by the age of the housing stock. Renovation rather than new built housing may meet much of the demand. The average of

142 new units per year from 2012 – 2015 would deliver 5 x 142 = 710 new residences. New built residences would meet just over 10% of expected demand, leaving 90%, or 6,371 units, to be renovated back into usefulness.

Rental Affordability and Rental Assistance

This section of the report discusses the cost of monthly rent as a percent of household income and concludes that a substantial portion of households in all three geographies, but especially the BOA, meet HUD thresholds for rental assistance programs. HUD thresholds are used not only for federal programs such as Section 8, but also by programs developed by the City of Rochester and local organizations.

Takeaway Findings:

- BOA residents are significantly poorer than residents of other neighborhoods and more likely to meet HUD income thresholds for rental assistance, including assistance for very low income households;
- SW Planning District residents are even more likely to be cost-burdened than BOA residents, although they have an MHI of $29,099, more than $10,000 higher than the BOA MHI of $18,539. Rental costs are higher in the SW Planning District and the city than in the BOA, but the higher MHI does not compensate for the higher housing costs;
- BOA residents may experience very limited choices for moving out of the neighborhood because of the higher costs. This underscores the point the RKG Study makes about limiting displacement of existing BOA residents when developing plans to attract new households.

To illustrate the need, data are presented first, then discussion.

Currently, a plurality of renters of all geographies are paying at least 50% of income in rent, as shown in the table below, "2014 Gross Rent as a % of Income, Prior 12 Months." The federal definition of cost-burdened households is those paying more than *30%* of income for housing. More than 63% of renters citywide, including 70% of SW Planning District Residents, pay at least 30% of income in rent.

2014 Gross Rent as a % of Income, Prior 12 Months						
	Vacuum Oil BOA		SW Planning District		City of Rochester	
Cost of Rent	Households	Percent of Households	Households	Percent of Households	Households	Percent of Households
<10% of Income	14	2.6%	134	1.4%	1,258	2.4%
10 - 14.9% of Income	26	4.8%	515	5.3%	3,424	6.4%
15 - 19.9% of Income	50	9.3%	743	7.7%	4,080	7.7%
20 - 24.9% of Income	40	7.4%	682	7.1%	4,922	9.3%
25 - 29.9% of Income	55	10.2%	655	6.8%	5,167	9.7%
30 - 34.9% of Income	30	5.6%	633	6.6%	4,425	8.3%
35 - 39.9% of Income	36	6.7%	661	6.9%	3,650	6.9%
40 - 49.9% of Income	49	9.1%	984	10.2%	4,821	9.1%
50 + % of Income	212	39.3%	4,080	42.3%	19,116	35.9%
Gross Rent % Not Computed	*27*	*5.0%*	*561*	*5.8%*	*2,320*	*4.4%*
Total Households with Rent	539		9,648		53,183	
Households Paying >30% of Income*	327	64%	6,358	70%	32,012	63%

Source: ESRI

*Households for w hom rent is not computed are excluded from this statistic.

The concept of cost burdened households is one threshold for eligibility for a variety of housing cost assistance programs, including rental assistance. Not all households who pay 30% or more of income on housing are eligible for assistance. For example, a single professional earning $50,000 per year may $1,250 per month or more (30% of income) in rent to live in one of the new live/work/play projects downtown. This household would show in the table as cost burdened, but would not meet HUD income threshold tests for rental assistance. The table below presents the Rochester Metro area household income limits published by HUD[19] and effective as of June, 2016. Household income thresholds rise as household size increases.

Rochester, NY HUD Metro FMR Area Household Income Thresholds, Effective June 2016								
Program	1 Person	2 Person	3 Person	4 Person	5 Person	6 Person	7 Person	8 Person
30% Income	$14,350	$16,400	$18,450	$20,500	$22,150	$23,800	$25,450	$27,100
Very Low Income	$23,950	$27,400	$30,800	$34,200	$36,950	$39,700	$42,450	$45,150
60% Limits	$28,740	$32,880	$36,960	$41,040	$44,340	$47,640	$50,940	$54,180
Low Income	$38,300	$43,800	$49,250	$54,700	$59,100	$63,500	$67,850	$72,250

Source: US Dept. of Housing and Urban Development

This analysis does not include a breakdown of income by household size, but average household size and median household income indicate that a substantial number of households meet the HUD income thresholds.

Average household size for the BOA, the SW Planning District, and the City of Rochester is approximately 2 persons. With median household incomes for 2016 between $18,539 (BOA) and $30,990 (city), at least 50% of households in all geographies are likely to meet $43,800 HUD threshold for Low Income, assuming 2 or more persons per household.

Within the BOA, where the income is lowest, 486 households, or 58.3%, earn $24,999 or less, compared with the $23,950 HUD threshold for very low income *for a 1-person household*.

Rental assistance most often comes in two forms; units that are offered at below-market rents and limited to households below identified income levels, and households that because of income receive rent support assistance intended to enable them to occupy market-rate units. Tax credits support builders and owners of dedicated below-market units in order to create an incentive for these to be built and remain available, particularly if the local housing market produces higher returns for developing market rate housing.

The deep poverty experienced by many households in the BOA may suggest that housing projects supported by tax credits and severely rent limited should be a high priority. However, tax credit programs are administered through the state, and New York has often favored projects with a larger number of units than would fit within the BOA's neighborhood character. As a recent example, NYS Housing Finance Agency on 12/27/16 received approval from the Public Authorities Control Board to issue multiple series of tax-exempt affordable housing and mixed income housing bonds[20] for projects throughout the state. The smallest project is for 59 units in Cayuga County. A project on behalf of Depaul Upper Falls Square Apartments in the City of Rochester will offer 150 units in two buildings. This pattern of focusing on large projects for direct-to-developer subsidies suggests that at least within the BOA, vouchers and support of the residents, allowing them to choose neighborhood housing, may be more effective.

To develop an approximate cost for such support, an analysis was performed that projected the number of households likely to need a subsidy to rent an average-cost two-bedroom apartment by 2021. Currently the citywide average is $895 per month, so a 20% increase is projected by 2021, or $1,074. For each geography, a table was created. Households are listed by the middle of their income range (2021 chart on page 15 and Appendix B).

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[19] https://www.hudexchange.info/programs/home/home-income-limits/

[2020] https://www.budget.ny.gov/agencyGuide/pacb/122716/Agenda_12-22-16_for_12-27-16.pdf

Assuming a slight decrease in rental rates as a result of efforts to increase home ownership, 65% of BOA households would rent and 50% of SW Planning and 52% of city households. The column "Monthly Rent at 30% of Income" calculates the maximum rent households could pay before becoming cost burdened. "Gap to Afford an Average 2-BR at $1,074/month" calculates the difference between affordable rent at 30% of income, and market rate rent for a 2-bedroom unit. Households for whom $1,074 rent is less than 30% of income are not included as they are less likely to qualify for a subsidy.

At the bottom of that column, "Total Gap Subsidy" multiplies the number of households needing a subsidy by the amount of that subsidy for each affected income group, then sums the aggregate subsidy. This produces an approximation of the cost of a subsidy program; $2,813,594 per year in the BOA to assist 476 households, $33,191,153 for the SW Planning District (which includes the BOA) and $178,676,380 citywide, including the BOA and the SW Planning District. There are limits to this analysis and multiple assumptions, but it may provide a framework to consider whether direct subsidies to households or grants and tax abatements for new buildings, or a combination, support households effectively.

Vacuum Oil BOA - Monthly Rent Demand Projected by Gross Income					
Income, Middle of Range	Growth, 2016 - 2021	Number of Households, 2021	Number of Households, 65% Renting	Monthly Rent at 30% of Income	Gap to Afford an Average 2-BR at $1,074/month
$15,000	7	366	238	$375	$699
$20,000	(19)	108	70	$500	$574
$30,000	68	164	107	$750	$324
$42,500	(40)	94	61	$1,062	$12
$62,500	(13)	67	44	$1,562	N/A
$87,500	5	34	22	$2,187	N/A
$125,000	1	5	3	$3,125	N/A
$175,000	0	1	1	$4,375	N/A
$200,000	0	3	2	$5,000	N/A
Households Expected to Rent in Cost Category					*Total Annual Gap Subsidy*
Below $750/mo	56	638	415	76%	$2,893,514
Above $750/mo	(47)	204	133	24%	

Source: ESRI, Camoin Associates

SW Planning District - Monthly Rent Demand Projected by Gross Income					
Income, Middle of Range	Growth, 2016 - 2021	Number of Households, 2021	Number of Households, 50% Renting	Monthly Rent at 30% of Income	Gap to Afford an Average 2-BR at $1,074/month
$15,000	214	4,666	2,333	$375	$699
$20,000	(354)	2,145	1,073	$500	$574
$30,000	885	3,207	1,604	$750	$324
$42,500	(684)	1,767	884	$1,062	$12
$62,500	(215)	2,134	1,067	$1,562	N/A
$87,500	165	1,251	626	$2,187	N/A
$125,000	(2)	688	344	$3,125	N/A
$175,000	41	214	107	$4,375	N/A
$200,000	2	145	73	$5,000	N/A
Households Expected to Rent in Cost Category					*Total Annual Gap Subsidy*
Below $750/mo	745	10,018	5,009	62%	$33,191,153
Above $750/mo	(693)	6,199	3,100	38%	

Source: ESRI, Camoin Associates

City of Rochester - Monthly Rent Demand Projected by Gross Income					
Income, Middle of Range	Growth, 2016 - 2021	Number of Households, 2021	Number of Households, 52% Renting	Monthly Rent at 30% of Income	Gap to Afford an Average 2-BR at $1,074/month
$15,000	1,117	24,514	12,747	$375	$699
$20,000	(1,618)	11,145	5,795	$500	$574
$30,000	4,265	15,745	8,187	$750	$324
$42,500	(3,630)	8,731	4,540	$1,062	$12
$62,500	(1,258)	11,428	5,943	$1,562	N/A
$87,500	862	7,647	3,976	$2,187	N/A
$125,000	373	5,562	2,892	$3,125	N/A
$175,000	340	1,969	1,024	$4,375	N/A
$200,000	124	1,471	765	$5,000	N/A
Households Expected to Rent in Cost Category					*Total Annual Gap Subsidy*
Below $750/mo	3,764	51,404	26,730	58%	$178,676,380
Above $750/mo	(3,189)	36,808	19,140	42%	

Source: ESRI, Camoin Associates

Ownership Affordability and Assistance

The following tables present scenarios for purchase of homes at $50,000 and $80,000. It is assumed that all of the homes are in livable condition, although with the age of the housing stock throughout the city it is reasonable to expect that some homes would require a significant investment for repair of basic structural issues.

Financing the appraisal gap, or the difference in value between the appraised and therefore mortgageable value of a home and the appraised value plus repair/renovation, is beyond the scope of this analysis, but it is an important issue for communities with older homes and residents whose incomes may not have supported regular repair and maintenance for several years preceding the sale. The City of Rochester has programs to assist homeowners with certain repairs.

Using the cost burden of 30% of income, a $50,000 home should be affordable for households with incomes as low as $20,000 per year. The table below uses a standard cost burden analysis and shows a household with gross income of $20,000 per year spending 28% of income.

However, applying the shelter poverty concept, $20,000 income less $5,663 in housing costs leaves $14,337 per year for all other household expenses. According to analysis above using the MIT Cost of Living calculator, a household with a single adult could cover basic expenses but households with any number of children could not. According to the cost of living table on page 26, one adult and one child incur expenses of $21,983 outside of housing, even with free childcare. The same household, earning $30,000, would pay the same $5,663, but have $24,337 after housing to spend on basic needs.

Affordability of a $50,000 Home, 95% Financed							
Annual Gross Income	Mortgage	City of Rochester Taxes	15% Repair and Maintenance	Home Insurance	Net Cost per Year	Net Cost per Month	% of Income
$35,000	$3,090	$1,610	$463	$500	$5,663	$472	16%
$30,000	$3,090	$1,610	$463	$500	$5,663	$472	19%
$25,000	$3,090	$1,610	$463	$500	$5,663	$472	23%
$20,000	$3,090	$1,610	$463	$500	$5,663	$472	28%
$15,000	$3,090	$1,610	$463	$500	$5,663	$472	38%
$10,000	$3,090	$1,610	$463	$500	$5,663	$472	57%

Source: Camoin Associates

This table specifically breaks out common components of housing costs, to include taxes, maintenance, and insurance as well as mortgage payments, because home ownership has expenses beyond the mortgage payment. Assistance with any of these would bring home ownership within reach of more households.

A similar analysis was performed for a home at $80,000. Using the 30% threshold, a household of $25,000 per year would find it affordable. However, $25,000 - $7,863 = $17,137 for basic living costs, still too low for a household with one or more children. Working backwards, a household with a single adult and two children requires $26,089 for basic expenses; add $7,863 and an income of $33,952 is needed, plus several thousand dollars more per year if child care must be paid for.

Affordability of a $80,000 Home, 80% Financed							
Annual Gross Income	Mortgage	City of Rochester Taxes	15% Repair and Maintenance	Home Insurance	Net Cost per Year	Net Cost per Month	% of Income
$35,000	$4,163	$2,575	$624	$500	$7,863	$655	22%
$30,000	$4,163	$2,575	$624	$500	$7,863	$655	26%
$25,000	$4,163	$2,575	$624	$500	$7,863	$655	31%
$20,000	$4,163	$2,575	$624	$500	$7,863	$655	39%
$15,000	$4,163	$2,575	$624	$500	$7,863	$655	52%
$10,000	$4,163	$2,575	$624	$500	$7,863	$655	79%

Source: Camoin Associates

Owner-Occupied Housing Affordability and Assistance by Geography

Projected demand for owner-occupied housing is analyzed using a Price to Income (PTI) multiplier, which divides the median price of recently-sold homes by the median household income. The median home value in the City of

Rochester is $80,762 and the median income is $30,990, for a multiplier of 2.6. This analysis uses a multiplier of 2.6; a household with a gross income of $30,000 is considered to be able to afford to own a house valued at 2.6 x $30,000, or $78,000.

Price to Income (PTI) multipliers vary regionally and across time. According to housing finance agency Freddie Mac the current national average is 4.0, down from a high of 4.8 in 2005, before the financial crisis and recession, and a low of 3.2 in 2011[21]. Metro areas such as San Francisco frequently have a relatively high PTI, whereas portions of Texas, where land is more readily available, have a lower PTI. According to Northeast Public Radio, in 2014 the City of Rochester had a PTI of approximately 1.1[22]. This is likely too low: PTI is highly sensitive to assumptions about income as well as housing prices and the NPR article does not provide its input measures for confirmation.

Given the sensitivity of the measure, the 2.6 PTI is used in this analysis because it is based on median income and median home price statistics about Rochester from the ESRI database, which has been used for other statistical information.

Banking and credit history is also critical to home ownership. Two of the ownership support programs discussed below require that participants qualify for mortgages. A key assumption is therefore that the applicant households, however low income, have bank accounts and some credit history, but this is not necessarily the case. According to the FDIC[23], 8% of New York state residents are "unbanked," meaning they have neither a checking or a savings account, and another 23.8% are "underbanked" and conduct at least some of their financial transactions outside of the mainstream banking system, for example at payday lenders. Households without convenient physical access to banks will have greater difficulty establishing the relationships and history to support participation in an ownership program, underlining the importance of banking as an amenity to be considered in redevelopment scenarios.

Each of the three geographies has been analyzed to determine the number of households likely to demand housing across different price points by 2021. The number and income group status of households are based on projections from the demographic analysis of this report. Income x 2.6 PTI multiplier = value of home. Since income has been reported in ranges, for example $25,000 - $34,999, the mid-point of each range was used to make the calculation. Exceptions are households earning $15,000 or lower, for which $15,000 was used, and households earning $200,000 or more, for which $200,000 was used.

Demand for each geography is presented in a pie chart, with tables following the discussion. The charts show home value[24], followed by the number of units likely demanded. The analysis assumes that home ownership will rise slightly based on local efforts to increase it. For example, citywide 30.6% of households are expected to be owner-occupied in 2021, but this analysis uses a higher demand statistic of 35%. Therefore, citywide, where there are 15,745 households with a gross income between $25,000 and $34,999 and a midpoint of $30,000, 5,511 households are projected to demand owner-occupied housing[25].

For each geography, a pie chart is presented, and a detailed table, followed by a brief discussion of available subsidy or support programs for owner-occupied homes.

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[21] "How to Worry about House Prices," Freddie Mac, May 31, 2016.
http://www.freddiemac.com/finance/report/20160531_how_to_worry_about_house_prices.html

[22] "How Much House You Can Buy, In 385 US Cities," June 24, 2014.
http://www.npr.org/sections/money/2014/06/24/323974597/how-much-house-you-can-buy-in-385-u-s-cities

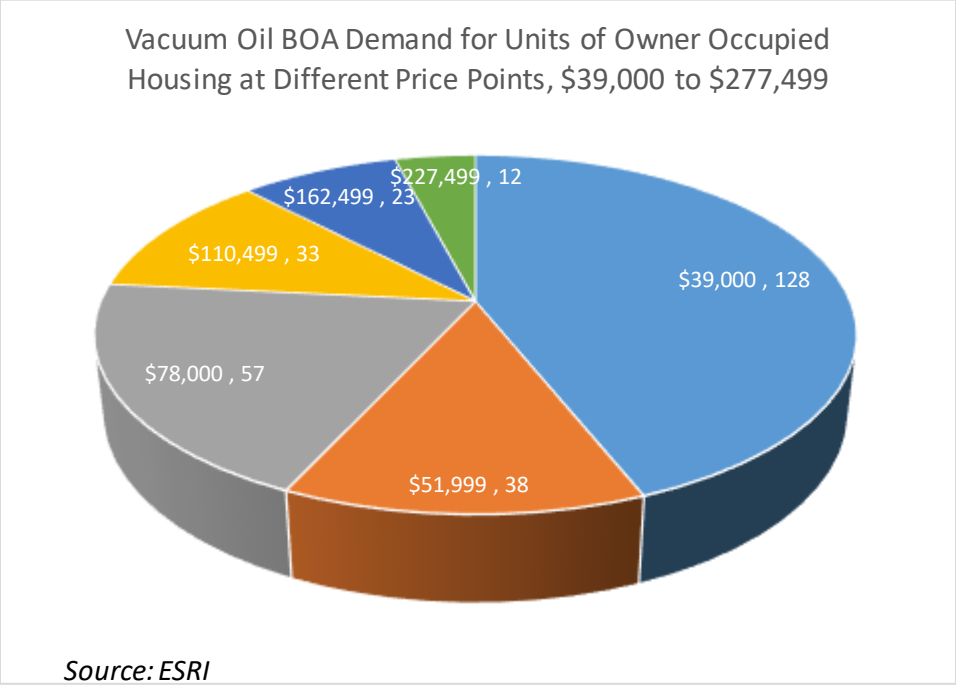
[23] https://www.economicinclusion.gov/. FDIC does not break down these statistics to show Rochester.

[24] Values up to $227, 499 are shown in the pie charts to ensure readability. All values are in the tables.

[25] This assumption is the same across all income groups for each geography and does not therefore take into account the likelihood that higher-earning groups may have a relatively higher demand for owner-occupied homes.

Vacuum Oil BOA

Within the BOA, the greatest demand for owner-occupied housing is for homes priced at approximately $39,000, or a projected 73 homes at this price point. Another 22 households are projected to demand homes at $51,999 and 33 households at $78,000. This distribution across price points, based on income, is shown in the pie chart below:



Source: ESRI

Further detail is shown in the table below, including the projected change in households across incomes and a summary of demand for homes valued both below $78,000 and above $78,000, an approximation for the citywide median home value of $80,762. Most BOA households, 76%, are not expected to demand housing at or above the city median, based on their gross income.

Vacuum Oil BOA - Home Value Demand Predicted by Gross Income				
Income, Middle of Range	Growth, 2016 - 2021	Number of Households, 2021	At 35% Owner Occupied	Home Value at 2.6 Multiplier
$15,000	7	366	128	$39,000
$20,000	(19)	108	38	$51,999
$30,000	68	164	57	$78,000
$42,500	(40)	94	33	$110,499
$62,500	(13)	67	23	$162,499
$87,500	5	34	12	$227,499
$125,000	1	5	2	$325,000
$175,000	0	1	0	$455,000
$200,000	0	3	1	$520,000
Households Expected to Own in Cost Category				
Below $78,000	56	638	223	76%
Above $78,000	(47)	204	71	24%

Source: ESRI, Camoin Associates

Subsidies for home ownership are usually income based, and HUD sets cost-burdened status for renters at 30% of income. In the section above, "Demand and Affordability," a household with $30,000 of income would be expected to be able to purchase a home costing $50,000 (with 95% financing) by dedicating 19% of income toward housing. That same household would dedicate 26% of income toward owning an $80,000 home (80% financing.) Neither household would be cost-burdened. However, there are programs in Rochester[26, 27] to assist homeowners at many income levels. These are covered in detail in the RKG Study and summarized here. Most of these programs are aimed at assisting households with the purchase of a market-rate home; the Neighborhood Builders program is unique in limiting homes to lower income households.

Nearly all of the residents of the Vacuum Oil BOA qualify for one or more home purchase programs offered by the City of Rochester.

- Home Purchase Assistance Program – eligible households earn up to 120% of HUD standards and the city assists homeowners with down payments. A household of 3 persons could earn up to $73,850 and have an income that qualified for this program. Other standards apply such as qualifying for a conventional FHA, VA, or SONYMA mortgage. Within the BOA, 799 households, or 95%, are expected to have incomes below $74,999 by 2021 and therefore have qualifying incomes.

  Two-family homes as well as single-family residences are eligible for this program.
- Employer Assisted Housing Initiative – the city matches employer funds used toward employee purchases of homes in the city, no income limits.
- HOME Rochester – eligible households receive assistance with the cost of rehabilitating a home to above-market value, provided they live in the home for at least 15 years. A household of 3 persons could earn up to $73,850 and have an income that qualified for this program. Other standards apply such as qualifying for a conventional FHA, VA, or SONYMA mortgage. Within the BOA, 799 households, or 95%, are expected to have incomes below $74,999 by 2021 and therefore have qualifying incomes. Note: the RKG study found that the above-market stipulation may make homes rehabilitated through this program difficult to resell in the BOA.
- Greater Rochester Housing Partnership –the Neighborhood Builders program provides a subsidy for construction and up to $6,000 in closing costs for homes newly constructed on vacant lots. Households earning up to 80% of Median Family Income, or $49,250 for a 3-person household, qualify. Approximately 732, or 87% BOA households are expected to have incomes at or below $49,999 by 2021 and would likely have incomes that qualify. Note: program participants may be limited to reselling these homes only to other qualified households.

SW Planning District

Like the Vacuum Oil BOA, demand for owner-occupied housing is strongest in the lower price points, with the largest demand for homes at the $39,000 price point, or 1,633 homes in 2021. The next greatest demand is for homes at $78,000, or 1,122 households. This is shown in the pie chart.

In the table that follows, the summary statistics show a higher proportion of SW Planning District residents could own a home valued at or above $78,000, 38% compared with 24% in the BOA.

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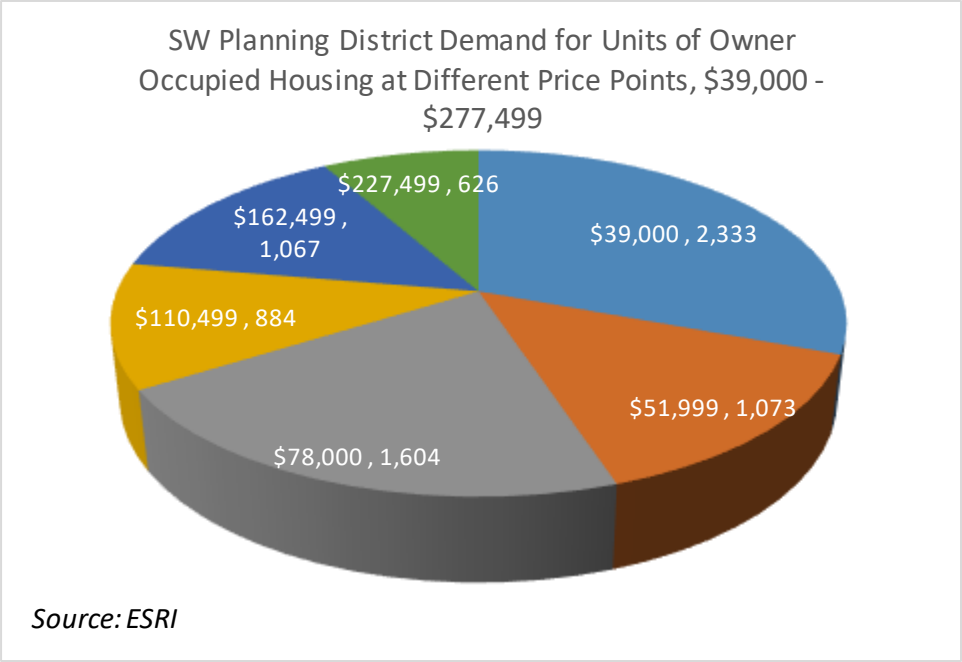
[26] *Housing Analysis and Reinvestment Strategies: Vacuum Oil BOA and Study Area, City of Rochester, New York.* RKG Associates, June, 2016.

[27] City of Rochester Sustainable Home Ownership, accessed 12/27/16: http://www.cityofrochester.gov/article.aspx?id=8589969091



Source: ESRI

SW Planning District - Home Value Demand Predicted by Gross Income				
Income, Middle of Range	Growth, 2016 - 2021	Number of Households, 2021	At 50% Owner Occupied	Home Value at 2.6 Multiplier
$15,000	214	4,666	2,333	$39,000
$20,000	(354)	2,145	1,073	$51,999
$30,000	885	3,207	1,604	$78,000
$42,500	(684)	1,767	884	$110,499
$62,500	(215)	2,134	1,067	$162,499
$87,500	165	1,251	626	$227,499
$125,000	(2)	688	344	$325,000
$175,000	41	214	107	$455,000
$200,000	2	145	73	$520,000
Households Expected to Own in Cost Category				
Below $78,000	745	10,018	5,009	62%
Above $78,000	(693)	6,199	3,100	38%

Source: ESRI, Camoin Associates

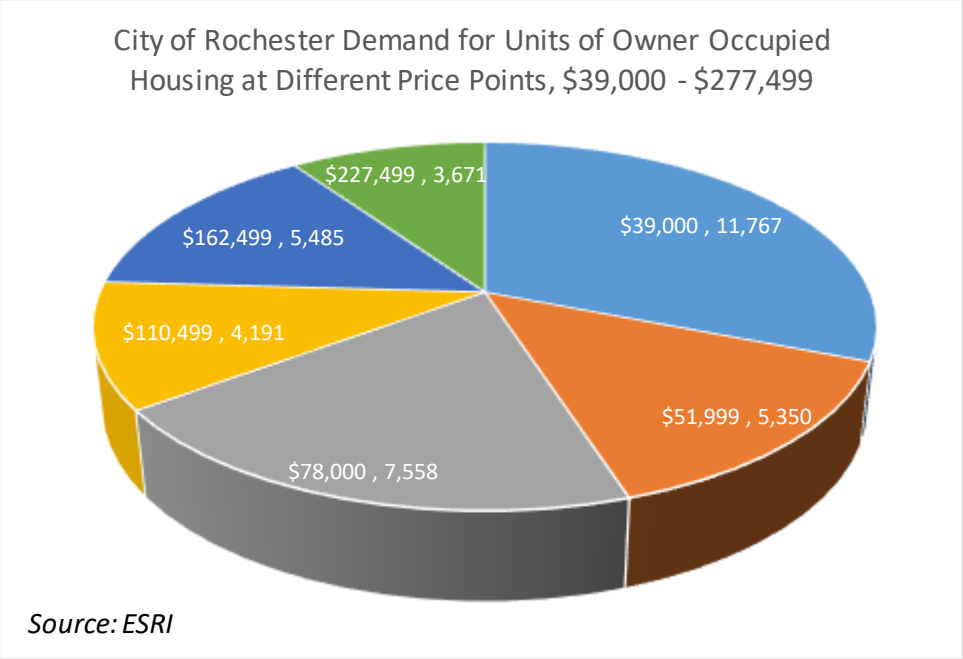
Most residents of the SW Planning District also qualify for home purchase programs offered by the City of Rochester.

- Home Purchase Assistance Program – 13,919 households, or 86%, are expected to have incomes below $74,999 by 2021 and therefore have qualifying incomes.
- Employer Assisted Housing Initiative – the city matches employer funds used toward employee purchases of homes in the city, no income limits.
- HOME Rochester – 13,919 households, or 86%, are expected to have incomes below $74,999 by 2021 and therefore have qualifying incomes.

- Greater Rochester Housing Partnership – Neighborhood Builders - 11,785, or 73% households are expected to have incomes at or below $49,999 by 2021 and would likely have incomes that qualify.

City of Rochester

The citywide median income of $30,990 is higher than the MHI of either the BOA or the SW Planning District. Therefore more households are expected to demand homes at higher price points. However, a plurality of 8,580 households are still expected to demand homes at the $39,000 price point.



Source: ESRI

Citywide, approximately 12,883 households would be expected to demand homes valued at or above $78,000.

City of Rochester - Home Value Demand Predicted by Gross Income				
Income, Middle of Range	Growth, 2016 - 2021	Number of Households, 2021	At 48% Owner Occupied	Home Value at 2.6 Multiplier
$15,000	1,117	24,514	11,767	$39,000
$20,000	(1,618)	11,145	5,350	$51,999
$30,000	4,265	15,745	7,558	$78,000
$42,500	(3,630)	8,731	4,191	$110,499
$62,500	(1,258)	11,428	5,485	$162,499
$87,500	862	7,647	3,671	$227,499
$125,000	373	5,562	2,670	$325,000
$175,000	340	1,969	945	$455,000
$200,000	124	1,471	706	$520,000
Households Expected to Own in Cost Category				
Below $78,000	3,764	51,404	24,674	58%
Above $78,000	(3,189)	36,808	17,668	42%

Source: ESRI, Camoin Associates

Not surprisingly, fewer households citywide have incomes that qualify for homeownership programs, but such programs are still available to a substantial majority of households:

- Home Purchase Assistance Program – 71, 563 households, or 81%, are expected to have incomes below $74,999 by 2021 and therefore have qualifying incomes.
- Employer Assisted Housing Initiative – the city matches employer funds used toward employee purchases of homes in the city, no income limits.
- HOME Rochester – 71, 563 households, or 81%, are expected to have incomes below $74,999 by 2021 and therefore have qualifying incomes.
- Greater Rochester Housing Partnership – Neighborhood Builders – 60,135, or 68% households are expected to have incomes at or below $49,999 by 2021 and would likely have incomes that qualify.

In addition to purchase support, the City of Rochester offers a series of programs through its Focused Investment Strategy, which targets revitalization resources toward specific neighborhoods. Resources were made available to rehabilitate and maintain owner-occupied homes. Four focus areas were chosen, with one neighborhood in the SW Planning District but no neighborhoods in the Vacuum Oil BOA. As noted in the RKG Study, the BOA may be a good candidate for expanding the program.

Student Housing Demand

This analysis of demand for student housing begins with an overview of national trends, including the building of privately-owned student housing projects, then addresses projected demand for student housing for the University of Rochester.

National Market Overview and Trends

Based on articles published by the national residential data company AXIOMetrics, privately owned student housing properties have been performing strongly in recent years, with tens of thousands of new beds coming online every year. The peak of the market was in 2013 and 2014, but the sector continues to grow and thrive. The leasing velocity (how quickly the units are rented) is holding steady or slightly improving as the units preleased for Fall 2016 much faster than Fall 2015. Effective rent rates are also increasing with an average of $617 per bed for Fall 2016 which is up more than 2% from Fall 2015[28]. At universities in the Northeast with enrollment over 20,000, there were 7 new major student housing projects in quarter 1 and 2 of 2014 and another 3 in the same quarters of 2015[29]. Some of the key factors driving development of projects include investment capital coming into the sector and increased college enrollment during the recession. Student housing is typically unaffected by external economic forces like

[28] Gunn, T. (2015, April 15). *AXIOMetrics*. Retrieved from Student Housing Research:Market Gains Strength: http://www.axiometrics.com/blog/student-housing-research-market-gains-strength

[29] Colliers International. (2015). *Tier 1 Housing Markets Q1 & Q@ Snapshot.* Retrieved October 15, 2016, from Ti: http://www.colliers.com/-/media/files/united%20states/pg%20and%20service%20lines/-student%20housing/research/2015/tier-1-market-snapshot_q2%2015_091115.pdf

increased unemployment which leads to consistent demand for housing providers. Vacancy rates at privately-owned off campus developments are very low with a 4.2% rate in January 2015 based on data from AXIOMetrics[30].

Beyond developing units to cater towards students, another trend in the college town market is developing units to serve the faculty, staff, and young professionals that locate in college towns. The rents at these types of developments are aimed at a different market and specifically make the units unattractive to students to ensure a more comfortable environment for their intended clientele, including higher rent rates, inconvenient timing of leases, and denying applicants who may rely on a guarantor (such as parents) to pay the rent. In some cases, these types of developments have had a ripple effect, which has led to the development of adjacent older-neighborhoods. For example, in Powelton Village, which is home to Drexel University, a development geared towards young professionals was built and then a company called Post Brothers Apartments bought adjacent ageing rental buildings and renovated them[31]. This trend seems to be a better fit for major urban areas where a higher price point can be demanded, residential development is in high demand, and developers need to maintain their competitiveness through updated units.

Local Market Analysis

Of the several colleges and universities in the City of Rochester and nearby communities, only the University of Rochester is located close enough to the Vacuum Oil BOA for it to be an attractive location; students can walk to the campus rather than relying on matching bus and class schedules, or owning a car. Monroe County Community College has a satellite campus but community colleges at this time do not generally create substantial local demand for student housing.

This analysis therefore looks at the University of Rochester and the housing targeted at students near the BOA. The Office for Off Campus Living provides assistance to faculty, staff, and students, including for locating housing, and the Plymouth-Exchange neighborhood is specifically identified in the *Off Campus Living Guide*. The university does not publish statistics about the percentage of students choosing off campus housing, but according to US News and World Report, 76 % of students live on campus, suggesting the remaining 24% live off campus. It does not differentiate between graduate and undergraduate students for housing choices.

Among colleges and universities in the northeast, students at the University of Rochester have the second-lowest costs for off campus housing, averaging per student $733 per month, as shown in the table below. While this cost is low for student housing, it is higher than Rochester's citywide average of $673/month for a 1-bedroom apartment. Since housing targeted at students is generally priced per person, it is significantly more expensive than two persons renting a residential 2-bedroom apartment at the citywide average of $895/month, or $447.50 per person. Certain aspects of student housing needs make direct comparisons with residential rentals weak, such as the shorter academic rental year that may leave landlords with summer vacancies and the administrative costs of selecting new tenants and processing new leases. In general, however, students appear to be willing to pay higher rents than other residents, which can make them attractive tenants from a financial perspective.

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[30] (ABODO National Student Housing, 2015) *ABODO Student Housing Report 2015*.

[31] Kaysen, R. (2016, January 19). College Towns Get New Housing, but It's Decidely Not Dorms. *New York Times*. Retrieved October 15, 2016, from http://www.nytimes.com/2016/01/20/realestate/commercial/developers-give-new-meaning-to-college-towns.html?_r=1

Off Campus Housing Comparison, Northeast Region			
Highest Monthly Cost Per Student		Lowest Monthly Cost Per Student	
Rutgers University - Newark	$2,926	Thomas Edison State College	$1,062
Essex County College	$2,923	Villanova University	$1,052
New Jersey Institute of Technology	$2,341	Central Connecticut State University	$1,032
CUNY City College	$2,274	Southern Connecticut State University	$1,019
Columbia University in the City of NY	$2,268	Community College of Allegheny County	$1,010
CUNY Queens College	$2,235	Duquesne University	$918
CUNY NY City College of Technology	$2,225	University of Pittsburgh	$913
Pace University - New York	$2,218	Carnegie Mellon University	$912
CUNY Brooklyn College	$2,217	University of Rochester	$733
Boston College	$2,203	Syracuse University	$676

Source: ABODO Student Housing Report 2015

Projected demand for student housing in the Vacuum Oil BOA is shown in the two tables below. Enrollment driven demand is expected to increase only slightly for undergraduates, by approximately 10 students per year, while declining for graduate students.

Undergraduate and graduate students are presented separately because they represent different market segments, with graduate students closer in some respects to junior faculty, in that they may be longer term renters, have families, and not engage in a social life active enough to cause landlords and neighborhood concerns about noise and traffic.

Off Campus Housing by Student Type, Fall 2016			
	Total Students	% Living Off Campus	# Living Off Campus
Graduate	4,393	39%	1,725
Undergraduate	6,386	14%	862
All Students	10,779	--	--
24% off campus	2,587	--	2,587

Source: University of Rochester, Camoin Associates

Graduate students are more likely to live off campus than undergraduates. They are likely to choose different housing from undergraduates, so some sense of the numbers of each group is useful. Since the University of Rochester provides enrollment and off campus living statistics in aggregate, it is assumed here that graduate students are twice as likely to choose off campus housing as undergraduates. Working back from 76% of all students, or 2,619, 1,725 graduate students and 862 undergraduates are assumed to live off campus in 2016.

Demand is driven by enrollment, and undergraduate enrollment at the University of Rochester has been growing steadily over the past five years. If 14% of undergraduates are assumed to live off campus, that would be a growth of only about 10 students per year.

University of Rochester Fall Enrollment, Undergraduates							
	2012	2013	2014	2015	2016	*2017*	*2018*
Full Time Students	5,512	5,837	5,942	6,046	6,170	*6,281*	*6,392*
Annual Change		325	105	104	124	*111*	*111*
Change 2012 - 2016					658		
Other Students	273	340	324	258	216	*175*	*133*
Annual Change		67	(16)	(66)	(42)	*(41)*	*(41)*
Change 2012 - 2016					(57)		
14% Living Off Campus	781	834	846	851	862	*872*	*881*

Source: University of Rochester, Camoin Associates

Graduate enrollment has been declining, consistent with a national trend that brought students into graduate schools to build skills as the recession began; as the job market has improved graduate school has become less attractive for many students. Demand for graduate housing would be expected to decline slightly.

University of Rochester Fall Enrollment, Graduate Students							
	2012	2013	2014	2015	2016	*2017*	*2018*
Full Time Students	2,842	3,016	3,062	2,992	2,994	*2,987*	*2,979*
Annual Change		174	46	(70)	2	*(7)*	*(7)*
Change 2012 - 2016					152		
Other Students	1,453	1,396	1,300	1,377	1,399	*1,400*	*1,401*
Annual Change		(57)	(96)	77	22	*1*	*1*
Change 2012 - 2016					(54)		
39% Living Off Campus	1,686	1,732	1,712	1,715	1,725	*1,722*	*1,720*

Source: University of Rochester, Camoin Associates

In conclusion, the data suggest that demand does not exist for an overall increase in supply of student housing options for the University of Rochester. There is likely a demand for higher quality units with more amenities, but new units would result in students who are currently living in adjacent city neighborhoods moving to these new developments, creating a void in other neighborhoods as a result of the vacated units. Within the Vacuum Oil BOA,, which is already sensitive to the suitability of large student housing buildings, targeting graduate students as part of a multi-market approach for rentals of existing or newly built single family and two-family units may be a productive way to leverage proximity to enrolled students.

Attachment A – Demographic Details

Population by Age

Vacuum Oil BOA						
	Census 2010		2016		2021	
Population by Age	Number	Percent	Number	Percent	Number	Percent
0 - 4	172	9.6%	165	9.2%	178	9.9%
5 - 9	137	7.6%	146	8.1%	156	8.7%
10 - 14	139	7.7%	128	7.1%	131	7.3%
15 - 19	151	8.4%	124	6.9%	116	6.5%
20 - 24	175	9.7%	184	10.2%	133	7.4%
25 - 34	197	11.0%	220	12.2%	301	16.7%
35 - 44	173	9.6%	160	8.9%	172	9.6%
45 - 54	188	10.5%	167	9.3%	159	8.8%
55 - 64	189	10.5%	197	11.0%	173	9.6%
65 - 74	152	8.5%	174	9.7%	157	8.7%
75 - 84	85	4.7%	93	5.2%	89	4.9%
85+	39	2.2%	40	2.2%	33	1.8%

Source: ESRI

SW Planning District						
	Census 2010		2016		2021	
Population by Age	Number	Percent	Number	Percent	Number	Percent
0 - 4	3,305	7.3%	3,175	7.1%	3,194	7.1%
5 - 9	3,026	6.7%	3,000	6.7%	2,918	6.5%
10 - 14	3,069	6.8%	2,821	6.3%	2,787	6.2%
15 - 19	4,987	11.0%	4,379	9.7%	4,203	9.4%
20 - 24	5,544	12.2%	5,420	12.1%	4,989	11.1%
25 - 34	6,298	13.9%	7,032	15.7%	7,366	16.4%
35 - 44	5,021	11.1%	4,600	10.2%	4,850	10.8%
45 - 54	5,359	11.8%	4,957	11.0%	4,544	10.1%
55 - 64	4,215	9.3%	4,522	10.1%	4,564	10.2%
65 - 74	2,510	5.5%	2,962	6.6%	3,210	7.2%
75 - 84	1,272	2.8%	1,373	3.1%	1,517	3.4%
85+	679	1.5%	686	1.5%	659	1.5%

Source: ESRI

City of Rochester						
	Census 2010		2016		2021	
Population by Age	Number	Percent	Number	Percent	Number	Percent
0 - 4	15,865	7.5%	15,246	7.2%	15,220	7.2%
5 - 9	14,002	6.6%	13,945	6.6%	13,662	6.5%
10 - 14	13,492	6.4%	12,888	6.1%	12,813	6.1%
15 - 19	16,625	7.9%	14,358	6.8%	13,832	6.6%
20 - 24	22,148	10.5%	22,199	10.6%	20,024	9.5%
25 - 34	35,405	16.8%	36,732	17.5%	37,978	18.0%
35 - 44	26,301	12.5%	24,770	11.8%	25,406	12.1%
45 - 54	26,977	12.8%	24,950	11.9%	23,222	11.0%
55 - 64	20,796	9.9%	22,848	10.9%	23,035	10.9%
65 - 74	10,463	5.0%	13,585	6.5%	15,806	7.5%
75 - 84	5,501	2.6%	5,757	2.7%	6,712	3.2%
85+	2,990	1.4%	3,032	1.4%	2,941	1.4%

Source: ESRI

Population by Ethnicity

Vacuum Oil BOA						
	Census 2010		2016		2021	
Race and Ethnicity	Number	Percent	Number	Percent	Number	Percent
White Alone	208	11.6%	182	10.1%	165	9.2%
Black Alone	1,452	80.7%	1,463	81.5%	1,473	81.8%
American Indian Alone	8	0.4%	8	0.4%	8	0.4%
Asian Alone	21	1.2%	22	1.2%	23	1.3%
Pacific Islander Alone	0	0.0%	0	0.0%	0	0.0%
Some Other Race Alone	25	1.4%	29	1.6%	32	1.8%
Two or More Races	85	4.7%	92	5.1%	99	5.5%
Hispanic Origin (Any Race)	85	4.7%	96	5.3%	108	6.0%

Source: ESRI

SW Planning District						
	Census 2010		2016		2021	
Race and Ethnicity	Number	Percent	Number	Percent	Number	Percent
White Alone	12,028	26.6%	11,005	24.5%	10,294	23.0%
Black Alone	28,699	63.4%	28,798	64.1%	28,965	64.7%
American Indian Alone	167	0.4%	170	0.4%	174	0.4%
Asian Alone	1,782	3.9%	2,005	4.5%	2,162	4.8%
Pacific Islander Alone	36	0.1%	41	0.1%	43	0.1%
Some Other Race Alone	818	1.8%	958	2.1%	1,059	2.4%
Two or More Races	1,757	3.9%	1,950	4.3%	2,104	4.7%
Hispanic Origin (Any Race)	2,707	6.0%	3,145	7.0%	3,553	7.9%

Source: ESRI

City of Rochester						
	Census 2010		2016		2021	
Race and Ethnicity	Number	Percent	Number	Percent	Number	Percent
White Alone	91,951	43.7%	86,794	41.3%	83,272	39.5%
Black Alone	87,897	41.7%	88,846	42.2%	89,763	42.6%
American Indian Alone	1,013	0.5%	1,074	0.5%	1,127	0.5%
Asian Alone	6,493	3.1%	7,081	3.4%	7,571	3.6%
Pacific Islander Alone	101	0.0%	114	0.1%	120	0.1%
Some Other Race Alone	13,754	6.5%	15,889	7.6%	17,298	8.2%
Two or More Races	9,356	4.4%	10,514	5.0%	11,503	5.5%
Hispanic Origin (Any Race)	34,456	16.4%	39,347	18.7%	43,589	20.7%

Source: ESRI

Attachment B – Household Income Details

Vacuum Oil BOA				
	2016		2021	
Households by Income	Number	Percent	Number	Percent
<$15,000	359	43.1%	366	43.5%
$15,000 - $24,999	127	15.2%	108	12.8%
$25,000 - $34,999	96	11.5%	164	19.5%
$35,000 - $49,999	134	16.1%	94	11.2%
$50,000 - $74,999	80	9.6%	67	8.0%
$75,000 - $99,999	29	3.5%	34	4.0%
$100,000 - $149,999	4	0.5%	5	0.6%
$150,000 - $199,999	1	0.1%	1	0.1%
$200,000+	3	0.4%	3	0.4%

Source: ESRI

SW Planning District				
	2016		2021	
Households by Income	Number	Percent	Number	Percent
<$15,000	4,452	27.5%	4,666	28.8%
$15,000 - $24,999	2,499	15.5%	2,145	13.2%
$25,000 - $34,999	2,322	14.4%	3,207	19.8%
$35,000 - $49,999	2,451	15.2%	1,767	10.9%
$50,000 - $74,999	2,349	14.5%	2,134	13.2%
$75,000 - $99,999	1,086	6.7%	1,251	7.7%
$100,000 - $149,999	690	4.3%	688	4.2%
$150,000 - $199,999	173	1.1%	214	1.3%
$200,000+	143	0.9%	145	0.9%

Source: ESRI

City of Rochester				
	2016		2021	
Households by Income	Number	Percent	Number	Percent
<$15,000	23,397	26.7%	24,514	27.8%
$15,000 - $24,999	12,763	14.6%	11,145	12.6%
$25,000 - $34,999	11,480	13.1%	15,745	17.8%
$35,000 - $49,999	12,361	14.1%	8,731	9.9%
$50,000 - $74,999	12,686	14.5%	11,428	13.0%
$75,000 - $99,999	6,785	7.7%	7,647	8.7%
$100,000 - $149,999	5,189	5.9%	5,562	6.3%
$150,000 - $199,999	1,629	1.9%	1,969	2.2%
$200,000+	1,347	1.5%	1,471	1.7%

Source: ESRI

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