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**Whitewater**

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Fiscal and Economic Research Center

**DODGE COUNTY HOUSING REPORT- AN  
ANALYSIS OF DODGE COUNTY AND ITS  
MUNICIPALITIES**

by

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# Executive Summary

The Fiscal and Economic Research Center of the University of Wisconsin Whitewater has reviewed data regarding both single family and multi-family housing which develops a picture of Dodge County, Wisconsin's housing market. This report contains three areas of analysis.

Part 1: Dodge County single-family housing supply, affordability, and demand

Part 2: Dodge County renter-occupied housing

Part 3: A housing analysis of fourteen communities in Dodge County

## A. Summary of Major Findings & Conclusions

The results for the Dodge County housing market show signs of a shortage. Of note, the results indicate a significant shortage of housing that is affordable to income constrained households. Policy changes that address this disequilibrium may improve the health of the housing market and prevent the current housing shortage from compounding.

## B. Part 1 Overview: Dodge County Single-Family Housing

### Determining Owner-Occupied Housing Demand & Supply

Part 1 of the report is focused on determining single-family housing demand and supply in the current Dodge County market. Months' supply of housing, home prices, and other metrics were analyzed to determine the current demand. The months' supply of housing and price of homes over time both indicate high demand for housing in the county which is not being met by current supply. The findings also suggest the housing shortage is compounded when affordable housing is analyzed in isolation.

### Affordable Owner-Occupied Housing Demand & Supply

The affordability of owner-occupied housing in Dodge County was reviewed by looking at Monthly homeowner housing costs as a percentage of income and Asset Limited, Income Constrained, Employed households (United For ALICE households). The ALICE data revealed household population in lowest income brackets lacked access to adequate housing.

### Change in Demand for Owner-Occupied Housing

"Population Projections and the Outlook of Dodge County's Homeowner Housing Market" analyzes projected demand changes for owner-occupied housing. Estimates regarding the need for additional owner and renter occupied homes between 2020-2025 and between 2020-2030 are based on Household population projections and other metrics discussed in the report. Using the Wisconsin Department of Administration household growth projections, housing demand is projected to increase by 1,189 owner-occupied units between 2020-2025. For the 10-year time frame from 2020-2030, an estimated 2,192 owner-occupied units will be needed. However, a note of caution, in reviewing prior projections, the Wisconsin Department of Administration (DOA) projections tend to overestimate household growth in recent years. Several potential household growth scenarios over the next ten years were therefore analyzed based on



American Community Survey and DOA household estimates to provide a better idea of near future housing demand in Dodge County.

### **Major Findings and Conclusions: Dodge County**

Based on the Study's analysis, this report also concludes that

- There is evidence of high demand for single-family housing in Dodge County.
- Results suggest that a shortage of single-family housing in Dodge County is pronounced for more affordable housing.
- Comparison of new housing construction, building permits, population growth, and other related projections suggest that the current shortage will continue without intervention.

## **C. Part 2 Overview: Dodge County Multi-Family Housing**

The rental-occupied housing section of the report looks at data that is focused on any housing where rent is collected. In 2019, roughly 30% of the households in Dodge County lived in rented housing. The percentage of people living in rented housing in Dodge County has remained relatively constant over recent years. The median household income for renting households in 2019 was \$38,133, while the median rent in the county was estimated at \$810/month or \$9,720/year. A household with income of \$38,133 could therefore expect to spend about 25% of its income on housing costs.

Dodge County's rental-occupied housing affordability differs slightly relative to the rest of the State of Wisconsin, in that it appears to be more affordable. US Department of Housing and Urban Development considers households that spend more than 30% of their income on housing are burdened by their housing costs. About 38.8% of Dodge County households spend 30% or more of their income on rent, whereas that number is 44% for the State of Wisconsin. However, the availability (supply) of adequate rental properties for income constrained households is lacking. The data shows the highest concentration of rental households spending 30% or more on housing costs fall below the rental household median income.

Rental supply and demand over the past several years have been relatively stable. Both the number of renting households and the quantity of newly built rental units have remained low. However, the median rental price in Dodge County has appreciated 6.4% since 2015 outpricing many of the households in Dodge County. The data suggests a need for additional cost-effective rental units targeted to households earning less than the 2019 median rental income of \$38,133.

## **D. Part 3 Overview: Municipalities Within Dodge County**

In addition to assessing Dodge County as a whole, data was also collected for the cities, villages, and townships. Note that several of these communities overlap county boundaries. The metrics presented for these municipalities in this report made use of each municipality's individual boundary, extending beyond the Dodge County boundary where appropriate. Measures that were used on a county wide level were also used to determine the health of the housing market in the identified municipalities. Similar housing shortage trends found in the County level analysis are evident across the municipalities. However, for the smaller communities, there were limits on the availability of all data points.

Each of the municipalities has its own unique housing situation, but some housing trends are present across the municipalities. The supply of available single-family homes in all of the municipalities has diminished considerably over the last five years. The municipalities, collectively and individually, have low months' inventories and high home price appreciation. New housing supply has not been able to keep pace with increasing housing demand. Housing construction rates across the municipalities have been low and do not meet projected household population growth.

Applying the ALICE household data provides further insight into the availability of housing for income constrained households. The municipalities have a heterogeneous distribution of ALICE households. For example, the City of Horicon and the City of Waupun have 30% and 33% of households that are below the ALICE Threshold, which is comparable to Dodge County, but in the City of Watertown, 46% of households are below the ALICE Threshold. Each municipality should review ALICE household distribution when addressing local housing availability issues.

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## **Data Sources Used in the Study**

### **American Community Survey (ACS) – Census**

The American Community Survey (ACS) is a demographics survey issued each year by the Census Bureau. The survey has an initial sample of 3.5 million housing units each year and each housing unit is randomly selected a maximum of once every five years. This factors to one in thirty-eight US households receiving an invitation to participate in the study each year. Due to the nature of how the data is collected for the ACS, estimates tend to be most accurate for areas with populations of at least 65,000. Areas with smaller populations run more of a risk that the households surveyed do not provide an accurate representation of all the households in the area. Therefore, the ACS estimates presented in this report on a municipality level have higher levels of uncertainty. Keep in mind that due to the smaller sample sizes, the municipality projections tend to have wide margin of errors.

### **Wisconsin Department of Administration (DOA)**

The Wisconsin Department of Administration Demographic Services Center develops annual population estimates and future projections for the State of Wisconsin and its counties and municipalities. The household projections developed by the DOA in 2013 using 2010 Census population data are used in this report to estimate future housing demand on a county and municipality level.

### **Wisconsin Department of Revenue (DOR)**

The Wisconsin Department of Revenue records all real estate transfers in the State of Wisconsin. This provides data on property sales including location, date, and selling price of homes. Under Wisconsin law, these records are required to be publicly accessible. The data is used in the report to identify recent months' inventory and home price appreciation in Dodge County and its municipalities. The real estate transferred are filtered to isolate arms-length transactions.

# Part 1: Dodge County Single Family Housing

## A. Current Supply of Single-Family Housing

Part 1 of this report analyzes the current state of the single-family housing market in Dodge County by estimating the months' supply of housing and home values over time.

- **The months' supply of housing** is the ratio of houses for sale to houses sold. "This provides an indication of the size of the for-sale inventory in relation to the number of houses currently being sold. The months' supply indicates how long the current for-sale inventory would last given the current sales rate if no additional new houses were built (St. Louis Federal Reserve Bank). This indicator is determined by dividing the total number of homes for sale by the number of sales per month. According to the National Council of Housing Market Analysts, "A market area's performance in adding and filling additional units is often a better gauge of its ability to accommodate additional units than household growth statistics, especially in an area with a stable or declining population or an aging housing stock that does not satisfy needs or expectations of current residents."
- **Housing prices over time** are analyzed to evaluate demand directly. Increases in housing prices over time in a particular area can suggest an undersupply of housing, in combination with other factors.

## B. Months' Supply of Housing: Dodge County

The Months' Supply of Housing is important for estimating housing demand because it provides insight on the rate at which houses are selling, compared to the unused supply of homes. The Months' Supply of Housing is calculated by taking the number of for-sale homes and dividing it by the number of sales per month over a certain period (in this case 1 year). This metric can also be reframed as the Absorption Rate, which describes the percent of the existing for-sale homes that would be sold in 1 month if homes continued to sell at the same rate (e.g., a 3 months' supply of housing corresponds to a 33.3% absorption rate, as 1 month supply/3 months' supply = 33% sold in a single month).

## **Months' Supply of Housing: Methodology**

The Months' Supply of Housing was calculated using housing sale data from the Wisconsin Department of Revenue historical real estate transfer records. An analysis of Dodge County's for-sale single-family housing market was completed.

- **Dodge County, Single-family Homes:** The Dodge County single-family home data showed 110 homes sold per month, and 0.78 Months' Inventory as of February 2021 (see table 1)

<b>Table 1: Dodge County Months' Inventory of Single-Family Homes</b>						
	Homes Sold Over Last Year	Months	Average Sold Per Month	Available to be Sold February 2021	Months' Supply of Housing	Absorption Rate
Dodge	1,314	12	110	85	0.78	129.0%

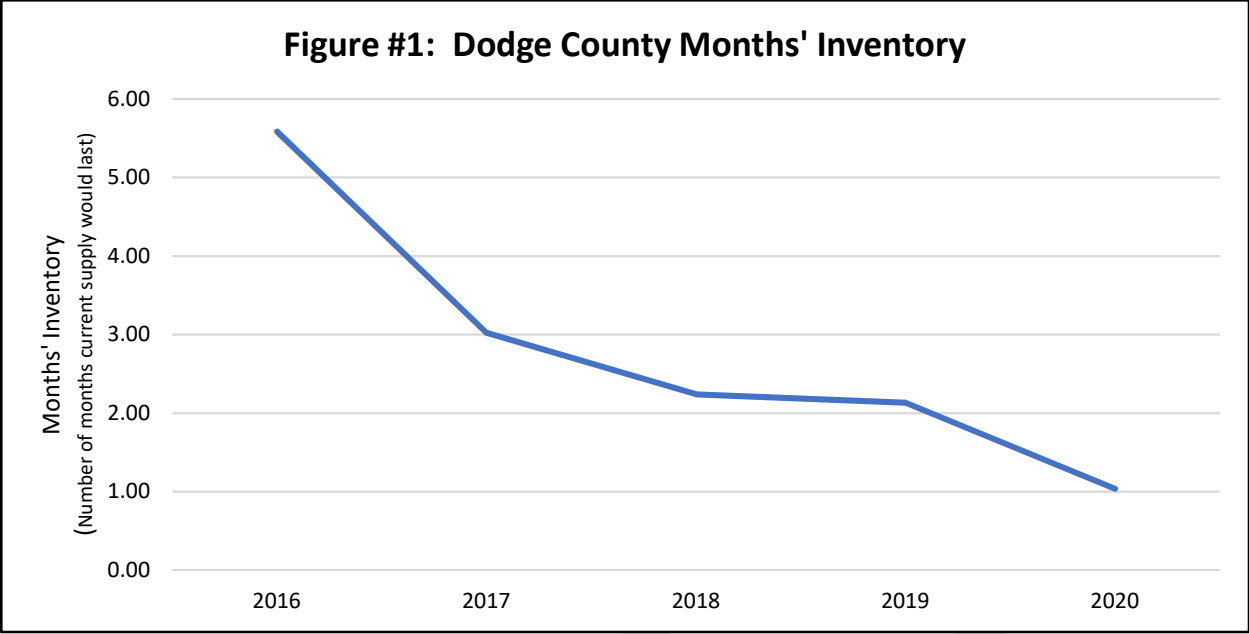
*\*Source: Realtor.com and Wisconsin Department of Revenue*

Typically, a market that favors sellers has less than 6 months of supply, while more than 6 months of supply indicates an excess of homes for sale that favors buyers (Findwell). As a result, a Months' Supply of Housing lower than 6 months is a "seller's market" where supply is not meeting demand (i.e., a shortage). Dodge County is below this six-month threshold.

Even when averaged over each year, Dodge County's months' supply of housing has been decreasing, and has been below the 6 months' supply mark since 2016. Dodge County averaged a 1.04 months' supply of housing in 2020. This indicates there is excess demand for single-family housing in Dodge County.

<b>Table 2: Dodge County Months' Inventory: Single-Family Homes</b>						
	Homes Sold	Months	Average Sold Per Month	Average Available to be Sold	Months' Supply of Housing	Absorption Rate
2016	932	12	78	434	5.59	17.9%
2017	1,224	12	102	308	3.02	33.1%
2018	1,183	12	99	221	2.24	44.7%
2019	1,190	12	99	211	2.13	46.9%
2020	1,316	12	110	114	1.04	96.6%

*\*Source: Realtor.com and Wisconsin Department of Revenue*



*\*Source: Realtor.com and Wisconsin Department of Revenue*

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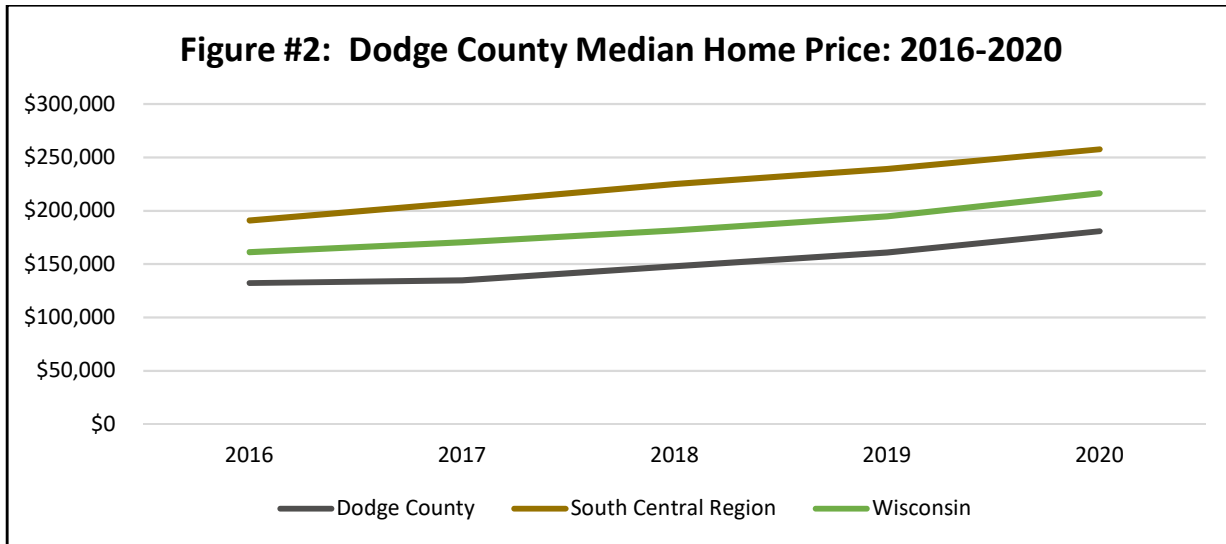
## C. Housing Prices Over Time

A supply shortage may result in increasing home prices. Housing prices across the state (and across the country) have trended upwards since 2013. The data in Table 4 are estimates provided by the Wisconsin Realtors Association. The median price is calculated using summary data of sales prices from multiple listing services measuring existing home and condo sales. As seen in the figures, median home prices for Dodge County have appreciated slightly faster than both the South-Central Region of Wisconsin and the State of Wisconsin as a whole. The Wisconsin Realtors Association defines the South-Central Region of Wisconsin as Columbia, Crawford, Dane, Dodge, Grant, Green, Iowa, Jefferson, Lafayette, Richland, Rock, and Sauk counties. The total percent appreciation estimate demonstrates a 36.7% increase in the median home sale price for Dodge County from 2016 to 2020. However, the median home price in Dodge County remains below the median home price of Wisconsin and the South Central Region over the past five years. This may drive demand and prices upward, which can exacerbate the affordability challenge. As shown in Table 4, Dodge County had a high rate of home price appreciation in the last year alone. The median price appreciated 12.4% in 2020 well outpacing the South Central Region median price appreciation of 7.7%. The most recent data from April 2021 suggest home prices are continuing to increase. Note that home sales are strongest in the spring often yielding elevated prices.

**Table 4: Dodge County Median Home Price**

Year	Dodge			South-Central Region			Wisconsin		
	Median	Yearly Increase	Total % appreciation since 2015	Median	Yearly Increase	Total % appreciation since 2015	Median	Yearly Increase	Total % appreciation since 2015
2016	\$132,321	-	-	\$190,963	-	-	\$161,250	-	-
2017	\$134,933	2.0%	2.0%	\$207,804	8.8%	8.8%	\$170,563	5.8%	5.8%
2018	\$148,033	9.7%	11.9%	\$225,108	8.3%	17.9%	\$181,583	6.5%	12.6%
2019	\$161,000	8.8%	21.7%	\$239,038	6.2%	25.2%	\$194,700	7.2%	20.7%
2020	\$180,888	12.4%	36.7%	\$257,512	7.7%	34.8%	\$216,375	11.1%	34.2%
April 2021	\$195,500	-	-	\$289,900	-	-	\$235,000	-	-

\*Source: Wisconsin REALTORS® Association accessed on 5/17/2021



\*Source: Wisconsin Realtors Association accessed on 5/17/2021

### **Dodge County Median Close Price**

The Wisconsin Department of Revenue's home sale database is employed to create the median home sale prices for the last five years, 2016-2020. This data captures actual single-family home sales within a given time period. This data finds that the median closed home sales price increased by 9.9% in 2020, and 32.9% over the five-year period. The data was further broken down into quantiles based on home prices. In this instance, the data is divided into three parts, with the second portion representing the average. For example, in 2020 the first quantile estimate is \$126,000. As a result, 33% of single-family homes sold in Dodge County during 2020 were closed below \$126,000. The first and third quantile estimates have both grown year to year which is consistent with the increasing overall home price median. The first quantile and third quantile estimates have grown at approximately the same pace when averaged over the past five years. Therefore, home price appreciation appears to be consistent across these three housing sectors. Neither sector seems to exhibit a larger effect on the overall increasing median home price.

<b>Table 5: Dodge County Single Family Median Close Price</b>			
Year	Median Home Price	Increase from Previous Year	Total % Appreciation Since 2016
2016	\$129,000	-	-
2017	\$139,900	8.4%	8.4%
2018	\$142,000	1.5%	10.1%
2019	\$156,000	9.9%	20.9%
2020	\$171,500	9.9%	32.9%

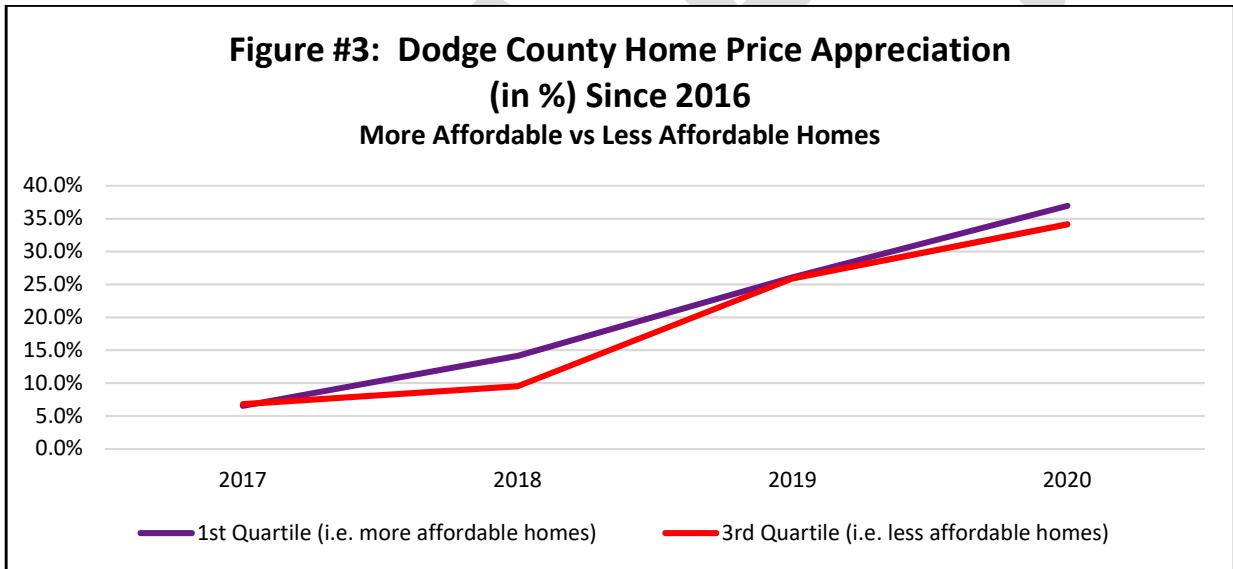
\*Source: Wisconsin Department of Revenue



**Close Price by Quantile**

Table 6: Dodge County Close Price Quantiles						
Year	1st Quantile			3rd Quantile		
	Estimate	Increase from Previous Year	% Appreciated Since 2016	Estimate	Increase from Previous Year	% Appreciated Since 2016
2016	\$92,000	-	-	\$182,625	-	-
2017	\$98,000	6.5%	6.5%	\$195,000	6.8%	6.8%
2018	\$105,000	7.1%	14.1%	\$200,000	2.6%	9.5%
2019	\$116,000	10.5%	26.1%	\$230,000	15.0%	25.9%
2020	\$126,000	8.6%	37.0%	\$245,000	6.5%	34.2%

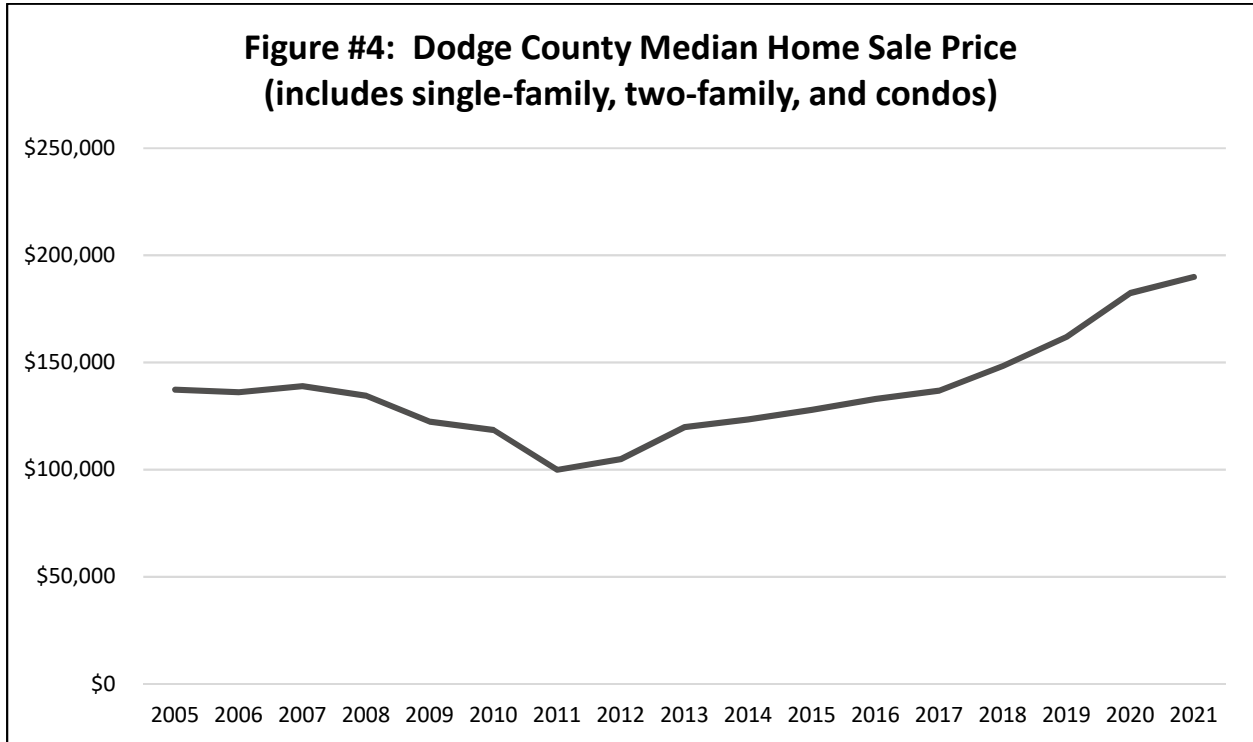
*\*Source: Wisconsin Department of Revenue*



*\*Source: Wisconsin Department of Revenue*

### **2005 to 2021: Trend of All Residential Sales**

A comparison between the residential sale price over time shows that in Dodge County, the current (2021) median residential sale is \$53,750 higher than it was in 2006.



*\*Source: Wisconsin Realtors Association accessed on 5/17/2021.*

The median home price and home close price data suggest that Dodge County single-family housing prices have appreciated faster than statewide increases. In 2020 alone, the median home prices in Dodge County increased by 12.4%. Dodge County home prices have even slightly outpaced the state of Wisconsin's home price appreciation over the past five years.

In total, the home prices for Dodge County are suggestive of excess demand (i.e. a shortage of supply) and this demand appears slightly concentrated around more affordable housing.

## D. Single-Family Housing Availability to Homebuyers

One consideration of a housing market is affordability to new potential homebuyers. The National Association of Realtors 2020 Profile of Home Buyers and Sellers found that nationally the typical homebuyer in 2019 had a median income of \$96,500 and was age 47. For comparison, the median household income according to the American Community Survey (ACS) in 2019 for Dodge County was \$61,300 and the median household income for WI was \$64,168. Of homebuyers, first-time homebuyers accounted for 31% of all home sales, dropping from 33% in 2018.

Table 9: Typical Household Profile of a Homebuyer in 2019	
Median Householder age	47 years old
Median Household Income	\$94,500 per year
First-time Home Buyer	31% Chance

*\*Source: National Association of Realtors*

To compare housing affordability based on payments that are 30% or greater than household income for first-time homebuyers, imagine a hypothetical three-person homeowner household at various levels of income. As can be seen in the table below, such homeowner households with an income just under the poverty line (which according to Wisconsin Department of Health Services as of February 1, 2021 is \$21,960 for a family of 3) and up to the median income of the typical homebuyer in 2019. Housing affordability in Dodge County is similar to Wisconsin as a whole.

Table 10: Percent of Homeowner Households within each Income Bracket whose Housing Costs are 30 Percent or More of Household Income		
Household Income Bracket	Dodge County	Wisconsin
\$20,000 to \$34,999	50%	49%
\$35,000 to \$49,999	31%	32%
\$50,000 to \$74,999	17%	17%
\$75,000 or more	19%	17%

*\*Calculated using American Community Survey (2015-2019) data*

Table 11: Percent of Homeowner Households within each income Bracket whose Housing Costs are 20 Percent or More of Household Income		
Household Income Bracket	Dodge County	Wisconsin
\$20,000 to \$34,999	76%	77%
\$35,000 to \$49,999	54%	58%
\$50,000 to \$74,999	48%	47%
\$75,000 or more	3%	3%

## E. Affordability of Housing: Dodge vs. Wisconsin

In addition to the prior analysis of home values, the Study also analyzed the affordability of housing using American Community Survey data. Specifically, the Study analyzed the average monthly housing costs for homeowners across various income brackets, as a percentage of their monthly income. This analysis was completed for both Dodge County and the State of Wisconsin. In *Table 12* and *Table 13*, housing affordability for homeowner households in Dodge County and the State are shown. Both the State of Wisconsin and Dodge County are facing similar issues of lower income earning housing spending the largest percent of their income on housing costs. The house cost challenge in Dodge County is slightly lower than the State of Wisconsin overall.

Table 12: Dodge County Homeowner Costs by Income Bracket			
Yearly Income	% Homeowner Households in Income Bracket	Monthly Housing Costs as a Percentage of Average Monthly Income	Percentage of Owner-Occupied Households for Specified Income Bracket
Less than \$20,000	5.9%	Housing Costs are Less Than 20 Percent of Income	5%
		Housing Costs are 20 to 29 Percent of Income	14%
		Housing Costs are 30 Percent or More of Income	82%
\$20,000 to \$34,999	11.5%	Housing Costs are Less Than 20 Percent of Income	23%
		Housing Costs are 20 to 29 Percent of Income	26%
		Housing Costs are 30 Percent or More of Income	50%
\$35,000 to \$49,999	13.2%	Housing Costs are Less Than 20 Percent of Income	46%
		Housing Costs are 20 to 29 Percent of Income	23%
		Housing Costs are 30 Percent or More of Income	31%
\$50,000 to \$74,999	19.9%	Housing Costs are Less Than 20 Percent of Income	52%
		Housing Costs are 20 to 29 Percent of Income	31%
		Housing Costs are 30 Percent or More of Income	17%
\$75,000 or more	49.0%	Housing Costs are Less Than 20 Percent of Income	78%
		Housing Costs are 20 to 29 Percent of Income	19%
		Housing Costs are 30 Percent or More of Income	3%

\*Zero or negative income: <1%

\*\*Calculated using American Community Survey (2015-2019) data

**Table 13: Wisconsin Homeowner Costs by Income Bracket**

Yearly Income	% Homeowner Households in Income Bracket	Monthly Housing Costs as a Percentage of Average Monthly Income	Percentage of Owner-Occupied Households for Specified Income Bracket
Less than \$20,000	6.6%	Housing Costs are Less Than 20 Percent of Income	5%
		Housing Costs are 20 to 29 Percent of Income	11%
		Housing Costs are 30 Percent or More of Income	84%
\$20,000 to \$34,999	10.1%	Housing Costs are Less Than 20 Percent of Income	23%
		Housing Costs are 20 to 29 Percent of Income	28%
		Housing Costs are 30 Percent or More of Income	49%
\$35,000 to \$49,999	11.5%	Housing Costs are Less Than 20 Percent of Income	42%
		Housing Costs are 20 to 29 Percent of Income	26%
		Housing Costs are 30 Percent or More of Income	32%
\$50,000 to \$74,999	19.3%	Housing Costs are Less Than 20 Percent of Income	53%
		Housing Costs are 20 to 29 Percent of Income	30%
		Housing Costs are 30 Percent or More of Income	17%
\$75,000 or more	52.0%	Housing Costs are Less Than 20 Percent of Income	78%
		Housing Costs are 20 to 29 Percent of Income	18%
		Housing Costs are 30 Percent or More of Income	3%

\*Zero or negative income: <1%

\*\*Calculated using American Community Survey (2015-2019) data

## **Dodge County Homeowner Housing Costs Based on Income**

The total number of homeowner households in Dodge County was broken down based on income level and housing cost. The highest concentration of homeowners spending 30% or more of their average monthly income on housing costs are in the lower income brackets.

<b>Table 14: Dodge County Homeowner Household Spending on Housing</b>			
<b>Yearly Income</b>	<b>Total Homeowner Households</b>	<b>Number of Households Spending More Than 30% of Average Monthly Income on Housing Costs</b>	<b>Number of Households Spending More Than 20% of Average Monthly Income on Housing Costs</b>
Less than \$20,000	1,445	1,180	1,377
\$20,000 to \$34,999	2,809	1,416	2,156
\$35,000 to \$49,999	3,215	988	1,738
\$50,000 to \$74,999	4,857	821	2,348
\$75,000 or more	11,943	368	2,603
<b>Total</b>	<b>24,269</b>	<b>4,773</b>	<b>10,222</b>

*\*Zero or negative income: <1%*

*\*\*Calculated using American Community Survey (2015-2019) data*

## **Housing Costs that Burden a Household**

A brief review of the idea of the “housing burden” is necessary to provide context to the concept. The idea of the “housing-cost burdened” individual (the 30 percent threshold) stems from the 1937 National Housing Act. This public housing program sought to serve lower income families in need. It called for income limits as opposed to rent limits; in other words, an individual’s income could not exceed five to six times the rent.

Following World War II, this system was inverted into a maximum rent standard in which rent could not exceed 20 percent of a household’s income. Later, in The Housing Act of 1959, the maximum rent percent was maintained but local public housing authorities were given more leeway in establishing what the percent amount would be. Ten years later in 1969 rent controls, mixed with rising costs associated with maintaining buildings, began taking a toll on those willing to rent and, in so doing, effectively began to undo the public housing program.

To combat this growing issue, the Brooke Amendment of 1969 was added to the 1968 Housing and Urban Development Act, which raised the percent threshold to 25 percent of a family’s income. By 1981, this had been raised to 30 percent. This became the general rule of thumb and spread across the housing industry. Even federal housing institutions like Fannie Mae and

Freddie Mac would not purchase regular mortgages if the underlying costs were more than 28 percent of the borrower's income (or 29 percent if it was an FHA insured loan). The 30 percent rule of thumb has remained since 1981 and has continued to provide a valuable guide when considering analytical reports or policy proposals.

### **Housing Cost Calculation**

The housing costs themselves are typically calculated by tabulating data acquired from the American Community Survey (ACS). For owners, costs are derived by asking questions about their: mortgages, second mortgages or home equity loans, real estate taxes, homeowners insurance, condo fees (if applicable), manufactured home costs (if applicable), and utilities (electric, gas, water, and sewer, etc.). For renters, the gross rent costs come from a simpler list of questions: the amount of their contract rent and their utilities. Both metrics are divided by the monthly income of that house to determine whether the homeowner or renter is spending 30 percent or more on housing expenses. When this is the case, the owner or renter is determined to be "housing-cost burdened."

DRAFT

## **F. United for ALICE: Dodge County Housing Affordability**

United For ALICE measures household financial hardship on a state and county level. It seeks to reveal segments of households in a community who struggle to afford basic needs. United For ALICE uses a standardized methodology to assess the cost of living in a community and to identify struggling or ALICE (Asset Limited, Income Constrained, Employed) households. The most recent ALICE report for Wisconsin was completed in 2020 based upon 2018 Census data.

In the initial Dodge County analysis, housing affordability for single-family homes in the County was examined using federal data collected by the US Census American Community Survey. The US Census data estimates household income and housing costs. This offers a picture of which households are bearing the heaviest housing costs as a proportion of income. However, this data is collected on a federal level and, therefore, may not directly capture the distinctive living situation in Dodge County. United For ALICE data takes into consideration the cost of living in different states, counties, and municipalities providing further insight into the affordability of housing in Dodge County.

The ALICE Threshold/standard is derived from the Household Survival Budget; a standardized budget used by ALICE to measure the cost of living in a particular community. The Household Survival Budget estimates the minimal cost of the five basic household necessities – housing, childcare, food, transportation, and health care to formulate a monthly budget that covers essentials, taxes, and an additional 10% for miscellaneous needs. Households are designated as ALICE if they fall below the ALICE Threshold, but are above the Federal poverty line. Based on calculations from the American Community Survey and the ALICE Threshold in 2018, Dodge County had 6,980 households (19.8%) classified as ALICE and an additional 3,241 households (9.2%) fall below the Federal Poverty Level.



## Households Below the ALICE Threshold in Dodge County

Households below the ALICE threshold fall short of meeting the minimal annual income required to meet costs of basic identified necessities. The ALICE threshold is adjusted based on household size and composition. The ALICE data suggest that a household with two adults and two school age children earning less than \$55,212 a year will struggle to find adequate housing they can afford.

Table 15: Dodge County Households Below the Alice Threshold						
	Single or Cohabiting		Families with Children		65 and Older	
Total Households in Category	16,647		9,059		9,515	
Number of Households Below ALICE Threshold*	3,906		2,168		4,147	
Example Households	Single Adult	Two Adults	Two Adults, Two School-Age Children	Two Adults, Two Children in Child Care	Single Senior	Two Seniors
Monthly Housing Cost Allocated by ALICE	\$566	\$570	\$758	\$758	\$566	\$570
Monthly Cost of Other Necessities Allocated by ALICE**	\$1,279	\$2,183	\$3,843	\$5,003	\$1,450	\$2,473
Monthly Total	\$1,845	\$2,753	\$4,601	\$5,761	\$2,016	\$3,043
Annual Total (ALICE Threshold)	\$22,140	\$33,036	\$55,212	\$69,132	\$24,192	\$36,516

\*Number of households designated as ALICE + the number of households below the Federal Poverty Level

\*\*Includes: childcare, food, transportation, healthcare, taxes, and an additional 10% for miscellaneous needs

\*\*\*Source: United For ALICE 2018, US Census Bureau, Bureau of Labor Statistics

United For ALICE uses HUD Fair Market Rent to calculate housing costs for different housing types based on household size. The cost is set to the fair market rent price in Dodge County calculated by HUD. The fair market rent price includes the cost of utilities (electricity, gas, water, sewer, and trash removal) but not telephone or internet service and is set in Dodge County at the 40<sup>th</sup> percentile of market rent prices, which is below the median rental price.

### United For ALICE assumes housing needs based on household size:

- Single Person – efficiency apartment
- Head of household with a child or a household with two adults – one-bedroom apartment
- Household with three or more people – two-bedroom apartment

Households below the ALICE threshold either must find housing below the fair market rent rate in Dodge County or are forced to cut back on other necessities. For example, consider a household with two adults and two school age children earning \$52,451 annually, which is 95% of the ALICE threshold. If the household's spending on necessities besides housing remains unchanged at \$3,843, the household would be left with \$528 per month to spend on housing. This household would struggle to afford even a one-bedroom apartment at the fair market price of \$570 per month and be unable to afford a two-bedroom apartment at fair market price of

\$758 unless the household cut back on other necessity spending such as food, childcare, or healthcare.

### **Affordable Housing Unit Stock**

The number of housing units in Dodge County that are affordable to households below the ALICE threshold can be calculated using home values and rent costs. Using American Community Survey data, the number of homes affordable to single or cohabiting households and family households was estimated.

### **Mortgage Monthly Cost Approximation**

There are some assumptions that need to be made in this calculation. First assumption, the home mortgage is a 30-year fixed mortgage with a 4% rate. Recently, mortgage rates have fallen to all-time lows below 3%, however, 30-year mortgage rates over the past decade have averaged around 4%. Note that a higher rate exacerbates the challenges to affordability while a lower rate increases the quantity of homes income constrained households can afford. While property tax rates vary between communities, the model uses a total combined mill rate of \$19.00. The average insurance rate in Dodge county of \$642 is used, and the model also anticipates a 20% down payment (a lower down payment also increases the challenges to the family). As a result, a family with two children is allocated \$822 in the 2018 ALICE survival budget to spend on monthly housing costs. This family can afford a mortgage on a home that is valued at approximately \$130,000.

### **Single or Cohabiting Households**

Single and cohabiting households are allocated \$566 and \$570 respectively to cover housing costs under the ALICE survival budget in 2018. Households under the ALICE threshold will either be unable to afford these monthly costs or will be required to forgo other necessities to afford housing. Therefore, in order for these households to acquire affordable housing, monthly housing costs for these households must be under \$570.

The American Community Survey does not directly estimate the number of homes with housing costs below \$570. Although the exact number of homes with housing costs below \$570 could not be calculated, a close estimation can be produced by extrapolating estimates for homes with housing costs below \$600. Additionally, the ALICE data is from 2018, and to remain consistent, the American Community Survey housing data is therefore from the 2014-2018 five-year average estimate.

Using American Community Survey data, the approximate number of house units with monthly housing costs under \$570 was estimated using the criteria specified above. The number of housing units rented below \$570 was added to the number of housing units with mortgage payments under approximately \$570 to estimate the total housing stock that is affordable to single and cohabiting households below the ALICE threshold. There are a total of 8,053 single and cohabiting households below the ALICE threshold and 5,898 housing units with monthly housing costs below approximately \$600. This suggests there is a shortage of 2,007 adequate housing units for these households.

**Table 16: Housing for Households that are Single or Cohabiting Below the Alice Threshold**

Households Under 65 Years Below ALICE Threshold	Households 65 Years and Older Below ALICE Threshold	Total Single and Cohabiting Households Below ALICE Threshold	HUD Fair Market Price for One-Bedroom Apartment	Housing Units with Rent Below \$570	Housing Units Valued < \$100,000 (Mortgage Payment Under Approximately \$570)	Total Housing Units with Monthly Housing Cost Under Approximately \$570
3,906	4,147	8,053	\$570	1,342	4,556	5,898

*\*Source: United For ALICE 2018, US Census Bureau, Bureau of Labor Statistics, ACS 5 Year Estimate (2014-2018)*

## **Households with Children**

Households with two children are allocated \$758 to cover housing costs under the ALICE survival budget in 2018. Households under the ALICE threshold will either be unable to afford these monthly costs or will be required to forgo other necessities to afford housing. Therefore, in order for these households to acquire affordable housing, monthly housing costs for these households must be under \$758.

The American Community Survey does not directly estimate the number of homes with housing costs below \$758. Although the exact number of homes with housing costs below \$758 could not be calculated, a close estimation can be produced by extrapolating estimates for homes with housing costs below \$800. Additionally, the ALICE data is from 2018 and, to remain consistent, the American Community Survey housing data is therefore from the 2014-2018 five-year average estimate.

Using American Community Survey data, the approximate number of house units with monthly housing costs between \$570-\$758 was estimated using the mortgage calculation criteria specified above. The number of housing units rented between \$570-\$758 was added to the number of housing units with mortgage payments between approximately \$570-\$758 to estimate the total housing stock that is affordable to households with children below the ALICE threshold. There is a total of 2,602 households with children below the ALICE threshold and 6,066 housing units with monthly housing costs between approximately \$570-\$758. This suggests there is a surplus of 3,464 housing units available for households with children.

**Table 17: Housing for Households with Children Below the ALICE Threshold**

Households with Children Below the ALICE Threshold	HUD Fair Market Price for Two-Bedroom Apartment	Housing Units with Rent \$570 - \$758	Housing Units Valued at \$100,000-\$130,000 (Mortgage Payments Approximately \$570-\$758)	Total Housing Units with Monthly Housing Cost Approximately \$570-\$758
2,602	\$758	2,161	3,905	6,066

*\*Source: United For ALICE 2018, US Census Bureau, Bureau of Labor Statistics, ACS 5 Year Estimate (2014-2018)*

## Housing Stock Available to Alice Households

<b>Table 18: Affordable Housing Units &amp; ALICE Households</b>				
	HUD Fair Market Price for Adequate Apartment	Households	Housing Units Below HUD Fair Market Price	Household & Housing Unit difference
Single and Cohabiting Households Below ALICE Threshold	\$570	7,905	5,898	<b>(2,007)</b>
Households with Children Below the ALICE Threshold	\$758	2,602	6,066	<b>3,464</b>

*\*Source: United For ALICE 2018, US Census Bureau, Bureau of Labor Statistics, ACS 5 Year Estimate (2014-2018)*

The number of single and cohabiting households below the ALICE Threshold exceeds the number of homes affordable to these households. The data indicates that there are 2,007 households who cannot afford a \$570 monthly home payment. The supply of available units is inadequate to serve these households. Presumably, these households are spending more than \$570 on housing per month and are forgoing other necessities.

It appears that there are adequate housing options for households with children below the ALICE threshold. Even assuming single and cohabiting ALICE households unable to find housing below \$570 are spending more on housing there still seems to be adequate housing options for ALICE households. If a comparison of the total number of households below the ALICE threshold to the total number of housing units with monthly housing costs below \$758 is completed, there appears to be adequate housing to meet ALICE household needs. The data indicates that an additional 1,457 housing units with monthly housing costs below \$758 will be available after accounting for each ALICE household.

<b>Table 19: Affordable Housing Units &amp; ALICE Households</b>		
Households Below the ALICE Threshold	Housing Units with Monthly Costs Below \$758	Housing Unit & Household Difference
10,507	11,964	<b>1,457</b>

*\*Source: United For ALICE 2018, US Census Bureau, Bureau of Labor Statistics, ACS 5 Year Estimate (2014-2018)*

This comparison between affordable housing units and ALICE identified households is included to provide context to the supply and demand for affordable housing in Dodge County. Households below the ALICE threshold presumably require access to less expensive housing. However, other households (who are above the ALICE threshold) may also be reliant on less expensive housing options. Households whose annual income is just above the ALICE threshold, and not counted as an ALICE household, will still seek more affordable housing options. Households under the ALICE threshold may also receive additional monetary or

housing assistance, allowing them to live in more expensive housing units. For example, there are programs in place to assist seniors with finding adequate housing. Although there is some ambiguity surrounding the exact number of households who require affordable housing, demand for the most affordable homes (monthly housing payment under \$800) exceeds the current supply of such housing units in Dodge County.

### **ALICE Households in Dodge County**

ALICE provides an idea of which types of households are in the most need of affordable housing by comparing annual incomes to annual necessity expenses, which includes housing. Although the ALICE data does not pinpoint the exact households that lack affordable housing options, it does provide an idea of the type and quantity of households in need of affordable housing.

Looking closely at households with children, the largest concentration of households with children below the ALICE threshold are single-parent, or more specifically single female-headed, households.

<b>Table 20: Dodge County Households with Children</b>			
	Total	Below ALICE Threshold	% Below ALICE Threshold
Married	6,202	622	10.0%
Single Female-Headed	1,674	1,057	63.1%
Single Male-Headed	1,183	489	41.3%

*\*Source: United For ALICE 2018, US Census Bureau*

Looking at the working age population (under 25 – 64 years old), 6,074 households in Dodge County are classified as ALICE. Households in the youngest age group (under 25 years old) and those in the oldest age group (65 years and over) have the highest chance of being classified as ALICE in Dodge County.

<b>Table 21: Dodge County Households by Age</b>			
	Total	Households Below ALICE Threshold	% Below ALICE Threshold
Under 25 Years Old	948	459	48.4%
25-44 Years Old	10,327	2,313	22.4%
45-64 Years Old	14,431	3,302	22.9%
65 and Older	9,515	4,147	43.6%

*\*Source: United For ALICE 2018, US Census Bureau*

## **G. Summary: Current Demand for Single-Family Housing**

Dodge County's housing supply and demand was estimated by examining the months' supply of housing and home values over time.

The Months' supply of housing captures how long the current supply of available homes will remain on the market given the current demand. This rate can be used to determine the speed at which available housing will be depleted from the market. Dodge County has a 0.78 months' supply of housing, which is below the six months typical of market equilibrium (Findwell). As of February 2021, Dodge County has 85 single-family homes for sale. The months' supply of housing analysis is suggestive of a lack of supply for single-family housing in Dodge County.

Home prices have risen in Dodge County. Between 2016-2020, home prices in Dodge County have risen 37% compared to the State of Wisconsin's overall home price growth of 34% over the same time period. The median close price of sold homes in Dodge County is also rising quickly. Over the past year, the median home sale price has risen 12.4%. Quickly rising home values and a low months' supply of housing both coincide with strong demand. Recent data regarding home sales in Dodge County show that the number of home sales and their price continue to follow the nationwide trend of rising home prices. As the sales numbers continue to be elevated, prices are rising. Without rising supply, this will continue to put pressure on the price of housing for the workforce and families.

The findings are mixed displaying some evidence that there is a shortage of single-family housing in Dodge County. Home prices have increased quickly in the last few years and the current inventory of homes on the market is low. In particular, the evidence indicates a more prominent shortage of the types of homes that would be considered the most affordable. Single and cohabiting households below the ALICE threshold may struggle to find affordable housing. Estimates indicate there are 2,023 households under the ALICE Threshold unable to afford adequate housing without forgoing other living necessities or receiving additional monetary assistance. If the analysis is expanded to include all households below the ALICE Threshold, the data suggests that the composition of housing units in Dodge County is currently adequate to provide housing for lower income earners. Furthermore, a homebuyer in Dodge County will find housing affordability to be comparable to the rest of the State of Wisconsin as a whole. While there currently seems to be adequate housing options for lower income earners, the limited housing supply and recent price appreciation may lead to an imbalance in the future.

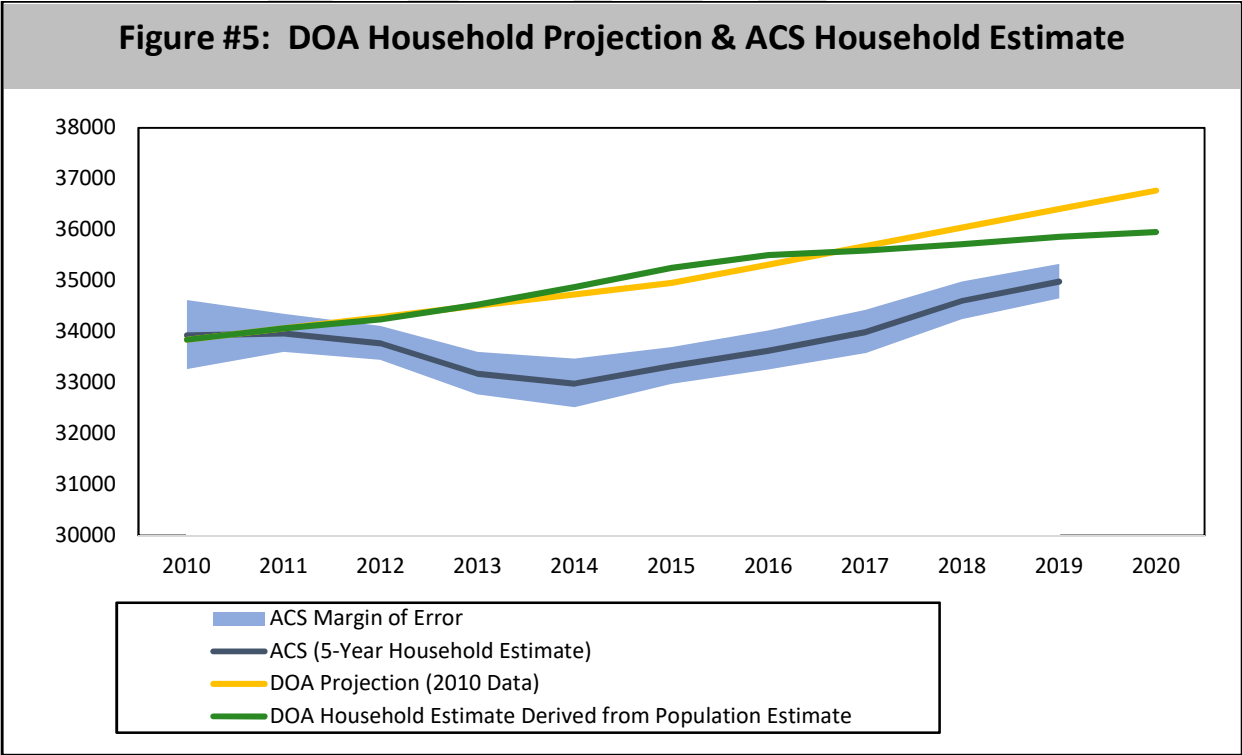
# Part 1.1: Population Projections and the Outlook of Dodge County’s Homeowner Housing Market

As the population and demographics of Dodge County changes, so too will the single-family housing market. The Study compiled various household projections, and completed an in-depth analysis using the Wisconsin Department of Administration projection scenario. Also, the increase in the population of households for recent years was compared to recent housing unit growth rates. Lastly, results from this section are interpreted to provide insight into the recent and future state of the Dodge County single-family housing supply and projected demand.

## A. Household Population Projections

In terms of demand, the Study analyzed household population projections. The estimated population of Dodge County as of January 1, 2020 was 90,005 (according to Wisconsin Department of Administration (DOA) estimates). More important for housing demand and housing needs, however, is the total number of households (i.e. the household population). *Figure #5* shows a comparison of the DOA household estimate, the ACS household estimate, and the DOA household projection. The DOA household projection were developed in 2013 using 2010 Census data by the Wisconsin Department of Administration.

Figure #5: shaded blue area indicates the 90% Margin of Error for the ACS 5-year estimate.



\*Source ACS, DOA



## **DOA Household Projection and ACS Household Estimate Growth**

The ACS growth rates for households in Dodge County over the past ten years have remained below the DOA's household projections. The DOA household growth rates kept pace with the DOA projections from 2010-2016 and then began to diverge. The DOA projected that the number of households in Dodge County would increase 8.6% from 2010 to 2020. According to the ACS household estimates, households have only grown 3.1% from 2010 to 2019. The DOA estimated that household grew 6.3% from 2010-2020. For the purposes of this paper the DOA household estimates will be used to estimate households and household growth.

<b>Table 22: DOA Household Projection &amp; ACS Household Estimate</b>						
<b>Year</b>	<b>ACS - 5-Year Household Estimate</b>	<b>Total % Grown Since 2010</b>	<b>DOA Household Estimate</b>	<b>Total % Grown Since 2010</b>	<b>DOA Projection (2010 Data)</b>	<b>Total Projected Growth in % Since 2010</b>
2010	33,929	-	33,840	-	33,840	-
2011	33,964	0.1%	-	-	-	-
2012	33,766	-0.5%	-	-	-	-
2013	33,173	-2.2%	-	-	-	-
2014	32,979	-2.8%	-	-	-	-
2015	33,322	-1.8%	35,254	4.2%	34,953	3.3%
2016	33,627	-0.9%	-	-	-	-
2017	33,987	0.2%	-	-	-	-
2018	34,605	2.0%	-	-	-	-
2019	34,980	3.1%	-	-	-	-
2020	-	-	35,956	6.3%	36,767	8.6%

*\*Source ACS 5-year estimates, DOA*

## **B. Single-Family Construction and Development**

### **Distribution of Housing Types**

Residential housing can be categorized in three groups: Single-family, Multi-family, and Manufactured Homes. It should be noted that single-family housing can be owner occupied or renter occupied. The American Community Survey defines single-family homes as including fully detached, semi-detached (semi-attached, side-by-side), and row houses. Detached homes are not connected to another housing unit and have open space on all four sides of the structure. Attached homes are adjoined through a least one common ground to roof wall and include housing such as townhouses, double houses, or houses attached to a nonresidential structure. In *Table 23*, attached single-family housing units are separated from detached single-family housing units.

The American Community Survey classifies single-family structures as units that:

- Are separated by a ground-to-roof wall
- Have a separate heating system
- Have individual meters for public utilities
- Have no units located above or below

If each unit within the building does not meet the conditions above, the building is considered multi-family. Multi-family housing is defined as units in structures containing two or more apartments.

<b>Table 23: Dodge County Percentage of Housing by Units</b>		
<b>Type of Housing</b>	<b>Quantity of Units</b>	<b>% of Total Units</b>
Total Housing Units	37,805	100%
<b>Single-Family Housing</b>		
One-Unit, Detached	26,722	70.7%
One-Unit, Attached	1,377	3.6%
Total Single-Family Housing	28,099	74.3%
<b>Multi-Family Housing</b>		
Two Units	2,094	5.5%
Three - Four Units	980	2.6%
Five Or More Units	5075	13.4%
Total Multi-Family Housing	8,149	21.6%
Manufactured Home	1,557	4.1%

*\*American Community Survey 5-year (2015-2019) estimates*

### **Owner-Occupied and Renter Housing Distribution**

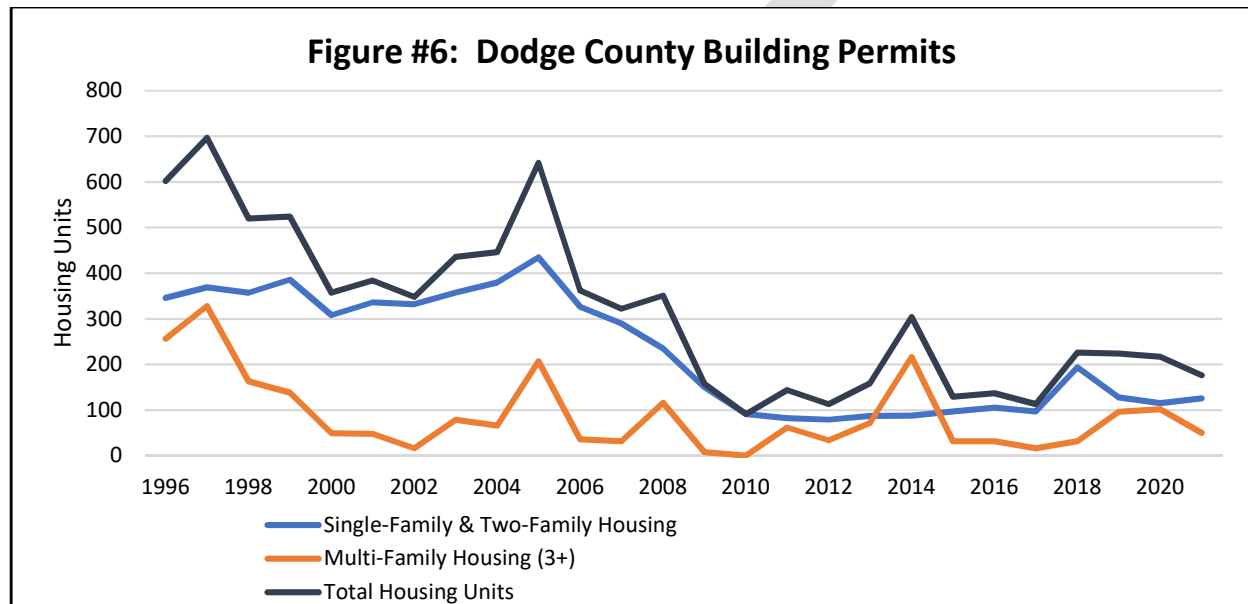
Owner-occupied homes are classified by the American Community Survey as housing units where the owner lives in the unit. The unit may have a mortgage, loan, or other debt arrangement. The unit is also considered owner-occupied if it resides on leased land, but the occupant has a mortgage on the unit. Manufactured homes with a loan balance are also included in this category. Renter-occupied units encompass any housing units not considered owner-occupied. Renter-occupied unit counts include continuing care or life care arrangements where a health services provider assists with shelter and other necessities.

<b>Table 24: Dodge County Occupied Housing Units</b>			
	Household Estimate	Margin of Error	% of Occupied Housing
Occupied housing units	34,980	±351	100%
Owner-occupied	24,396	±429	69.7%
Renter-occupied	10,584	±500	30.3%

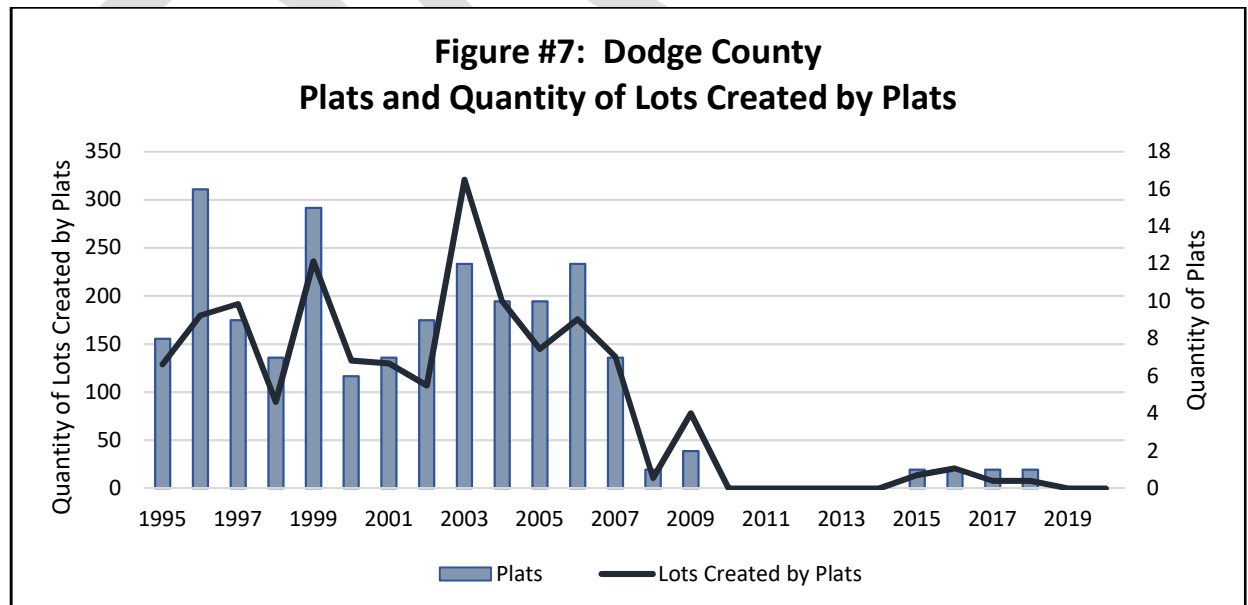
*\*American Community Survey 5-year (2015-2019) estimates*

## Platted Lots and Building Permits Over Time

While Dodge County's construction rates declined during the 2007-2009 recession, there has been a slow increase since 2011. Construction rates, however, have not returned to pre-recession levels. As measured by building permits, the number of housing units planned for 2020 construction (176 units) was still only around half the number of housing units planned for construction in either 2001 or 1999 (which had 348 and 357 units, respectively); the lowest rates of construction prior to 2006. Similar trends are apparent when looking only at permits for single-family and two-family homes. This trend is also reflected in both the number of subdivision plats and the number of lots created by subdivision plats within Dodge County.



Source: State of the Cities Data Systems (SOCDS) Building Permits Database, Census Bureau Building Permits Survey



Source: Wisconsin Department of Administration, Subdivision Plats

### **Household Trends Compared to Lots and Building Permits**

The average increase in households per year over the past five years has remained on average below the number of building permits issued. However, the full picture of current household growth and building permit trends may be misinterpreted if only the past five years are considered. If household growth and building permits are compared over the last ten years (2010-2020) the number of building permits issued appear to be below the demand for new homes. The DOA estimates that the number of households in Dodge County increased by 2,116 from 2010-2020 and the number of building permits issued during that period equals 1,942. Note that building permits can overestimate new housing starts and do not reflect housing unit demolition rates. If household growth rates continue their current trajectory, the current rate of new construction would be inadequate to meet demand.

<b>Table 25: Dodge County Households, Lots, Building Permits</b>			
	Average Household Increase Per Year Over Last 5 Years	Number of Lots Created by Plats	Number of Building Permits Issued
2016	140	21	113
2017	140	8	226
2018	140	8	224
2019	140	0	217
2020	140	0	176

*\*Source: American Community Survey 5-year estimates, Wisconsin Department of Administration, State of the Cities Data Systems (SOCDS) Building Permits Database, Census Bureau Building Permits Survey*

## **Housing Built Since 2010**

Worth noting is actual new housing construction over the past ten years. The American Community Survey collects data on the year a housing unit is built. The data is collected for both occupied and vacant housing units. Year built refers to when the building was first built and does not record remodeling, additions, or building conversions. It should be noted that the data has limitations since questioner respondents must rely on their memory or on estimations based on when the housing around them was built. Therefore, year-to-year estimates tend to have a wide margin of error. However, this data serves as an approximation of new construction. The ACS's five-year estimation helps to smooth out some of the variation year-to-year. As seen in *Table 26*, the five-year (2015-2019) estimate indicates 1,388 housing units have been built since 2010 and the one-year (2019) estimate indicates 2,291 housing units have been built.

The DOA housing data which includes an estimate for the year 2020 is also included. The DOA estimates housing units based on census data and analysis of contemporary data. From 2010-2020 the DOA estimated that the number of housing units in Dodge County grew by 1,548 units.

<b>Table 26: Dodge County Housing Construction Since 2010</b>			
	Housing Units Built 2010-2013	Housing Units Built 2014-2019	Total Units Built 2010-2019
ACS 5-Year Estimate	827	561	1,388
ACS 1-Year Estimate <i>(high margin of error)</i>	804	1,487	2,291
	Housing Units Built 2010-2013	Housing Units Built 2014-2020	Total Units Built 2010-2020
DOA	584	964	1,548

*\*Source: ACS 5-Year Estimate (2015-2019), ACS 1-Year Estimate (2019), DOA (2020)*

## **Comparing Housing Unit Construction and Household Growth**

The Department of Administration estimates that from January 01, 2010 through January 01, 2020 the number of households in Dodge County increased by 2,116. This household growth provides an estimation for the increase in housing demand in Dodge County.

<b>Table 27: Dodge County Household Growth Since 2010</b>		
Total Households in 2010	Total Households in 2020	Household Growth 2010-2020
33,840	35,956	2,116

*\*Source: ACS 5-Year Estimates, DOA*

By comparing the number of new housing units built since 2010 to the household growth during this period it becomes evident that the supply of new housing falls short of the increase in demand for housing in Dodge County. Both the five-year ACS new housing unit estimates and the DOA estimate are below the DOA estimate for the increase of households in Dodge County since 2010. The one-year ACS new housing unit estimate suggest that housing unit growth has kept pace with household growth; however, this estimate has a high margin of error, and the estimate does not match recent building permit trends. Additionally, it is critical to recognize the limited number of “for sale” properties on the market.

<b>Table 28: Dodge County Household and Housing Units (5-Year ACS)</b>		
Housing Units Built 2010-2019	Household Growth 2010-2019 DOA Estimate	Housing Unit Shortage
1,388	2,017	<b>(629)</b>

*\*Source: ACS 5-Year Estimate (2015-2019), DOA*

<b>Table 28.1: Dodge County Household and Housing Units (1-Year ACS)</b>		
Housing Units Built 2010-2019	Household Growth 2010-2019 DOA Estimate	Housing Unit Surplus
2,291	2,017	<b>274</b>

*\*ACS 1-Year Estimate (2019), DOA*

<b>Table 29: Dodge County Household and Housing Units (DOA)</b>		
Housing Unit Built between 4/2010 - 4/2020	Household Growth 2010-2020 DOA Estimate	Housing Unit Shortage
1,548	2,116	<b>(568)</b>

*\*Source: DOA*

## C. Estimated & Projected Number of Homeowner Households

As presented in *Table 30*, the projections for the total number of households in Dodge County constructed by the DOA in 2013 (which used 2010 census data) overestimated the actual increase in the number of households over recent years. Both the ACS household estimate and the DOA household estimate fall below the DOA projection. *Table 30* highlights the differences between the DOA and ACS household estimates. The DOA estimate remained fairly close to the DOA projection during the first half of the 2010 decade before diverging. The ACS estimate quickly diverged from the DOA projection in the first half of the 2010 decade and seemed to correct slightly during the second half of the decade. The projection from DOA for the increase in total number of households has been outside the 90% margin of error of the ACS estimates since 2011. Due to the large variation between household projections and estimates, the study analyzed several possibilities for household growth over the next ten years.

<b>Table 30: Dodge County Household and Housing Unit Growth Compared</b>						
	ACS Household Estimated Growth		DOA Household Estimate		DOA Projected Household Growth	
	Average Change Year Over Year	Average % Change Year Over Year	Average Change Year Over Year	Average % Change Year Over Year	Average Change Year Over Year	Average % Change Year Over Year
2011-2015	-121	-0.36%	283	0.82%	223	0.65%
2016-2020	415	1.22%	140	0.40%	363	1.01%
2021-2025	-	-	-	-	341	0.91%
2026-2030	-	-	-	-	288	0.73%

*\*Source: DOA and ACS 5-year estimate*

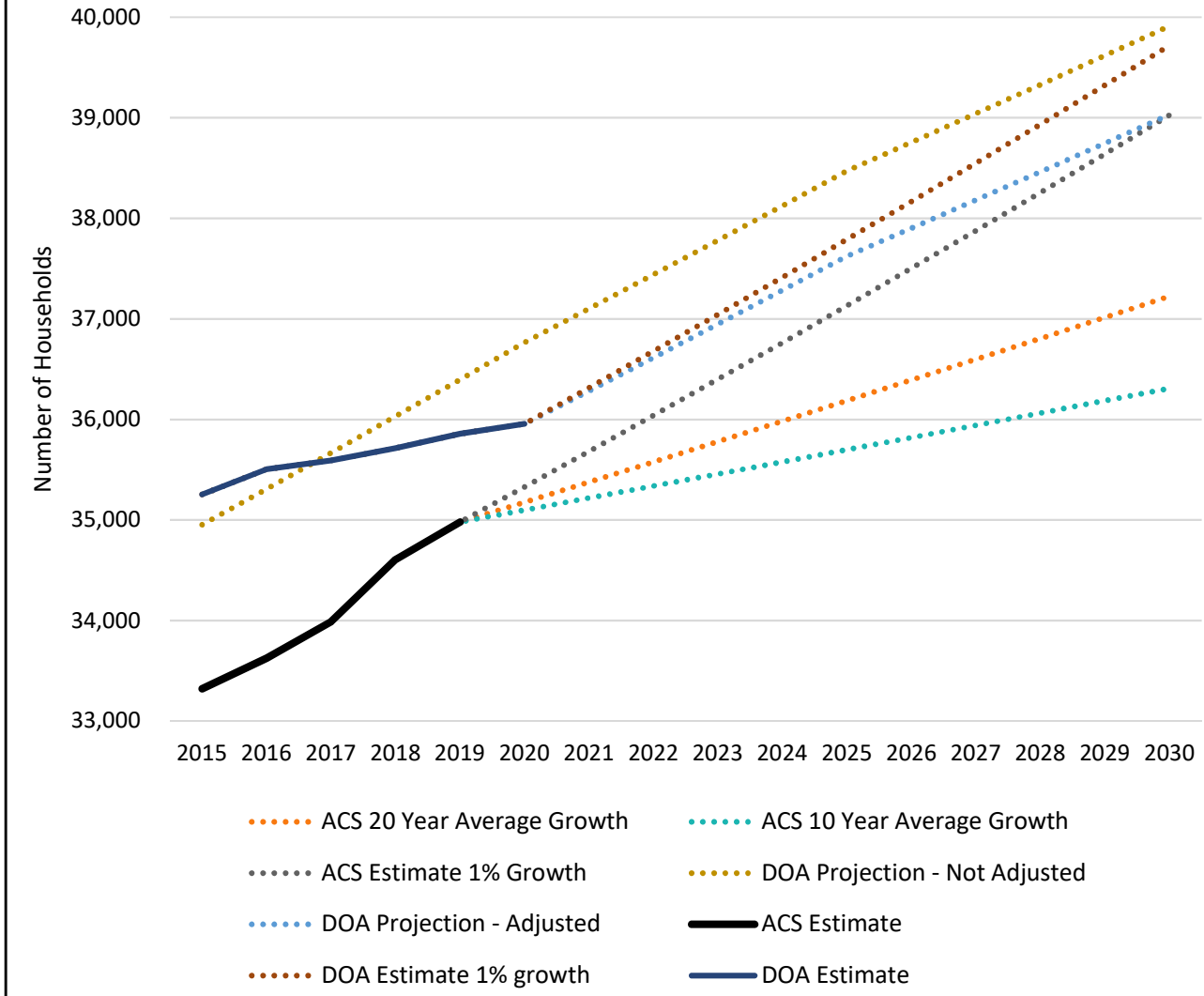


## **Household Growth Rate Projections**

The FERC calculated several potential household growth rates using data from the ACS and DOA recorded household estimates and the DOA household projection. The growth rates were then compounded year-over-year to demonstrate different scenarios for Dodge County's household growth through 2030.

- **ACS 20 Year Average Growth**: The average household growth per year over the past twenty years was calculated using ACS household estimates. Over the past twenty years, the quantity of households grew on average 0.57% year-over-year.
- **ACS 10 Year Average Growth**: The average household growth per year over the past ten years was calculated using ACS household estimates. Over the past ten years, the quantity of households grew on average 0.34% year-over-year.
- **1% Growth**: A constant 1% increase in households year-over-year which can be used as a reference. A 1% year-over-year growth rate was applied to both the ACS and DOA household estimates.
- **DOA Projection – Not Adjusted**: The original projection calculated by the DOA in 2013 using 2010 data.
- **DOA Projection – Adjusted**: The household growth rates from the original DOA projection calculated in 2013 were applied to the current estimate for the number of households in Dodge County according to the DOA estimates.
- **ACS Estimate**: Household estimate recorded by the American Community Survey.
- **DOA Estimate**: Household estimate recorded by the Department of Administration.

**Figure #8: Dodge County Household Projections**



\*Source: DOA and ACS 5-year estimates  
 \*\* Growth Rates are compounded year-over-year

### **Future Renter vs Owner-Occupied Unit Composition Demand**

The different household projections were used to calculate the average increase of households per year over the next five and ten years. Using the ACS (2015-2019) estimate of a 69.7% owner-occupied household rate, estimates for the increase in homeowner vs. renter households were completed. This estimate assumes that the owner-occupied household rate (69.7%) in Dodge County will not change significantly in the future. The owner-occupied household rate is the current percentage of all homes in Dodge County classified as owner-occupied. As mentioned earlier, the ACS classifies any unit where the owner lives in the unit as owner-occupied. Owner-occupied units may have a debt arrangement and includes units with a mortgage on leased land. Owner-occupied units therefore may be detached, attached, condos, townhomes, or manufactured homes.

### **Household Projections (2025)**

*WISDOA Projection:* The estimated difference between the number of households in 2025 and 2020 is calculated to be 1,706 households, according to the Wisconsin Department of Administration for Dodge County. This corresponds to about a 1,189 increase in the number of homeowner households from 2020 to 2025 (the majority of the rest are renter households).

<b>Table 31: 2020-2025 Homeowner &amp; Renter Household Projection</b>				
	Total Household Increase	Average Household Growth Per Year	Projected Increase in the Number of Homeowner Households Per Year	Projected Increase in the Number of Renter Households Per Year
ACS 20 Year Average Growth	1,009	202	141	61
ACS 10 Year Average Growth	600	120	84	36
ACS Estimate 1% Growth	1,802	360	251	109
DOA Projection - Not Adjusted	1,706	341	238	103
DOA Projection - Adjusted	1,668	334	233	101
DOA Estimate 1% Growth	1,834	367	256	111

*\*Source: DOA and ACS 5-year estimate*

*\*\*Calculated using the American Community Survey (2015-2019) estimate of a 69.74% owner occupied household rate. It therefore assumes an owner-occupied household rate that does not change significantly in the future.*

**Household Projections (2030)**

*WISDOA Projection:* The estimated difference between the number of households in 2030 and 2020 is calculated to be 3,145 households, according to the Wisconsin Department of Administration for Dodge County. This corresponds to about a 2,192 homeowner household population increase from 2020 to 2030 (the majority of the rest are renter households).

<b>Table 32: 2020-2030 Homeowner &amp; Renter Household Projection</b>				
	Total Household Increase	Average Household Growth Per Year	Projected Increase in the Number of Homeowner Households Per Year	Projected Increase in the Number of Renter Households Per Year
ACS 20 Year Average Growth	2,046	205	143	62
ACS 10 Year Average Growth	1,210	121	84	37
ACS Estimate 1% Growth	3,696	370	258	112
DOA Projection - Not Adjusted	3,145	315	219	95
DOA Projection - Adjusted	3,076	308	214	93
DOA Estimate 1% Growth	3,762	376	262	114

*\*Source: DOA and ACS 5-year estimate*

*\*\*Calculated using the American Community Survey (2015-2019) estimate of a 70.2% owner occupied household rate. It therefore assumes an owner-occupied household rate that does not change significantly in the future.*

### Current Construction Rates Compared to Household Projections

Returning to the post 2010 construction rates, the current pace of new housing unit construction will be unable to meet the DOA projected increase in new households. Assuming that new housing unit construction rates will remain relatively constant over the next ten years, the current housing shortage in Dodge County will be compounded. Looking at the DOA household projection, the current rate of construction will be 1,597 housing units short of meeting future demand.

Table 33: Dodge County Housing Construction and Projected Households		
Total Housing Units Built 2010 – 2020*	DOA Projected Household Growth 2020-2030	Projected Housing Shortage if Construction Rates Remain Unchanged
1,548	3,145	<b>(1,597)</b>

\*The DOA 2020 housing unit growth estimate is used since it closely resembles building permit rates and includes 2020 data.  
 \*\*Source: DOA

Adapting the data to more conservative household growth projection estimates, the current rate of construction is adequate to meet future housing demand. The American Community Survey (ACS) recent household estimates suggest the number of households in Dodge County has grown slower than the DOA projection. The ACS is conducted by the Census Bureau each year gathering demographic data by surveying about 3.5 million housing units. If the current household growth rate as suggest by the ACS data were to remain unchanged over the next ten years, and housing unit construction remain at similar rates, Dodge County would see a slight surplus of housing units built from 2020 – 2030. The ACS 10 Year Average Growth Projection indicates the number of households will increase by 1,210 between 2020-2030, while the number of new housing units built between 2010-2020 is equal to 1,548.

Table 34: Dodge County Housing Construction and Projected Households		
Total Housing Units Built 2010 - 2020*	ACS 10 Year Average Growth Projected Household Growth 2020-2030	Projected Housing Surplus if Construction Rates Remain Unchanged
1,548	1,210	<b>338</b>

\*The DOA 2020 housing unit growth estimate is used since it closely resembles building permit rates and includes 2020 data.  
 \*\*Source: DOA, ACS 5-year estimates

While the most conservative estimates of household projections and current construction rates of new housing units are sufficient to meet the projected needs, other measures predict a shortage. As a result, careful monitoring can assess changes. In addition, the declining inventory of “for sale” properties positions the County on the verge of a potential shortage, should demand increase. Recent building permit records indicate that construction rates have

been increasing slightly over the past five years but remain inadequate to keep pace with recent low household growth rates. New plats and lots created by plats remain suppressed and have not recovered since the 2007-2009 recession. If household growth rates begin to increase in the next few years to be closer to the DOA's household projections, the current new housing construction rate will be quickly surpassed. The outlook indicates that home prices will continue to rise and the number of homes available for-sale on the market will continue to decrease. Buyers will have very little bargaining power which will further exacerbate the issues of supplying adequate workforce housing, especially housing for Asset Limited, Income Constrained, Employed (ALICE) Households.

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## Part 2: Analysis of Rental-Occupied Housing

Part two of the report examines rental-occupied housing consisting of any household that is not owned by the residents.

### A. Number of Rental-Occupied Households

Table 35 exhibits the outlook of total rental-occupied households from 2015 to 2019. One of the challenges of the ACS is the sampling methodology which can result in large fluctuations of the data. As seen in *Table 35*, the ACS estimates suggest that the number of renting households in Dodge County increased by 1,365 over the past five years. This may be due to changes the ACS's sampling methodology. The sample numbers create an uncertain picture of the number of rental-occupied households. However, when combined with building permits, this analysis uses a level of renters at around 9,500 households. Referring back to the building permits in Dodge County (Figures #6 and #7), Dodge County has witnessed a slow increase in building permits. Breaking it down further, in 2019 only three 3- or 4-unit and twelve 5+ unit permits issued for the year. In 2020 there were again three 3- or 4-unit permits issued, and six 5+ unit permits. In general, the supply side of the equation for rental-occupied housing seems rather low, but there does not seem to be too much surge in demand either based on population estimates.

Table 35: Dodge County Rental-Occupied Households	
Year	Households
2015	9,219
2016	9,636
2017	10,074
2018	10,472
2019	10,584

*\*source: ACS 5-year estimates*

## B. Median Gross Rent

Median gross rents have trended upwards since 2013. Median rental prices for Dodge County have appreciated at a slower pace to Wisconsin as a whole (Table 36). The total percent appreciation estimate demonstrates a 6.4% increase in the median gross rent for Dodge County from 2015 to 2019.

Table 36: Dodge County Median Gross Rent						
Year	Dodge County			Wisconsin		
	Median	Yearly Increase	Total % Rent Appreciation Since 2010	Median	Yearly Increase	Total % Rent Appreciation Since 2010
2015	\$761	-	-	\$776	-	-
2016	\$770	1.2%	1.2%	\$789	1.7%	1.7%
2017	\$769	-0.1%	1.1%	\$813	3.0%	4.8%
2018	\$799	3.9%	5.0%	\$837	3.0%	7.9%
2019	\$810	1.4%	6.4%	\$856	2.3%	10.3%

\*source: ACS 5-year (2015-2019) estimate

As median gross rent has increased, so too has rental-occupied household median income. Table 37 below shows the changes in rental-occupied median household income year-by-year from 2015 to 2019. By 2019, the median income has risen faster than rent, and while Rental Occupied Median Household Income remains above the rest of Wisconsin it is growing at a slower rate in Dodge County. Rental Occupied Median Household Income in Wisconsin grew by 19.04% since 2015 and currently sits at \$36,712 in 2019 (compared to 14.55% and \$38,133 respectively in Dodge County). Once again, the limitations of the ACS data are recognized—however, there appears to have been a rise in household incomes over the five-year period.

Table 37: Dodge County Rental-Occupied Median Household Income			
Year	Median	Yearly Increase	Total % Increase Since 2015
2015	\$33,288	-	-
2016	\$33,995	2.12%	2.12%
2017	\$35,622	4.79%	7.01%
2018	\$36,872	3.51%	10.77%
2019	\$38,133	3.42%	14.55%

\*source: ACS 5-year estimates



## C. Affordability of Rental-Occupied Housing

As a percentage of household income, rental costs in Dodge County are more affordable than the State of Wisconsin as a whole. This indicates that there are more affordable options for rental housing in Dodge County compared to the entirety of WI.

According to the U.S. Department of Housing and Urban Development (HUD), housing is considered affordable to a household if housing costs are 30% or less of the household's income. Using this standard, the percentage of renter-occupied housing in Dodge County that is considered affordable using this standard is 61.2% as compared to 56.0% for the State of Wisconsin. Households that must spend more than 30% of their income on housing costs, may be using other forms of assistance to meet basic needs. In Dodge County there are 3,875 renter households spending 30% or more of household income on housing costs.

**Table 38: Dodge County Rent Payments as a Percentage of Household Income**

	Estimate Number of Renter Households Spending X% of Income on Housing	Dodge County households in %	State of WI households in %
Occupied Units Paying Rent*	9,997	100%	-
Less than 15.0 percent of Household Income is Spent on Housing Costs	1,978	19.79%	16.34%
15.0 to 19.9 percent	1,565	15.65%	14.75%
20.0 to 24.9 percent	1,481	14.81%	13.48%
25.0 to 29.9 percent	1,098	10.98%	11.43%
30.0 to 34.9 percent	777	7.77%	8.53%
35.0 percent or more	3,098	30.99%	35.47%

\*excluding 587 units where ACS could not compute Gross Rent as a Percentage of Household Income

\*\*source: ACS 5-year estimate (2015-2019)

The ACS median household income level for all households living in Dodge County in 2019 is reported as \$60,654, while the median income of households living in renter-occupied homes is \$38,133. Using HUD affordable housing metric, which assumes housing is affordable to its occupants if costs are 30% or less than income, a household earning around the median income of \$60,654 can spend up to \$1,516 per month on housing without experiencing housing expense stress. Likewise, a household earning the median renter-occupied household income of \$38,133 can spend up to \$953 on rent for their housing costs to be considered affordable. HUD compiles data on household income levels on a county level. With the above data, 38.8% of rental-occupied households (3,875 households) are currently living over the benchmark for affordable housing set by HUD. The following *tables 39-41* clearly indicate that the lowest income earning households are spending the highest percent of their income on housing.

**Table 39: Dodge County Renter-Occupied Household Spending on Housing**

Yearly Income	Total Rent-Occupied Households	Number of Households Spending More Than 30% of Average Monthly Income on Housing Costs	Number of Households Spending More Than 20% of Average Monthly Income on Housing Costs
Less than \$20,000	2,291	2,020	2,212
\$20,000 to \$34,999	2,198	1,441	2,034
\$35,000 to \$49,999	2,051	404	1,514
\$50,000 to \$74,999	1,741	10	594
\$75,000 or more	1,716	0	100
Total	9,997	3,875	6,454

\*Zero or negative income: = 1.1%

\*\*Calculated using American Community Survey (2015-2019) data

**Table 40: Dodge County Gross Rent of Occupied Units**

	Estimate	% of Total Units Paying Rent
Median (dollars)	\$810	-
Occupied units paying rent	10,115	100%
Less than \$500	823	8.14%
\$500 to \$999	6,484	64.10%
\$1,000 to \$1,499	2,266	22.40%
\$1,500 to \$1,999	194	1.92%
\$2,000 to \$2,499	6	0.06%
\$2,500 to \$2,999	9	0.09%
\$3,000 or more	47	0.46%

\*source: ACS 5-year (2015-2019) estimate

<b>Table 41: Dodge County Renter-Occupied Housing Costs by Income Bracket</b>			
<b>Yearly Income</b>	<b>% of Renter-Occupied Households in Income Bracket</b>	<b>Monthly Housing Costs as a Percentage of Average Monthly Income</b>	<b>% of Renter-Occupied Households for Specified Housing Cost</b>
<b>Less than \$20,000</b>	18.3%	Housing Costs are Less Than 20 Percent of Income	3%
		Housing Costs are 20 to 29 Percent of Income	8%
		Housing Costs are 30 Percent or More of Income	88%
<b>\$20,000 to \$34,999</b>	24.5%	Housing Costs are Less Than 20 Percent of Income	7%
		Housing Costs are 20 to 29 Percent of Income	27%
		Housing Costs are 30 Percent or More of Income	65%
<b>\$35,000 to \$49,999</b>	16.3%	Housing Costs are Less Than 20 Percent of Income	26%
		Housing Costs are 20 to 29 Percent of Income	54%
		Housing Costs are 30 Percent or More of Income	20%
<b>\$50,000 to \$74,999</b>	17.0%	Housing Costs are Less Than 20 Percent of Income	66%
		Housing Costs are 20 to 29 Percent of Income	34%
		Housing Costs are 30 Percent or More of Income	1%
<b>\$75,000 or more</b>	17.7%	Housing Costs are Less Than 20 Percent of Income	94%
		Housing Costs are 20 to 29 Percent of Income	6%
		Housing Costs are 30 Percent or More of Income	0%
<b>No Cash Rent</b>	4.7%	-	-

\*Zero or negative income: = 1.1%

\*\*Calculated using American Community Survey (2015-2019) data

Tables 39-41 indicate that rental-occupied households with less than \$50,000 in income have limited rental resources. Also, 59.1% of rental-occupied households fall under that \$50,000 income mark, representing a large share of the rental market in Dodge County. Furthermore, the majority (86.5%) of rent prices fall within the \$500-1,500 range. The demographics struggling the most with affordable housing options are those rental households earning less than \$20,000, of which 88% spend more than 30% of their income on housing costs, and those earning between \$20,000 and \$34,999, of which 65% are spending more than 30% of their income on housing costs.

Based on the slow building permit trends in Dodge County and in combination with the number of renters in lower income brackets paying more than what is considered affordable, there may be an opportunity in the rental market to offer lower cost units to households earning less than \$50,000. However, on its face, the data further suggests that the population of Dodge County has increased slowly since 2010, indicating a low influx of demand.

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# Part 3: Municipalities Within Dodge County

## Methodology & Section Overview

For fourteen municipalities within Dodge County, measures similar to those used in the county-wide section are analyzed to determine the state of the housing market. The municipalities analyzed are the Cities of Beaver Dam, Fox Lake, Horicon, Juneau, Mayville, Watertown, and Waupun. In addition, the Villages of Brownsville, Hustisford, Lomira, and Theresa and the Townships of Ashippun, Beaver Dam, and Fox Lake are analyzed. While a number of these communities occupy more than one county, the entire municipality boundary area is included in this analysis.

Specifically, for each municipality, the following metrics are calculated and interpreted where appropriate:

1. Median home sale price over time
2. Current months' supply of housing
3. Household Income
4. Gross Rent and Rent affordability
5. Housing affordability (ALICE)
6. Projected household and housing unit growth

Please keep in mind the smaller sample sizes of municipalities compared to the County. Measures on a municipality level are more limited and have wider margin of error. Interpretation of metrics are included where possible.

### Measures

#### *Home Sale Price*

Home price appreciation for municipalities is calculated using home sale data from the Wisconsin Department of Revenue which records real estate transfers. The median home sale prices for the last five years are also calculated using the home sales records. This data is narrow capturing actual single-family home sales within a given time period. The municipalities' median home prices are then compared to Dodge County median home prices. Unlike Dodge County, the sample size of homes sold in a year is much smaller for the municipalities and, therefore, the estimate of the median home price is more sensitive to random variation in the sample from year to year.

#### *Months' Inventory*

The Months' Supply of Housing is important for estimating housing demand because it provides insight on the rate at which houses are selling, compared to the unused supply of homes. The Months' Supply of Housing is calculated by taking the number of for-sale homes and dividing it by the number of sales per month over a certain period (in this case 1 year). This metric can also be reframed as the Absorption Rate, which just describes the percent of the existing for-sale homes that would be sold in 1 month if homes continued to sell at the same rate (e.g., a 3 months' supply of housing corresponds to a 33.3% absorption rate, as 1 month supply/3 months' supply = 33% sold in a single month).

The Average # of Homes for Sale figure is recorded on a zip code basis while home sales are recorded based on municipality boundaries. Zip codes often do not correspond to jurisdiction boundaries, and in Dodge County's case, can extend beyond jurisdiction boundaries. Therefore, the Average # of Homes for Sale metric may be slightly overstated for each municipality. This would result in an overestimate of the inventory.

#### *Household Income*

Using data from the U.S. Census Bureau's American Community Survey (ACS), the distribution of household income is analyzed for each municipality.

The historical and projected trends of the distribution of household income is also analyzed. However, due to the small sample sizes of available data, the historical and projected trends should be taken as very rough estimates.

#### *Gross Rent*

Using data from the American Community Survey, the cost of rent for each municipality is analyzed by looking at the distribution of Gross Rent across 5 price brackets. In other words, what proportion of all renter-occupied units had a Gross Rent of less than \$500, what proportion of all renter-occupied housing units had a Gross Rent between \$500 and \$999, and so on for other price brackets.

For each City and Village, the distribution of gross rent is estimated for the five-year time period of 2010-2014 as well as the five-year time period of 2015-2019. The change in the distribution of gross rent between these two time periods is compared.

#### *Gross Rent as a Percentage of Household Income*

Similar to the method used for Dodge County as a whole, the affordability of rent for each municipality is analyzed by looking at the proportion of renter households that pay less than 15% of their household income towards rent, the proportion of renter households that pay between 15% and 19% of their household income towards rent, and so on for additional affordability brackets.

For Each City and Village, the distribution of gross rent is estimated for the five-year time period of 2010-2014 as well as the five-year time period of 2015-2019. The change in the distribution of gross rent as a percentage of household income between these two time periods is compared for these municipalities.

#### *United For ALICE Households*

In addition to looking at gross rent as a percentage of income, the number of ALICE, or Assist Limited, Income Constrained, Employed, households in each municipality were also analyzed. United For ALICE data takes into consideration the cost of living in different states, counties, and municipalities providing further insight into households' ability to afford housing in each municipality. Based upon the cost of living, ALICE compiles a survival budget which estimates the annual income required to afford the most basic of living expenses including housing. For example, a household with two adults and two school aged children require a minimum annual income of \$55,212 to afford housing and other basic living necessities.

In the ALICE Survival budget, single adult households are allocated \$566 to spend on monthly housing costs, cohabiting adults are allocated \$570, and households with children are allocated \$758. These numbers come from the 2018 Housing and Urban Development's fair market renter pricing for efficient, single-bedroom, and two-bedroom apartments. Households are

designated as ALICE if they fall below the ALICE Threshold, but are above the Federal poverty line. Households with income that falls below the threshold set by the ALICE survival budget will either be unable to afford these fair market housing prices and require housing with lower monthly costs, will need to forgo other necessities to afford housing, or will need additional monetary support.

The most recent ALICE report for Wisconsin was completed in 2020 and made use of 2018 Census data.

#### *Projected Household and Housing Unit Growth*

The projected increase in households between 2020 and 2030 was compared to current new housing construction rates for each of the municipalities. The DOA's household projections were used to estimate household growth over the next ten years. To estimate recent construction rates, the ACS's estimates for the number of new housing units built in each municipality since 2010 were used. Keep in mind that due to the smaller sample sizes, the municipality projections tend to have wide margin of errors.

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## A. City of Beaver Dam

### Home Sale Price

The City of Beaver Dam witnessed a 35.3% increase in the median single-family home sale price from 2016 to 2020. Home values appreciated in City of Beaver Dam at a similar rate compared to Dodge County as a whole. However, as with all of the data contained in the community analysis, caution needs to be considered as the size of the number of sales (and other items) can be quite small.

Year	Median Home Price	Increase from Previous Year	Total % Appreciation Since 2016
2016	\$112,800	-	-
2017	\$119,900	6.3%	6.3%
2018	\$124,700	4.0%	10.6%
2019	\$138,000	10.7%	22.3%
2020	\$152,650	10.6%	35.3%

*\*Source: Wisconsin Department of Revenue*

Year	Median Home Price	Increase from Previous Year	Total % Appreciation Since 2016
2016	\$129,000	-	-
2017	\$139,900	8.4%	8.4%
2018	\$142,000	1.5%	10.1%
2019	\$156,000	9.9%	20.9%
2020	\$171,500	9.9%	32.9%

*\*Source: Wisconsin Department of Revenue*

### Months' Inventory

The data indicates that homes in the City of Beaver Dam are selling quickly. The City of Beaver Dam has a months' supply of housing of 1.46. Six months of supply is considered the optimal months' supply in a balanced market. The City of Beaver Dam is below this threshold.

	Homes Sold	Months	Average # of Homes Sold Per Month	Average # of Homes Available to be Sold	Months' Supply of Housing	Absorption Rate
2016	205	12	17.1	102	5.99	16.7%
2017	294	12	24.5	69	2.83	35.3%
2018	266	12	22.2	64	2.89	34.6%
2019	252	12	21.0	67	3.19	31.4%
2020	264	12	22.0	32	1.46	68.4%

*\*Source: Realtor.com and Wisconsin Department of Revenue*



### Building Permits

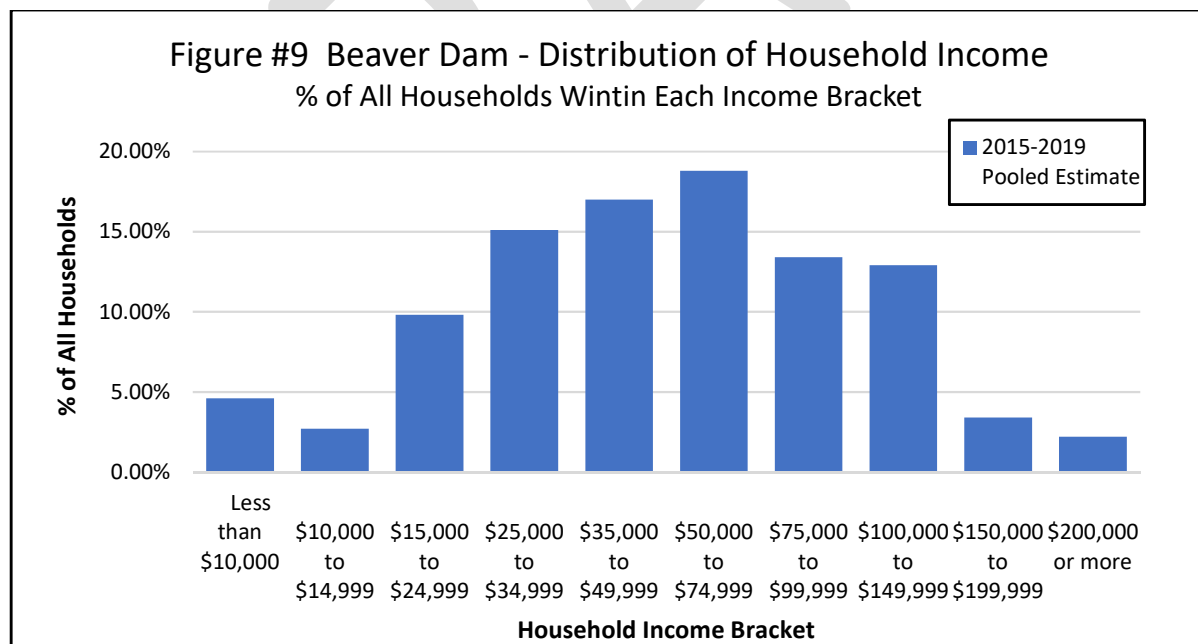
Building permits are recorded by the US Census for each municipality. In 2020, 41 total units were authorized by building permits in Beaver Dam.

Table 45: Beaver Dam Building Permits			
Year	Single-Family + Two-Family Total Units	Multifamily (3+) Total Units	Total Units Authorized by Permits
2014	13	32	45
2015	7	32	39
2016	5	16	21
2017	8	32	40
2018	7	60	67
2019	3	54	57
2020	9	32	41

\*Source: US Census Building Permits Survey

### Household Income

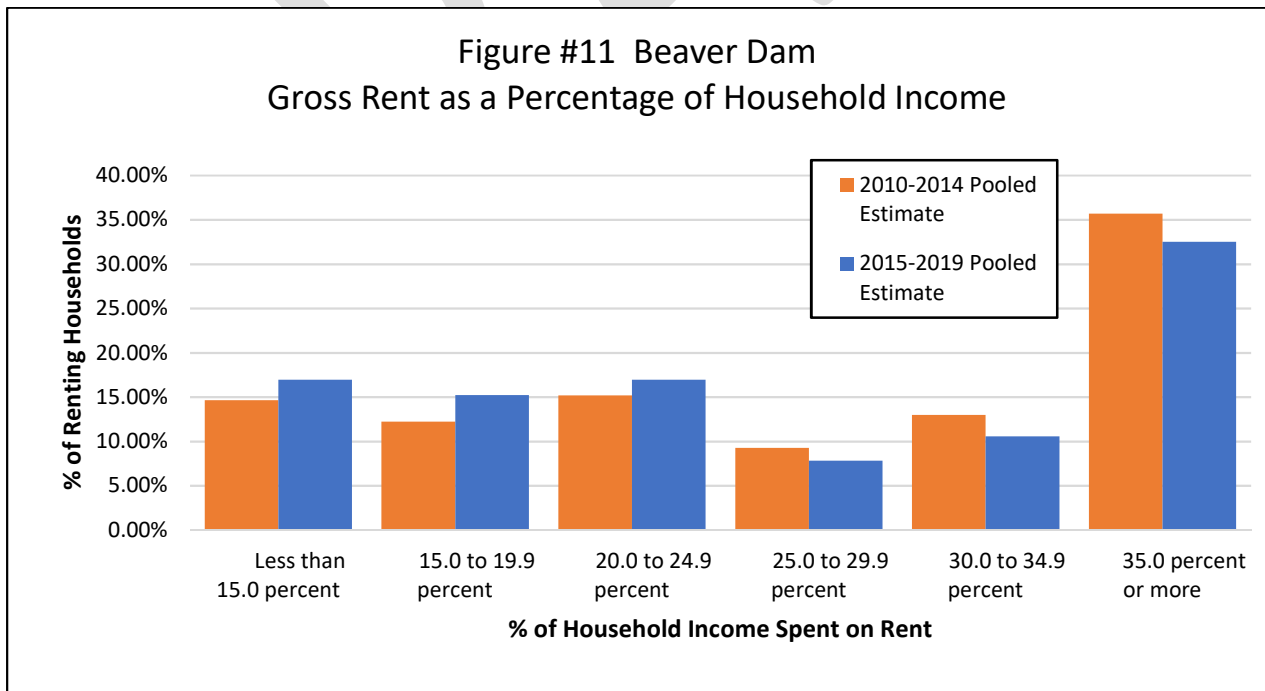
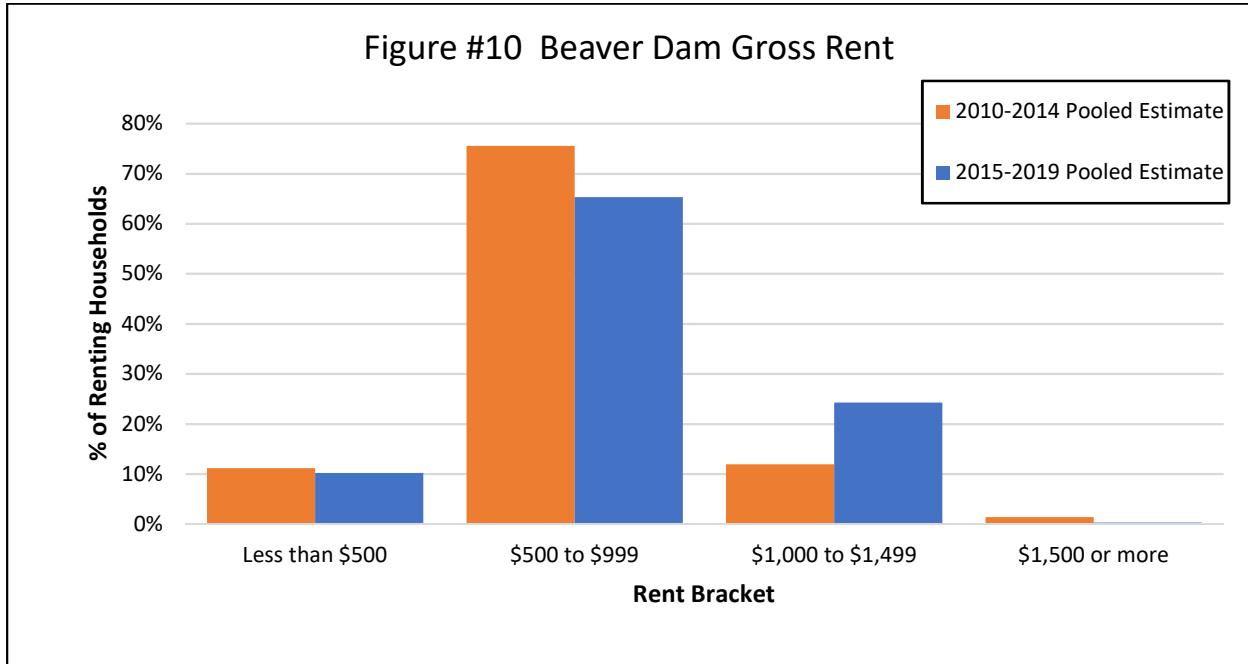
The distribution of household income for the City of Beaver Dam is shown below. Household income in an area has important implications for affordability of housing, both for renter households and homeowner households.



source: ACS 5-year estimates

### Gross Rent & Gross Rent as a Percentage of Household Income

The distribution of gross rent shifted from the first half of the decade to the second half of the decade. Figure #10 shows the shift such that a larger proportion of renters paid \$1000-\$1499 in the late 2010's than in the early 2010's, and a smaller proportion of renters paid \$500-\$999 in the late 2010's as compared to the early 2010's. Note that the data is not inflation adjusted.



\*source: ACS 5-year estimates

### United For ALICE Households

Based on calculations from the American Community Survey and the ALICE Threshold in 2018, the City of Beaver Dam had 1809 households (27%) classified as ALICE and an additional 697 households (10%) fall below the Federal Poverty Level. The total number of households in 2018 below the ALICE Threshold in the City of Beaver Dam is 2,506 which makes up 37% of all households in the municipality. Compared to Dodge County which had 31% of households below the ALICE Threshold, the City of Beaver Dam has a notably higher concentration of ALICE households.

Table 46: ALICE Households in Beaver Dam: 2018				
Total Households	Households Below the Poverty Line	ALICE Households	Total Households Below ALICE Threshold	% of Households Below ALICE Threshold
6,798	697	1,809	2,506	37%

*\*Source: United For ALICE 2018, US Census Bureau ACS 5-year estimates*

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### Projected Household and Housing Unit Growth

According to the ACS, 568 units have been built in the City of Beaver Dam since 2010.

Household population growth projections can be used to estimate the future demand for new housing units. The Wisconsin Department of Administration (DOA) household growth projections, which were completed in 2013 using 2010 census data, provide an estimate for the projected increase in the number of households in the City of Beaver Dam between the years 2020 to 2030. The DOA projected that households in the City of Beaver Dam will increase by 856 from 2020-2030. However, the DOA projections have overestimated household growth over recent years. If the DOA's projection is adjusted to reflect current household estimates, it indicates that households in the City of Beaver Dam will grow by 749 households between 2020 and 2030.

If the number of new housing units built from 2020-2030 mirrors the number of housing units built since 2010, the City of Beaver Dam is on track to have a housing shortage of 181 units. This projection assumes the number household will grow according to DOA projections, and that new housing construction and home vacancy rates remain relatively constant. As the number of households in the City of Beaver Dam continues to increase, the current available housing supply will become further depleted as new construction rates fall short of keeping up with demand. Households unable to find adequate available housing in the City of Beaver Dam may begin to expand their search beyond the municipality to find housing that meets their needs. This outlook indicates that home prices will continue to rise and the number of homes available for-sale on the market will continue to decrease. Buyers will have very little bargaining power which will further exacerbate the issues of supplying adequate housing, especially for Asset Limited, Income Constrained, Employed (ALICE) households.

Table 47: Beaver Dam Housing Units and Households			
Housing Units	Household Estimate	Housing Units Built Since 2010	Vacant Housing Units
7,604	7,027	568	577

\*Source: ACS 5-year (2015-2019) estimate

Table 48: Beaver Dam Projected Household Growth			
Average Number of Housing Units Built each year 2010-2019	Adjusted DOA Projection for Average Household Growth Each Year from 2020-2030	Projected Housing Shortage Per Year	Projected Housing Shortage by 2030
57	75	(18)	(181)

\*Source: ACS 5-year (2015-2019) estimate, DOA

## B. City of Fox Lake

### Home Prices

Fox Lake had a high rate of home price appreciation in 2020. The estimate indicates a 63.1% increase in the median single-family home value price from 2016 to 2020. Home values appreciated in Fox Lake at a faster rate than Dodge County as a whole. The data for home sales in Fox Lake is very limited and the 63.1% increase probably overstates home price appreciation in Fox Lake.

**Table 49: Fox Lake Median Close Price**

Year	Median Home Price	Increase from Previous Year	Total % Appreciation Since 2016
2016	\$88,000	-	-
2017	\$102,650	16.6%	16.6%
2018	\$84,250	-17.9%	-4.3%
2019	\$124,999	48.4%	42.0%
2020	\$143,500	14.8%	63.1%

\*Source: Wisconsin Department of Revenue

**Table 50: Dodge County Median Close Price**

Year	Median Home Price	Increase from Previous Year	Total % Appreciation Since 2016
2016	\$129,000	-	-
2017	\$139,900	8.4%	8.4%
2018	\$142,000	1.5%	10.1%
2019	\$156,000	9.9%	20.9%
2020	\$171,500	9.9%	32.9%

\*Source: Wisconsin Department of Revenue

### Months' Supply of Housing

The data also indicates homes in Fox Lake are selling quickly. Fox Lake has a months' supply of housing of 4.55 in 2019. Six months of supply is considered the optimal months' supply in a balanced market. Fox Lake is below this threshold. Although Fox Lake has a months' supply below the six-month threshold, it is higher than other analyzed municipalities suggesting homes are selling less rapidly in Fox Lake compared with nearby municipalities.

**Table 51: Fox Lake Months' Inventory: Single-Family**

	Homes Sold	Months	Average # of Homes Sold Per Month	Average # of Homes Available to be Sold	Months' Supply of Housing	Absorption Rate
2016	23	12	1.9	36	18.78	5.3%
2017	32	12	2.7	35	13.09	7.6%
2018	38	12	3.2	30	9.42	10.6%
2019	37	12	3.1	22	7.11	14.1%
2020	44	12	3.7	17	4.55	22.0%

\*Source: Realtor.com and Wisconsin Department of Revenue

### Building Permits

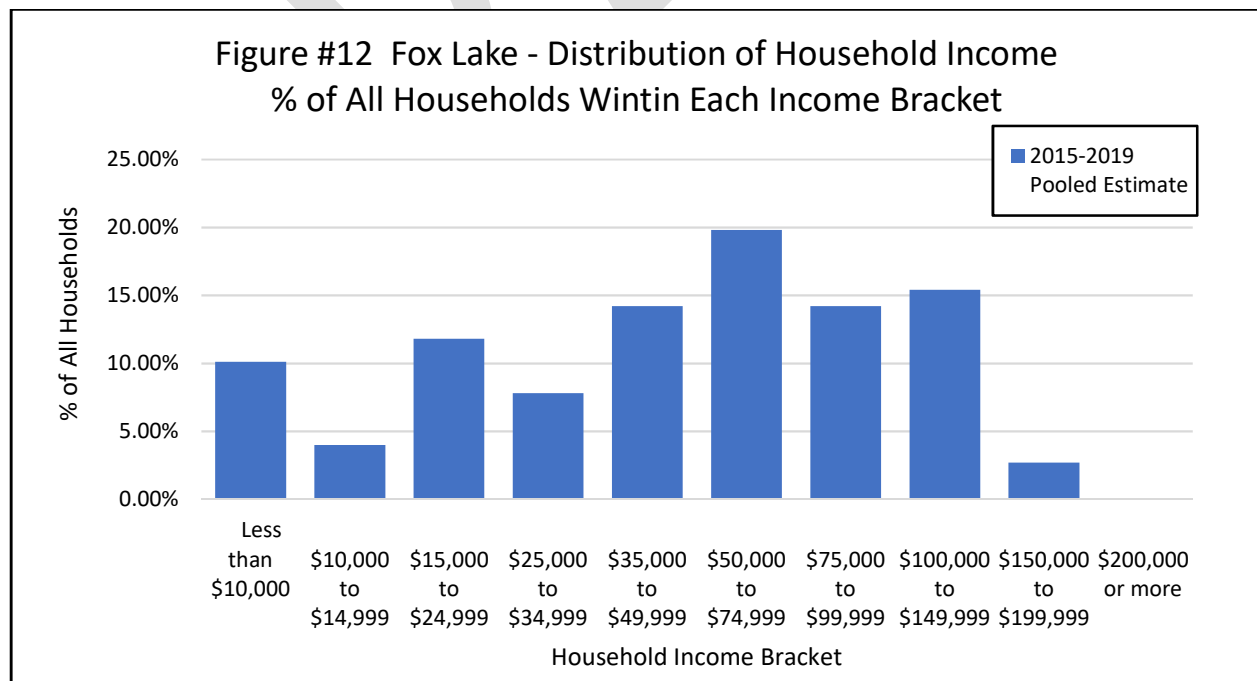
Building permits are recorded by the US Census for each municipality. In 2020, 0 total units were authorized by building permits in Fox Lake.

Table 52: Fox Lake Building Permits			
Year	Single-Family + Two-Family Total Units	Multifamily (3+) Total Units	Total Units Authorized by Permits
2014	0	0	0
2015	3	0	3
2016	0	0	0
2017	2	0	2
2018	1	0	1
2019	5	0	5
2020	0	0	0

\*Source: US Census Building Permits Survey

### Household Income

The distribution of household income for the City of Fox Lake is shown below (Figure #12). Household income in an area has important implications for affordability of housing, both for renter households and homeowner households.

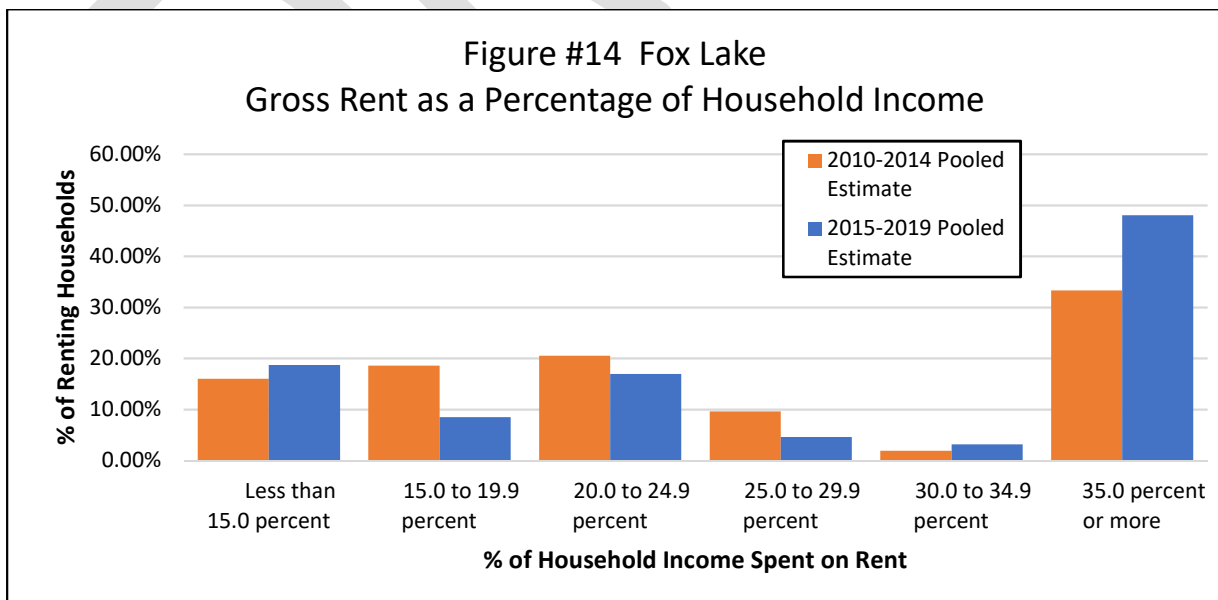
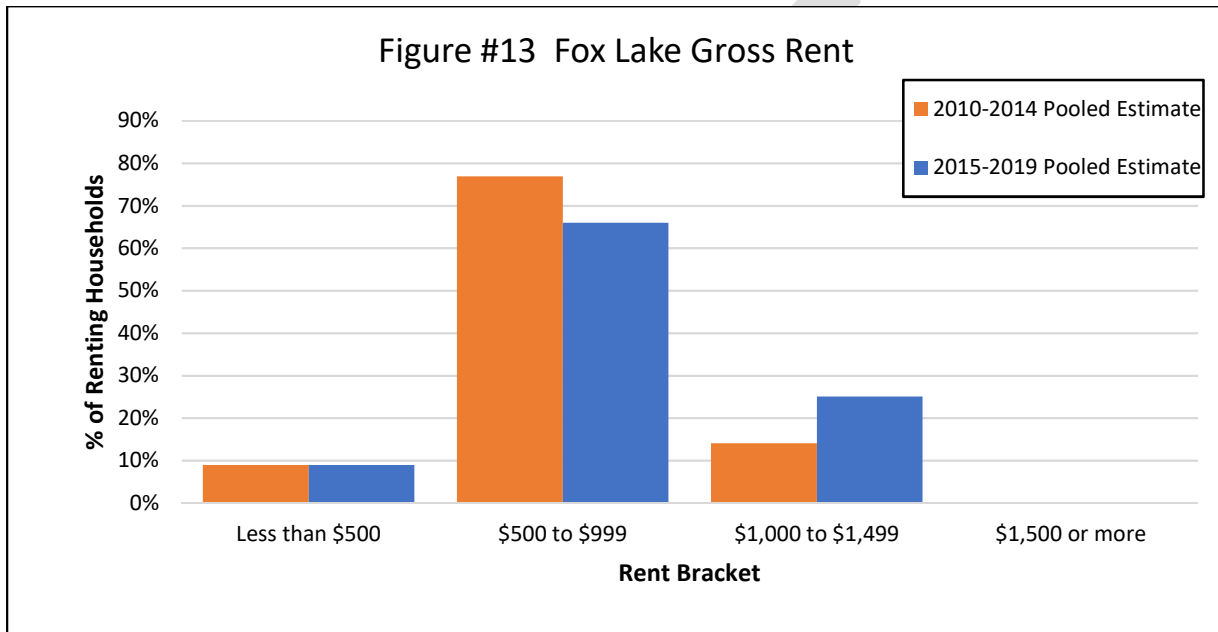


\*source: ACS 5-year estimates

### Gross Rent & Gross Rent as a Percentage of Household Income

The distribution of gross rent shifted from the first half of the decade to the second half of the decade. Figure #10 shows the shift such that a larger proportion of renters paid \$1000-\$1499 in the late 2010's than in the early 2010's, and a smaller proportion of renters paid \$500-\$999 in the late 2010's as compared to the early 2010's. Note that the data is not inflation adjusted.

Gross rent as a percentage of household income also changed and indicates a decrease in affordability. A large increase in the number of renting households spending 35% or more of their income on housing.



\*source: ACS 5-year estimates

### United For ALICE Households

Based on calculations from the American Community Survey and the ALICE Threshold in 2018, the Fox Lake had 150 households (22%) classified as ALICE and an additional 120 households (17%) fall below the Federal Poverty Level. The total number of households in 2018 below the ALICE Threshold in Fox Lake is 270 which makes up 39% of all households in the municipality. Compared to Dodge County which had 31% of households below the ALICE Threshold, Fox Lake has a higher distribution of ALICE households.

Table 53: ALICE Households in Fox Lake: 2018				
Total Households	Households Below the Poverty Line	ALICE Households	Total Households Below ALICE Threshold	% of Households Below ALICE Threshold
692	120	150	270	39%

*\*Source: United For ALICE 2018, US Census Bureau ACS 5-year estimates*

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### Projected Household and Housing Unit Growth

Housing unit growth has been low over the last ten years. According to the ACS, 19 units have been built in Fox Lake since 2010. This low increase in new housing supply can be partially contributed to the recession and recent suppressed household growth rates. The recent low rates of construction are not adequate to keep up with projected household growth over the next ten years. If new housing unit construction continues at this slow pace, population will not grow.

Household population growth projections can be used to estimate the future demand for new housing units. The Wisconsin Department of Administration (DOA) household growth projections, which were completed in 2013 using 2010 census data, provide an estimate for the projected increase in the number of households in Fox Lake between the years 2020 to 2030. The DOA projected that households in Fox Lake will increase by 59 from 2020-2030. However, the DOA projections have overestimated household growth over recent years. If the DOA's projection is adjusted to reflect current household estimates, it indicates that households in Fox Lake will grow by 56 households between 2020 and 2030.

If the number of new housing units built from 2020-2030 mirrors the number of housing units built since 2010, Fox Lake is on track to have a housing shortage of 37 units. This projection assumes the number household will grow according to DOA projections, and that new housing construction and home vacancy rates remain relatively constant. As the number of households in Fox Lake continues to increase, the current available housing supply will become further depleted as new construction rates fall short of keeping up with demand. Households unable to find adequate available housing in Fox Lake may begin to expand their search beyond the municipality to find housing that meets their needs. This outlook indicates that home prices will continue to rise and the number of homes available for-sale on the market will continue to decrease. Buyers will have very little bargaining power which will further exacerbate the issues of supplying adequate housing, especially for Asset Limited, Income Constrained, Employed (ALICE) households.

**Table 54: Fox Lake Housing Units and Households**

Housing Units	Household Estimate	Housing Units Built 2010-2019	Vacant Housing Units
2,387	703	19	117

*\*Source: ACS 5-year (2015-2019) estimate*

**Table 55: Fox Lake Projected Household Growth**

Average Number of Housing Units Built each year 2010-2019	Adjusted DOA Projection for Average Household Growth Each Year from 2020-2030	Projected Housing Shortage Per Year	Projected Housing Shortage by 2030
2	6	(4)	(37)

*\*Source: ACS 5-year (2015-2019) estimate, DOA*

## C. City of Horicon

### Home Sale Price

Horicon witnessed a 26.9% increase in the median single-family home sale price from 2016 to 2020. Home values appreciated in Horicon at a slower rate compared to Dodge County as a whole.

Year	Median Home Price	Increase from Previous Year	Total % Appreciation Since 2016
2016	\$108,000	-	-
2017	\$119,000	10.2%	10.2%
2018	\$120,000	0.8%	11.1%
2019	\$129,000	7.5%	19.4%
2020	\$137,000	6.2%	26.9%

*\*Source: Wisconsin Department of Revenue*

Year	Median Home Price	Increase from Previous Year	Total % Appreciation Since 2016
2016	\$129,000	-	-
2017	\$139,900	8.4%	8.4%
2018	\$142,000	1.5%	10.1%
2019	\$156,000	9.9%	20.9%
2020	\$171,500	9.9%	32.9%

*\*Source: Wisconsin Department of Revenue*

### Months' Inventory

The data also indicates homes in Horicon are selling quickly. Horicon has a months' supply of housing of 3.06 in 2020. Six months of supply is considered the optimal months' supply in a balanced market. Horicon is slightly below this threshold indicating homes are selling rapidly due to high demand.

	Homes Sold	Months	Average # of Homes Sold Per Month	Average # of Homes Available to be Sold	Months' Supply of Housing	Absorption Rate
2016	51	12	4.3	40	9.49	10.5%
2017	61	12	5.1	21	4.05	24.7%
2018	69	12	5.8	18	3.04	32.9%
2019	59	12	4.9	14	2.89	34.6%
2020	47	12	3.9	12	3.06	32.6%

*\*Source: Realtor.com and Wisconsin Department of Revenue*

## Building Permits

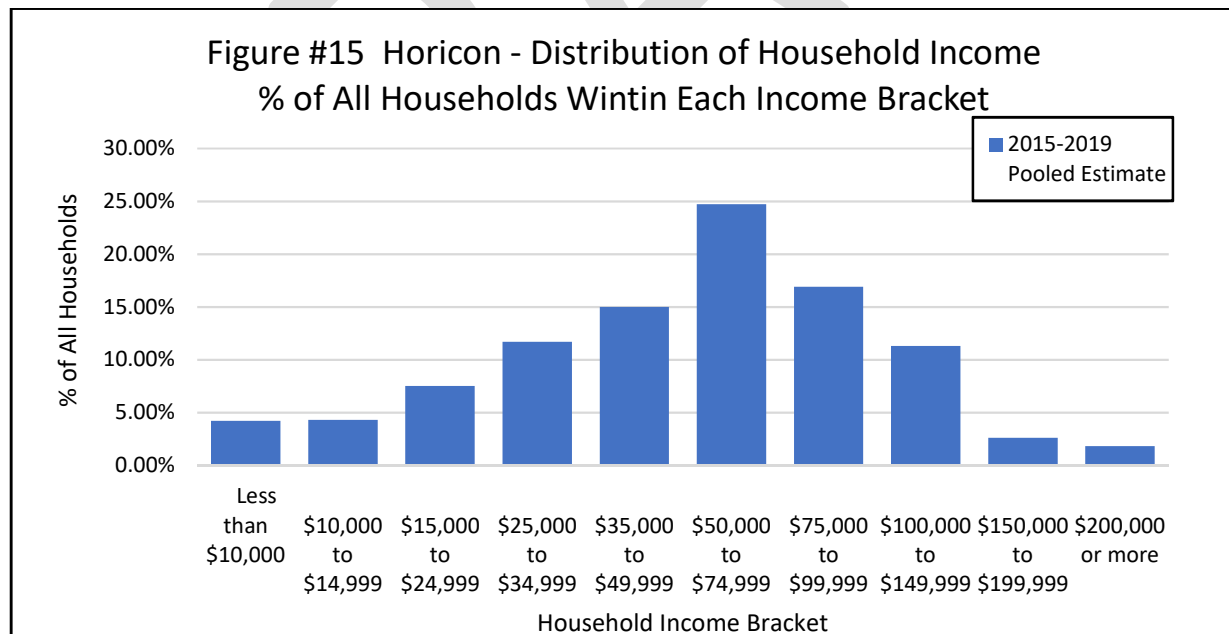
Building permits are recorded by the US Census for each municipality. In 2020, 21 total units were authorized by building permits in Horicon.

Table 59: Horicon Building Permits			
Year	Single-Family + Two-Family Total Units	Multifamily (3+) Total Units	Total Units Authorized by Permits
2014	3	0	3
2015	0	0	0
2016	0	0	0
2017	0	0	0
2018	1	36	37
2019	0	36	36
2020	21	0	21

\*Source: US Census Building Permits Survey

## Household Income

The distribution of household income for the Horicon has important implications for affordability of housing, both for renter households and homeowner households.

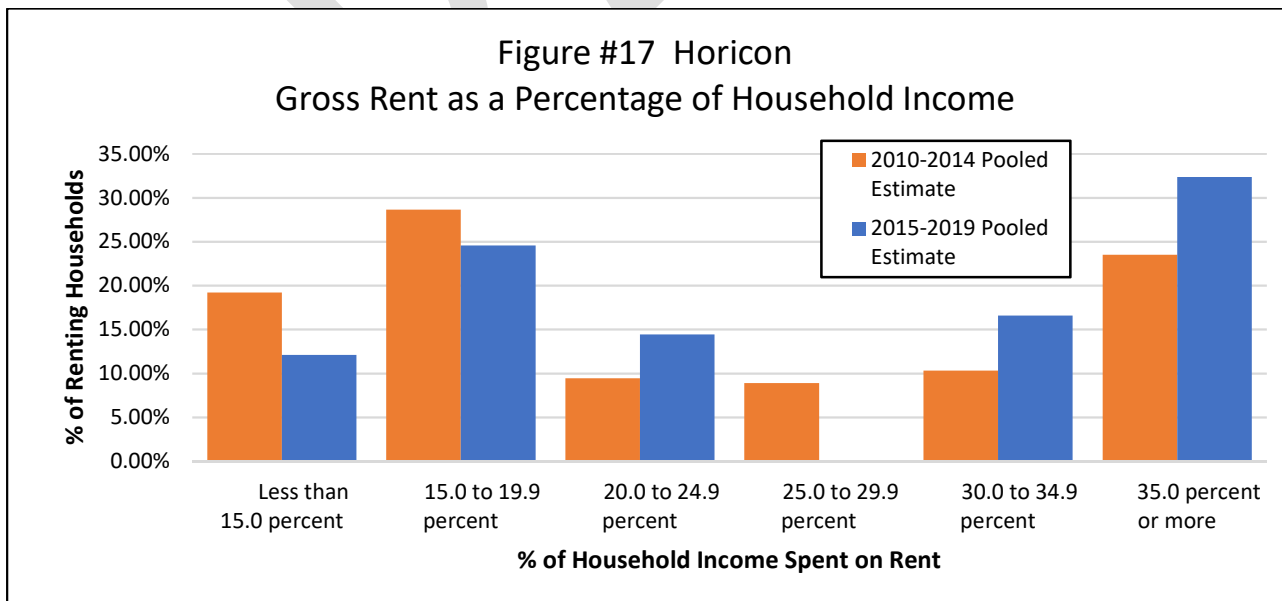
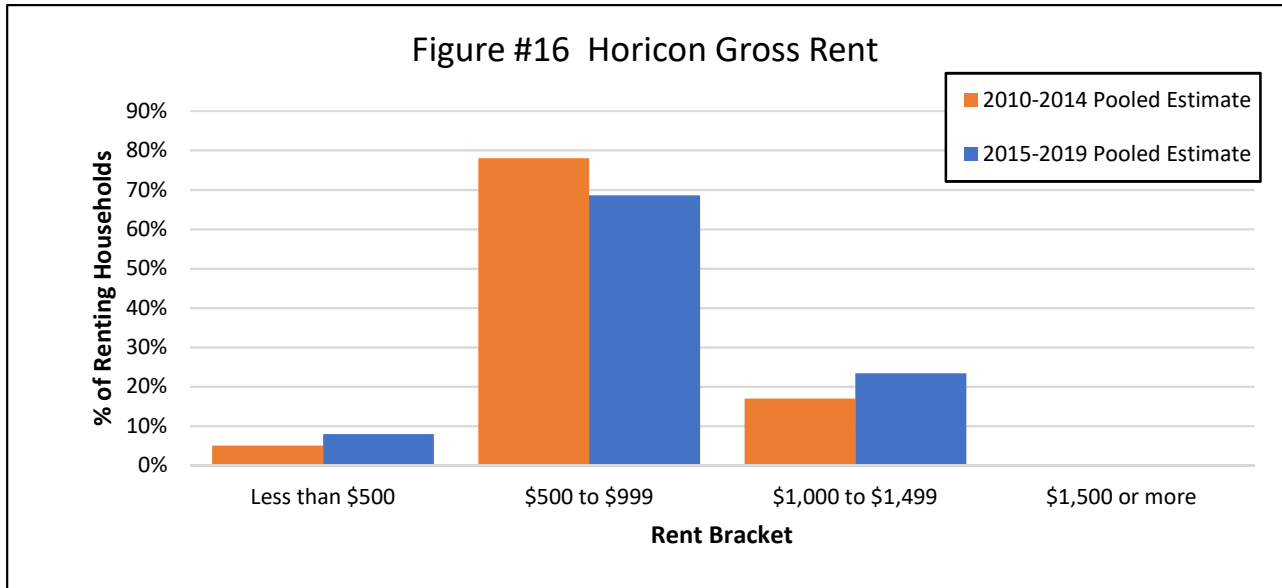


\*source: ACS 5-year estimates

### Gross Rent & Gross Rent as a Percentage of Household Income

There is evidence that the distribution of gross rent shifted from the first half of the decade to the second half of the decade. A larger proportion of renters paid \$1000-\$1499 in the late 2010's than in the early 2010's, and a smaller proportion of renters paid \$500-\$999 in the late 2010's as compared to the early 2010's (Figure #16). Note that the data is not inflation adjusted.

Gross rent as a percentage of household income also changed and indicates a decrease in affordability.



\*source: ACS 5-year estimates

### United For ALICE Households

Based on calculations from the American Community Survey and the ALICE Threshold in 2018, the Horicon had 255 households (19%) classified as ALICE and an additional 156 households (11%) fall below the Federal Poverty Level. The total number of households in 2018 below the ALICE Threshold in Horicon is 411 which makes up 30% of all households in the municipality. Compared to Dodge County which had 31% of households below the ALICE Threshold, Horicon has a very similar distribution of ALICE households.

Table 60: ALICE Households in Horicon: 2018				
Total Households	Households Below the Poverty Line	ALICE Households	Total Households Below ALICE Threshold	% of Households Below ALICE Threshold
1,375	156	255	411	30%

*\*Source: United For ALICE 2018, US Census Bureau ACS 5-year estimates*

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### Projected Household and Housing Unit Growth

Housing unit growth has been low over the last ten years. According to the ACS, 0 units have been built in Horicon since 2010. This low increase in new housing supply can be partially contributed to the recession and recent suppressed household growth rates. The recent low rates of construction are not adequate to keep up with projected household growth over the next ten years. If new housing unit construction continues at this slow pace, population will not grow.

Household population growth projections can be used to estimate the future demand for new housing units. The Wisconsin Department of Administration (DOA) household growth projections, which were completed in 2013 using 2010 census data, provide an estimate for the projected increase in the number of households in Horicon between the years 2020 to 2030. The DOA projected that households in Horicon will increase by 52 from 2020-2030. However, the DOA projections have overestimated household growth over recent years. If the DOA's projection is adjusted to reflect current household estimates, it indicates that households in Horicon will grow by 47 households between 2020 and 2030.

If the number of new housing units built from 2020-2030 mirrors the number of housing units built since 2010, Horicon is on track to have a housing shortage of 47 units. This projection assumes the number household will grow according to DOA projections, and that new housing construction and home vacancy rates remain relatively constant. As the number of households in Horicon continues to increase, the current available housing supply will become further depleted as new construction rates fall short of keeping up with demand. Households unable to find adequate available housing in Horicon may begin to expand their search beyond the municipality to find housing that meets their needs. This outlook indicates that home prices will continue to rise and the number of homes available for-sale on the market will continue to decrease. Buyers will have very little bargaining power which will further exacerbate the issues of supplying adequate housing, especially for Asset Limited, Income Constrained, Employed (ALICE) households.

Table 61: Horicon Housing Units and Households			
Housing Units	Household Estimate	Housing Units Built 2010-2019	Vacant Housing Units
1,493	1,422	0	71

*\*Source: ACS 5-year (2015-2019) estimate*

Table 62: Horicon Projected Household Growth			
Average Number of Housing Units Built each year 2010-2019	Adjusted DOA Projection for Average Household Growth Each Year from 2020-2030	Projected Housing Shortage Per Year	Projected Housing Shortage by 2030
0	5	(5)	(47)

*\*Source: ACS 5-year (2015-2019) estimate, DOA*

## D. City of Juneau

### Home Sale Price

Juneau had a high rate of home price appreciation in 2020. The estimate indicates a 36.6% increase in the median single-family home sale price from 2016 to 2020. Home values appreciated in the City of Juneau at a similar rate compared to Dodge County as a whole. There is a good possibility that this home price appreciation is overstated due to the lack of home sale data.

Year	Median Home Price	Increase from Previous Year	Total % Appreciation Since 2016
2016	\$116,000	-	-
2017	\$114,000	-1.7%	-1.7%
2018	\$139,150	22.1%	20.0%
2019	\$115,000	-17.4%	-0.9%
2020	\$158,500	37.8%	36.6%

*\*Source: Wisconsin Department of Revenue*

Year	Median Home Price	Increase from Previous Year	Total % Appreciation Since 2016
2016	\$129,000	-	-
2017	\$139,900	8.4%	8.4%
2018	\$142,000	1.5%	10.1%
2019	\$156,000	9.9%	20.9%
2020	\$171,500	9.9%	32.9%

*\*Source: Wisconsin Department of Revenue*

### Months' Inventory

The data indicates homes in Juneau are selling quickly. Juneau has a months' supply of housing of 4.46 in 2019. Six months of supply is considered the optimal months' supply in a balanced market. Juneau is below this threshold.

	Homes Sold	Months	Average # of Homes Sold Per Month	Average # of Homes Available to be Sold	Months' Supply of Housing	Absorption Rate
2016	18	12	1.5	31	20.89	4.8%
2017	34	12	2.8	30	10.47	9.6%
2018	30	12	2.5	17	6.90	14.5%
2019	39	12	3.3	15	4.46	22.4%
2020	36	12	3.0	-	-	-

*\*Source: Realtor.com and Wisconsin Department of Revenue*

### Building Permits

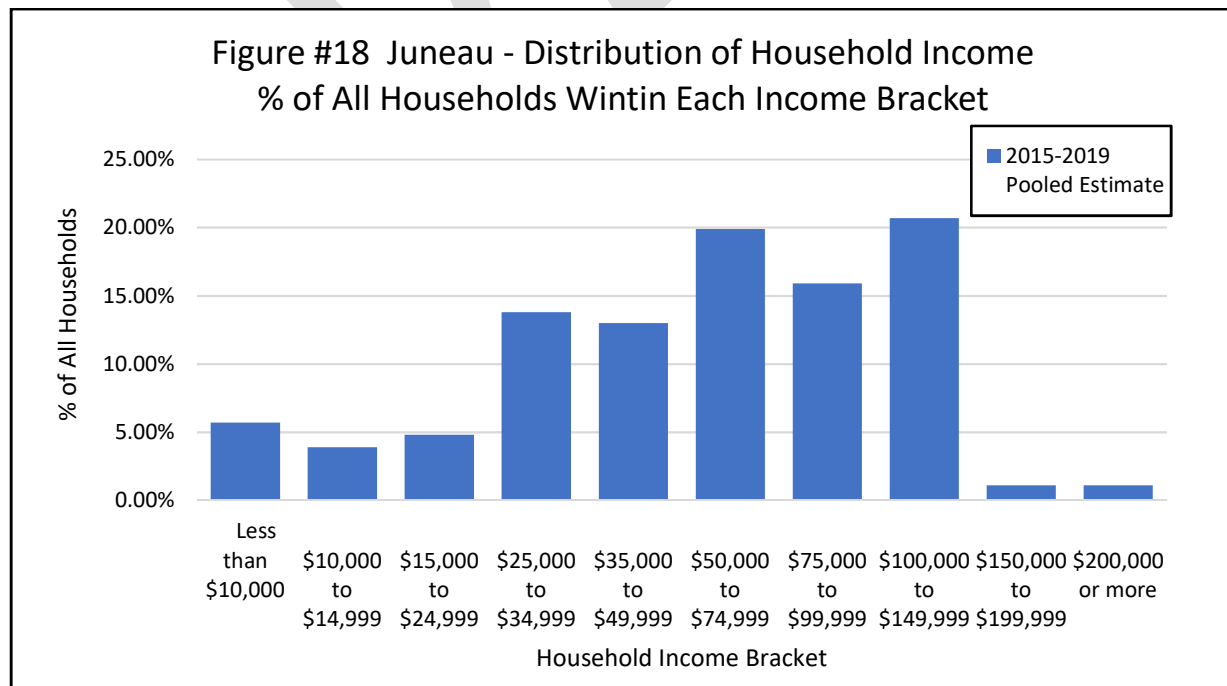
Building permits are recorded by the US Census for each municipality. In 2020, 0 total units were authorized by building permits in Juneau.

Table 66: Juneau Building Permits			
Year	Single-Family + Two-Family Total Units	Multifamily (3+) Total Units	Total Units Authorized by Permits
2014	4	0	4
2015	4	0	4
2016	0	0	0
2017	3	0	3
2018	0	0	0
2019	2	0	2
2020	0	0	0

\*Source: US Census Building Permits Survey

### Household Income

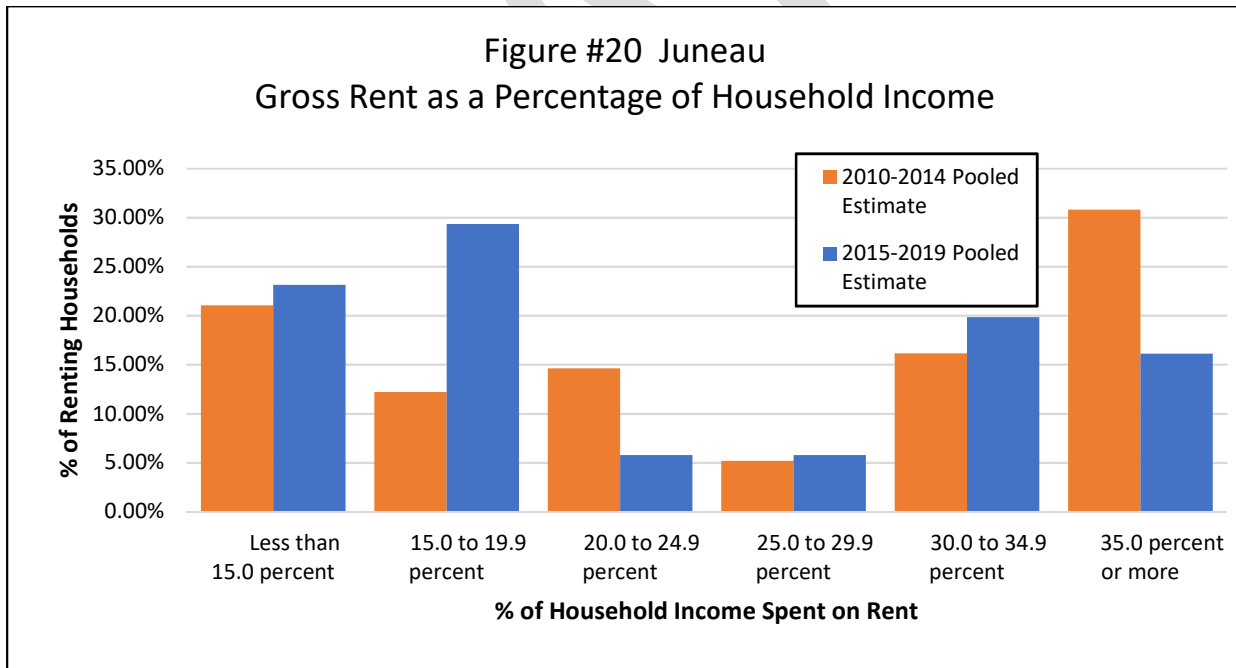
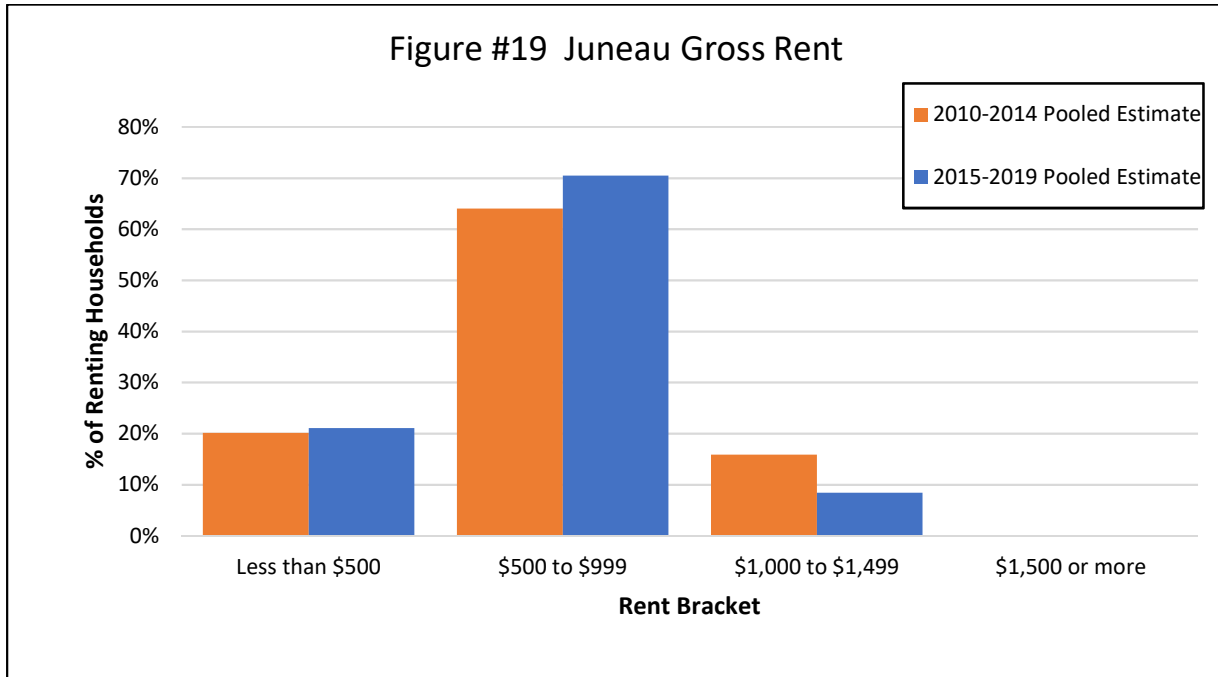
The distribution of household income for Juneau is shown below. Household income in an area has important implications for affordability of housing, both for renter households and homeowner households.



\*source: ACS 5-year estimates



Gross Rent & Gross Rent as a Percentage of Household Income  
 Note that the data is not inflation adjusted.



\*source: ACS 5-year estimates

### United For ALICE Households

Based on calculations from the American Community Survey and the ALICE Threshold in 2018, Juneau had 177 households (20%) classified as ALICE and an additional 130 households (15%) fall below the Federal Poverty Level. The total number of households in 2018 below the ALICE Threshold in Juneau is 307 which makes up 35% of all households in the municipality. Compared to Dodge County which had 31% of households below the ALICE Threshold, Juneau has a higher concentration of ALICE households.

Table 67: ALICE Households in Juneau: 2018				
Total Households	Households Below the Poverty Line	ALICE Households	Total Households Below ALICE Threshold	% of Households Below ALICE Threshold
879	130	177	307	35%

*\*Source: United For ALICE 2018, US Census Bureau ACS 5-year estimates*

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### Projected Household and Housing Unit Growth

Housing unit growth has been low over the last ten years. According to the ACS, 5 units have been built in Juneau since 2010. This low increase in new housing supply can be partially contributed to the recession and recent suppressed household growth rates. The recent low rates of construction are not adequate to keep up with projected household growth over the next ten years. If new housing unit construction continues at this slow pace, population will not grow.

Household population growth projections can be used to estimate the future demand for new housing units. The Wisconsin Department of Administration (DOA) household growth projections, which were completed in 2013 using 2010 census data, provide an estimate for the projected increase in the number of households in Juneau between the years 2020 to 2030. The DOA projected that households in Juneau will increase by 32 from 2020-2030. The DOA's household population projection was accurate for Juneau over the last ten years.

If the number of new housing units built from 2020-2030 mirrors the number of housing units built since 2010, Juneau is on track to have a housing shortage of 27 units. This projection assumes the number household will grow according to DOA projections, and that new housing construction and home vacancy rates remain relatively constant. As the number of households in Juneau continues to increase, the current available housing supply will become further depleted as new construction rates fall short of keeping up with demand. Households unable to find adequate available housing in Juneau may begin to expand their search beyond the municipality to find housing that meets their needs. This outlook indicates that home prices will continue to rise and the number of homes available for-sale on the market will continue to decrease. Buyers will have very little bargaining power which will further exacerbate the issues of supplying adequate housing, especially for Asset Limited, Income Constrained, Employed (ALICE) households.

Table 68: Juneau Housing Units and Households			
Housing Units	Household Estimate	Housing Units Built 2010-2019	Vacant Housing Units
971	891	5	80

*\*Source: ACS 5-year (2015-2019) estimate*

Table 69: Juneau Projected Household Growth			
Average Number of Housing Units Built each year 2010-2019	DOA Projection for Average Household Growth Each Year from 2020-2030	Projected Housing Shortage Per Year	Projected Housing Shortage by 2030
1	3	(2)	(27)

*\*Source: ACS 5-year (2015-2019) estimate, DOA*

## E. City of Watertown

### Home Sale Price

Watertown City had a high rate of home price appreciation in 2020. The estimate indicates a 30.7% increase in the median single-family home sale price from 2016 to 2020. Home values appreciated in Watertown at a similar rate compared to Dodge County as a whole.

Year	Median Home Price	Increase from Previous Year	Total % Appreciation Since 2016
2016	\$137,000	-	-
2017	\$140,250	2.4%	2.4%
2018	\$145,000	3.4%	5.8%
2019	\$160,000	10.3%	16.8%
2020	\$179,050	11.9%	30.7%

\*Source: Wisconsin Department of Revenue

Year	Median Home Price	Increase from Previous Year	Total % Appreciation Since 2016
2016	\$129,000	-	-
2017	\$139,900	8.4%	8.4%
2018	\$142,000	1.5%	10.1%
2019	\$156,000	9.9%	20.9%
2020	\$171,500	9.9%	32.9%

\*Source: Wisconsin Department of Revenue

### Months' Inventory

The data also indicates homes in Watertown are selling quickly. Watertown has a months' supply of housing of 1.56. Six months of supply is considered the optimal months' supply in a balanced market. Watertown is below this threshold.

	Homes Sold	Months	Average # of Homes Sold Per Month	Average # of Homes Available to be Sold	Months' Supply of Housing	Absorption Rate
2016	281	12	23.4	168	7.15	14.0%
2017	384	12	32.0	94	2.93	34.1%
2018	360	12	30.0	70	2.33	43.0%
2019	379	12	31.6	66	2.10	47.6%
2020	370	12	30.8	48	1.56	64.2%

\*Source: Realtor.com and Wisconsin Department of Revenue

## Building Permits

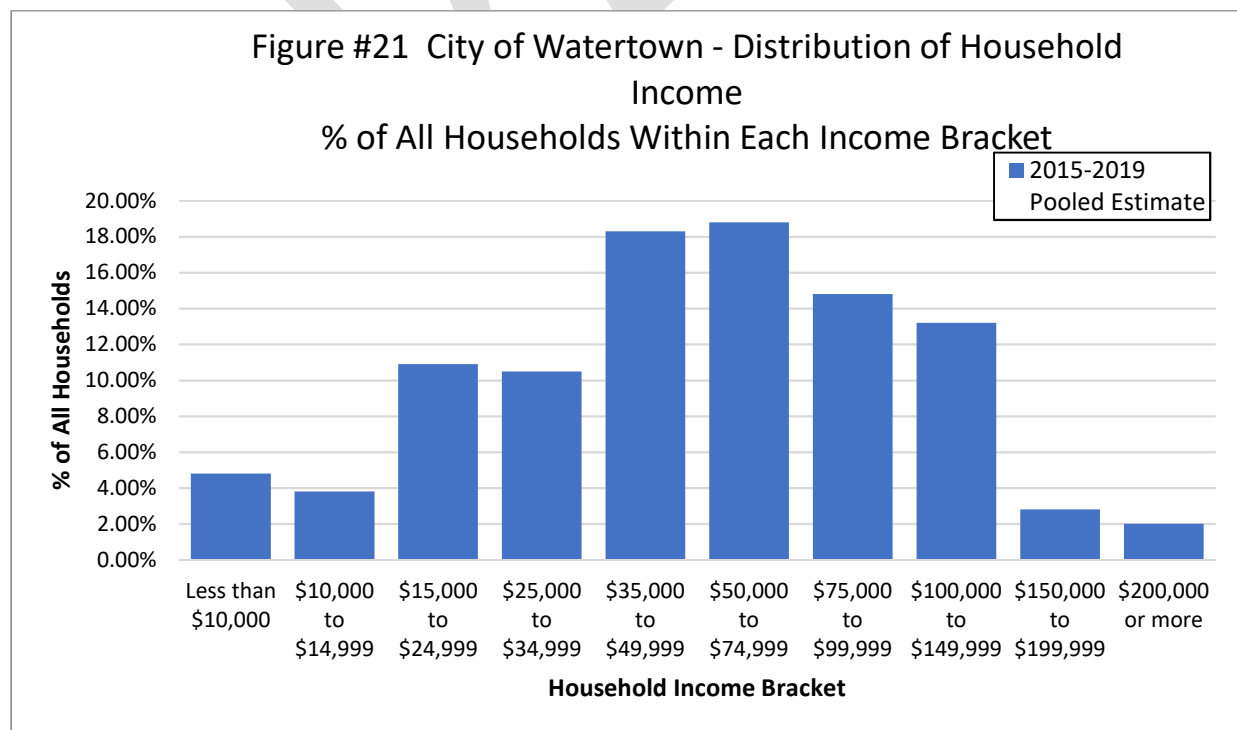
Building permits are recorded by the US Census for each municipality. In 2020, 67 total units were authorized by building permits in Watertown.

Table 73: Watertown Building Permits			
Year	Single-Family + Two-Family Total Units	Multifamily (3+) Total Units	Total Units Authorized by Permits
2014	18	0	18
2015	16	0	16
2016	25	0	25
2017	34	0	34
2018	32	0	32
2019	29	24	53
2020	31	36	67

\*Source: US Census Building Permits Survey

## Household Income

The distribution of household income for Watertown is shown below. Household income in an area has important implications for affordability of housing, both for renter households and homeowner households.

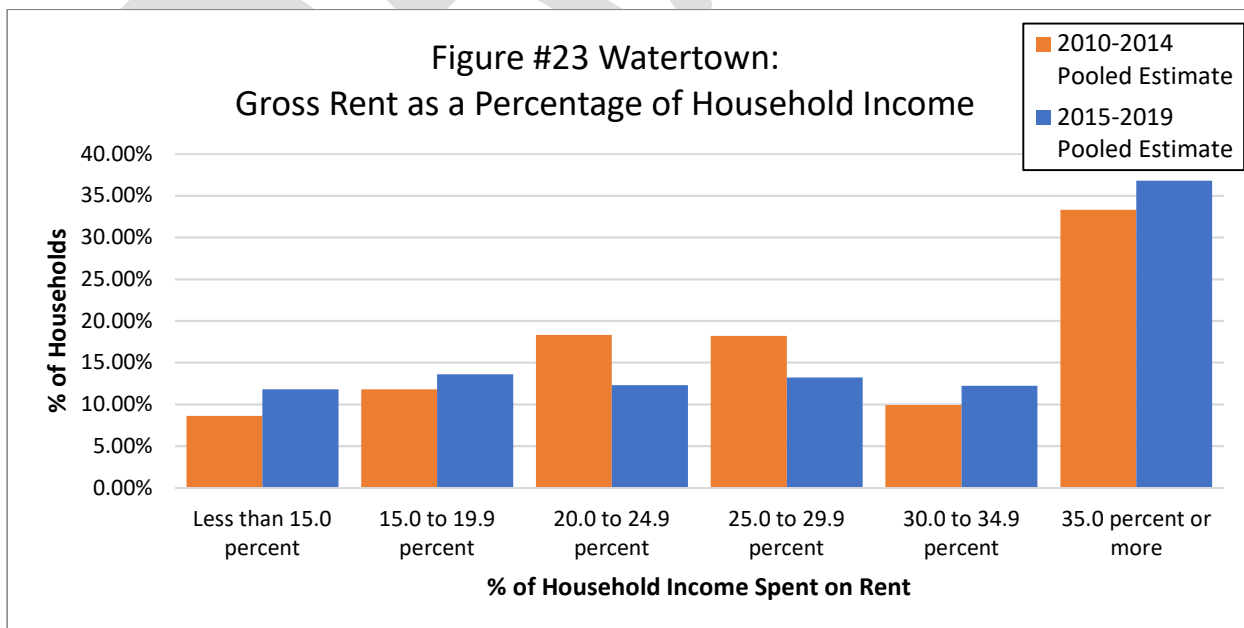
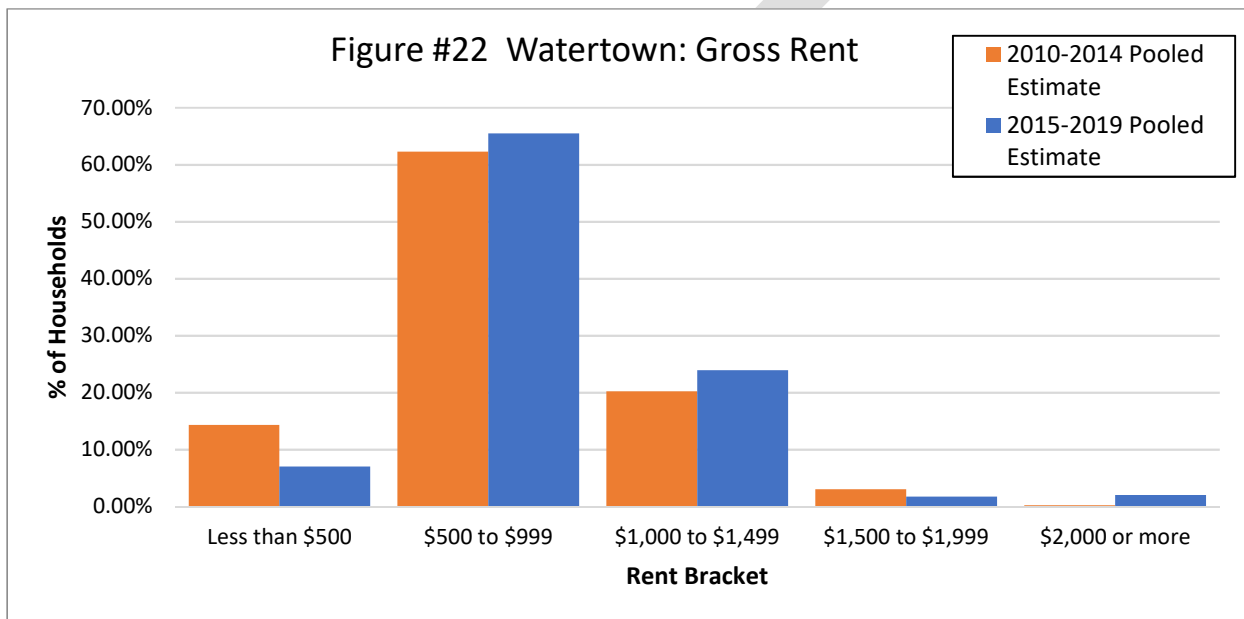


\*source: ACS 5-year estimates

### Gross Rent & Gross Rent as a Percentage of Household Income

The statistical tests showed that there is evidence that the distribution of gross rent shifted from the first half of the decade to the second half of the decade. In particular, there is evidence that rent bracket of \$500 in rent or less decreased as a proportion of all renters; the changes in other brackets were not statistically significant. Watertown was also the only municipality analyzed where the change in median gross rent was statistically significant; the estimated median gross rent increased from \$800 to \$860.

None of the individual brackets for Gross Rent as a Percentage of Income had a change that could be shown to be statistically significant; again, this is in part due to a limited sample size.



\*source: ACS 5-year estimates

### United For ALICE Households

Based on calculations from the American Community Survey and the ALICE Threshold in 2018, the Watertown had 3,403 households (36%) classified as ALICE and an additional 992 households (10%) fall below the Federal Poverty Level. The total number of households in 2018 below the ALICE Threshold in Watertown is 4,325 which makes up 46% of all households in the municipality. Compared to Dodge County which had 31% of households below the ALICE Threshold, Watertown has a substantially higher concentration of ALICE households.

Table 74: ALICE Households in Watertown: 2018				
Total Households	Households Below the Poverty Line	ALICE Households	Total Households Below ALICE Threshold	% of Households Below ALICE Threshold
9,463	922	3,403	4,325	46%

*\*Source: United For ALICE 2018, US Census Bureau ACS 5-year estimates*

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### Projected Household and Housing Unit Growth

The projected growth of housing units in the City of Watertown was estimated in their Comprehensive Plan as prepared by Vandewalle and Associates, which appears to have been prepared prior to 2010 and amended in 2017. As a result, the plan could not fully anticipate the challenges presented by the recession or by Covid-19, a condition consistent with many comprehensive plans. The plan projected that from 2010-2020, the number of new housing units built in Watertown would equal 949. According to the ACS, only 319 units have been built in Watertown since 2010. This drastically lower increase in new housing supply can be partially contributed to the housing crash in 2008 and recent suppressed household growth rates. The recent low rates of construction are not adequate to keep up with projected household growth over the next ten years.

Household population growth projections can be used to estimate the future demand for new housing units. The Wisconsin Department of Administration (DOA) household growth projections, which were completed in 2013 using 2010 census data, provide an estimate for the projected increase in the number of households in Watertown between the years 2020 to 2030. The DOA projected that households in Watertown will increase by 1,065 from 2020-2030. However, the DOA projections have overestimated household growth over recent years. If the DOA's projection is adjusted to reflect current household estimates, it indicates that households in Watertown will grow by 980 households between 2020 and 2030.

If the number of new housing units built from 2020-2030 mirrors the number of housing units built since 2010, Watertown is on track to have a housing shortage of 661 units. This projection assumes the number household will grow according to DOA projections, and that new housing construction and home vacancy rates remain relatively constant. As the number of households in Watertown continues to increase, the current available housing supply will become further depleted as new construction rates fall short of keeping up with demand. Households unable to find adequate available housing in Watertown may begin to expand their search beyond the municipality to find housing that meets their needs. This outlook indicates that home prices will continue to rise and the number of homes available for-sale on the market will continue to decrease. Buyers will have very little bargaining power which will further exacerbate the issues of supplying adequate housing, especially for Asset Limited, Income Constrained, Employed (ALICE) households.

Table 75: Watertown: Housing Units and Households			
Housing Units	Household Estimate	Housing Units Built Since 2010	Vacant Housing Units
9,787	9,402	319	385

*\*Source: ACS 5-year (2015-2019) estimate*

Table 76: Watertown: Projected Household Growth			
Average Number of Housing Units Built each year 2010-2019	Adjusted DOA Projection for Average Household Growth Each Year from 2020-2030	Projected Housing Shortage Per Year	Projected Housing Shortage by 2030
32	98	(66)	(661)

*\*Source: ACS 5-year (2015-2019) estimate, DOA*



## F. City of Mayville

### Home Prices

Mayville had a low rate of home price appreciation in 2020. The estimate indicates a 39.8% increase in the median single-family home sale price from 2016 to 2020. Home values appreciated in Mayville at a faster rate than Dodge County as a whole.

Year	Median Home Price	Increase from Previous Year	Total % Appreciation Since 2016
2016	\$108,000	-	-
2017	\$124,900	15.6%	15.6%
2018	\$129,450	3.6%	19.9%
2019	\$145,000	12.0%	34.3%
2020	\$151,000	4.1%	39.8%

\*Source: Wisconsin Department of Revenue

Year	Median Home Price	Increase from Previous Year	Total % Appreciation Since 2016
2016	\$129,000	-	-
2017	\$139,900	8.4%	8.4%
2018	\$142,000	1.5%	10.1%
2019	\$156,000	9.9%	20.9%
2020	\$171,500	9.9%	32.9%

\*Source: Wisconsin Department of Revenue

### Months' Supply of Housing

The data also indicates homes in Mayville are selling quickly. Mayville has a months' supply of housing of 1.86. Six months of supply is considered the optimal months' supply in a balanced market. Mayville is below this threshold.

	Homes Sold	Months	Average # of Homes Sold Per Month	Average # of Homes Available to be Sold	Months' Supply of Housing	Absorption Rate
2016	65	12	5.4	38	7.02	14.3%
2017	86	12	7.2	23	3.23	30.9%
2018	92	12	7.7	20	2.54	39.3%
2019	87	12	7.3	18	2.45	40.9%
2020	97	12	8.1	15	1.86	53.9%

\*Source: Realtor.com and Wisconsin Department of Revenue

### Building Permits

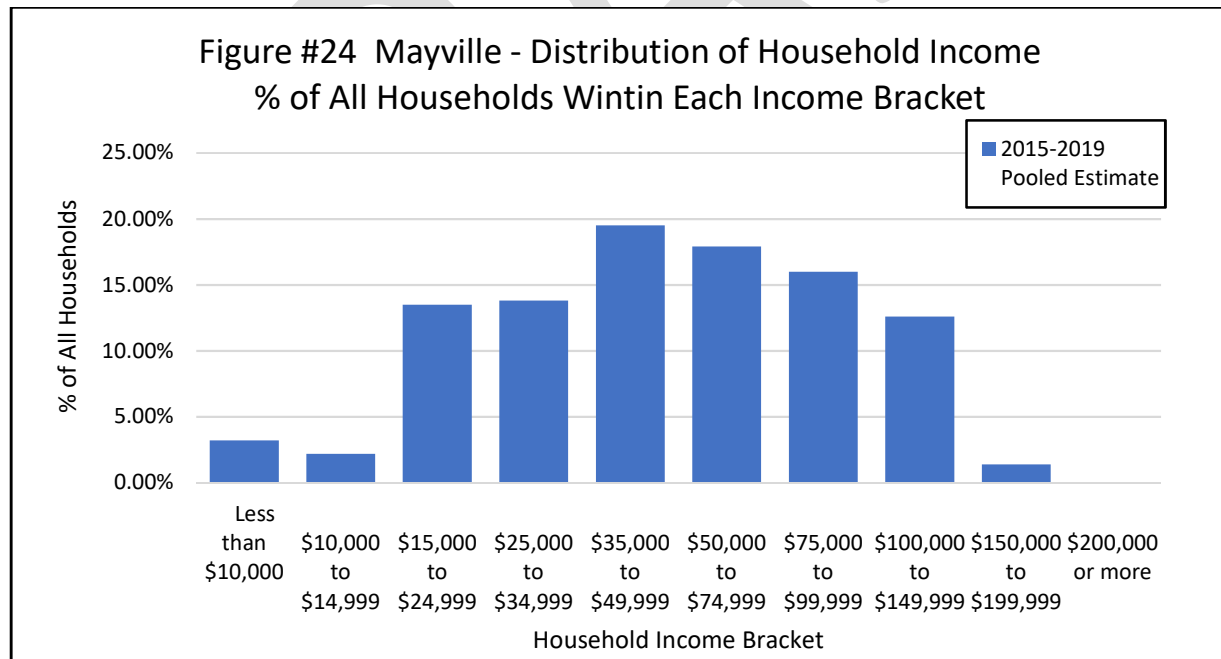
Building permits are recorded by the US Census for each municipality. In 2020, 2 total units were authorized by building permits in Mayville.

Table 80: Mayville Building Permits			
Year	Single-Family + Two-Family Total Units	Multifamily (3+) Total Units	Total Units Authorized by Permits
2014	4	0	4
2015	0	0	0
2016	0	0	0
2017	6	0	6
2018	10	0	10
2019	1	0	1
2020	2	0	2

\*Source: US Census Building Permits Survey

### Household Income

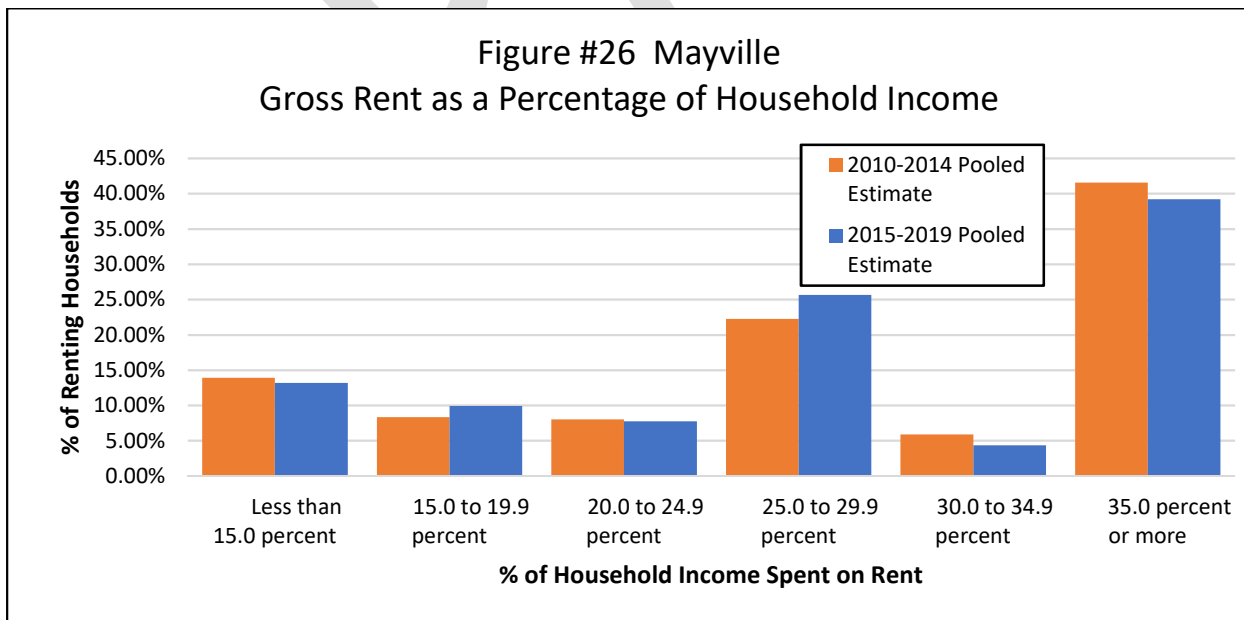
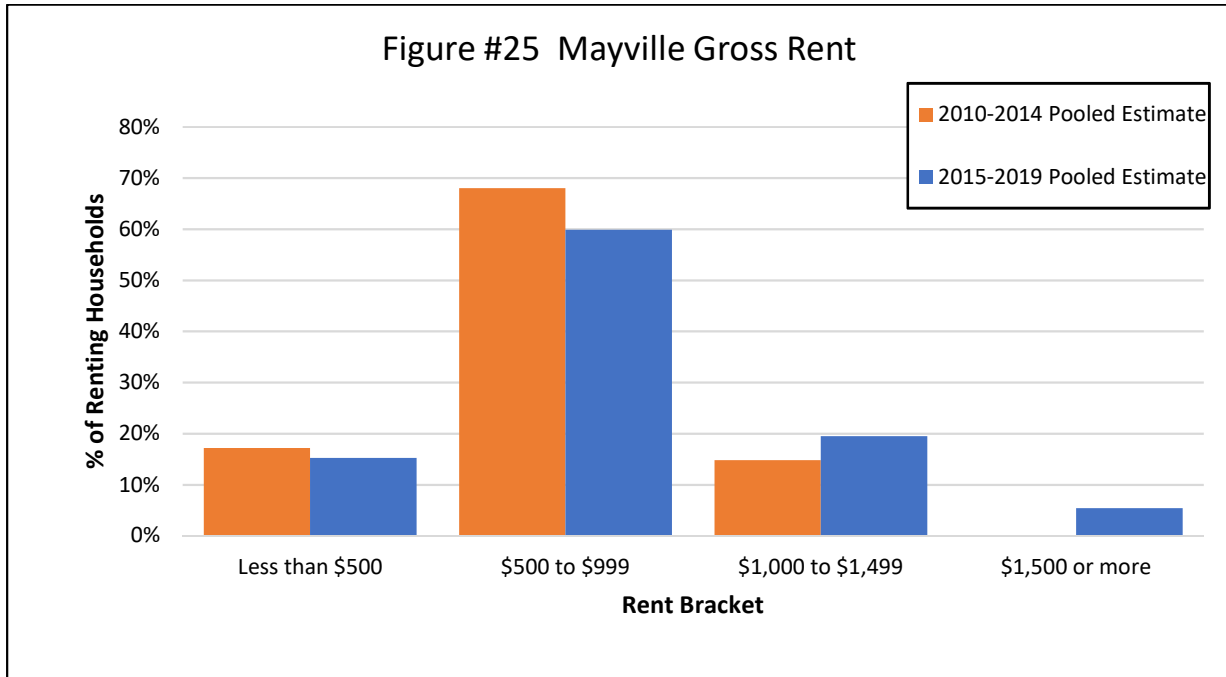
The distribution of household income for the City of Mayville is shown below. Household income in an area has important implications for affordability of housing, both for renter households and homeowner households.



\*source: ACS 5-year estimates

### Gross Rent & Gross Rent as a Percentage of Household Income

There is evidence that the distribution of gross rent shifted from the first half of the decade to the second half of the decade. A larger proportion of renters paid \$1000-\$1499 or \$1,500+ in the late 2010's than in the early 2010's, and a smaller proportion of renters paid \$500-\$999 in the late 2010's as compared to the early 2010's (Figure #25). Note that the data is not inflation adjusted.



\*Source: ACS 5-year estimates

### United For ALICE Households

Based on calculations from the American Community Survey and the ALICE Threshold in 2018, the Mayville had 546 households (27%) classified as ALICE and an additional 180 households (9%) fall below the Federal Poverty Level. The total number of households in 2018 below the ALICE Threshold in Mayville is 2,705 which makes up 35% of all households in the municipality. Compared to Dodge County which had 31% of households below the ALICE Threshold, Mayville has a higher distribution of ALICE households.

Table 81: ALICE Households in Mayville: 2018				
Total Households	Households Below the Poverty Line	ALICE Households	Total Households Below ALICE Threshold	% of Households Below ALICE Threshold
2,052	180	546	726	35%

*\*Source: United For ALICE 2018, US Census Bureau ACS 5-year estimates*

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### Projected Household and Housing Unit Growth

Housing unit growth has been low over the last ten years. According to the ACS, 25 units have been built in Mayville since 2010. This low increase in new housing supply can be partially contributed to the recession and recent suppressed household growth rates. The recent low rates of construction are not adequate to keep up with projected household growth over the next ten years. If new housing unit construction continues at this slow pace, population will not grow.

Household population growth projections can be used to estimate the future demand for new housing units. The Wisconsin Department of Administration (DOA) household growth projections, which were completed in 2013 using 2010 census data, provide an estimate for the projected increase in the number of households in Mayville between the years 2020 to 2030. The DOA projected that households in Mayville will increase by 201 from 2020-2030. However, the DOA projections have overestimated household growth over recent years. If the DOA's projection is adjusted to reflect current household estimates, it indicates that households in Mayville will grow by 176 households between 2020 and 2030.

If the number of new housing units built from 2020-2030 mirrors the number of housing units built since 2010, Mayville is on track to have a housing shortage of 151 units. This projection assumes the number household will grow according to DOA projections, and that new housing construction and home vacancy rates remain relatively constant. As the number of households in Mayville continues to increase, the current available housing supply will become further depleted as new construction rates fall short of keeping up with demand. Households unable to find adequate available housing in Mayville may begin to expand their search beyond the municipality to find housing that meets their needs. This outlook indicates that home prices will continue to rise and the number of homes available for-sale on the market will continue to decrease. Buyers will have very little bargaining power which will further exacerbate the issues of supplying adequate housing, especially for Asset Limited, Income Constrained, Employed (ALICE) households.

Table 82: Mayville Housing Units and Households			
Housing Units	Household Estimate	Housing Units Built 2010-2019	Vacant Housing Units
2,255	2,134	25	121

*\*Source: ACS 5-year (2015-2019) estimate*

Table 83: Mayville Projected Household Growth			
Average Number of Housing Units Built each year 2010-2019	Adjusted DOA Projection for Average Household Growth Each Year from 2020-2030	Projected Housing Shortage Per Year	Projected Housing Shortage by 2030
3	18	(15)	(151)

*\*Source: ACS 5-year (2015-2019) estimate, DOA*

## G. City of Waupun

### Home Prices

Waupun had a high rate of home price appreciation in 2020. The estimate indicates a 29.1% increase in the median single-family home sale price from 2016 to 2020. Home values appreciated in Waupun at a comparable rate to Dodge County as a whole.

Year	Median Home Price	Increase from Previous Year	Total % Appreciation Since 2016
2016	\$110,000	-	-
2017	\$105,000	-4.5%	-4.5%
2018	\$115,000	9.5%	4.5%
2019	\$127,500	10.9%	15.9%
2020	\$142,000	11.4%	29.1%

\*Source: Wisconsin Department of Revenue

Year	Median Home Price	Increase from Previous Year	Total % Appreciation Since 2016
2016	\$129,000	-	-
2017	\$139,900	8.4%	8.4%
2018	\$142,000	1.5%	10.1%
2019	\$156,000	9.9%	20.9%
2020	\$171,500	9.9%	32.9%

\*Source: Wisconsin Department of Revenue

### Months' Supply of Housing

The data also indicates homes in Waupun are selling quickly. Waupun has a months' supply of housing of 1.35. Six months of supply is considered the optimal months' supply in a balanced market. Waupun is below this threshold.

	Homes Sold	Months	Average # of Homes Sold Per Month	Average # of Homes Available to be Sold	Months' Supply of Housing	Absorption Rate
2016	112	12	9.3	34	3.68	27.2%
2017	133	12	11.1	34	3.02	33.1%
2018	144	12	12.0	30	2.51	39.8%
2019	154	12	12.8	23	1.78	56.2%
2020	167	12	13.9	19	1.35	74.1%

\*Source: Realtor.com and Wisconsin Department of Revenue

## Building Permits

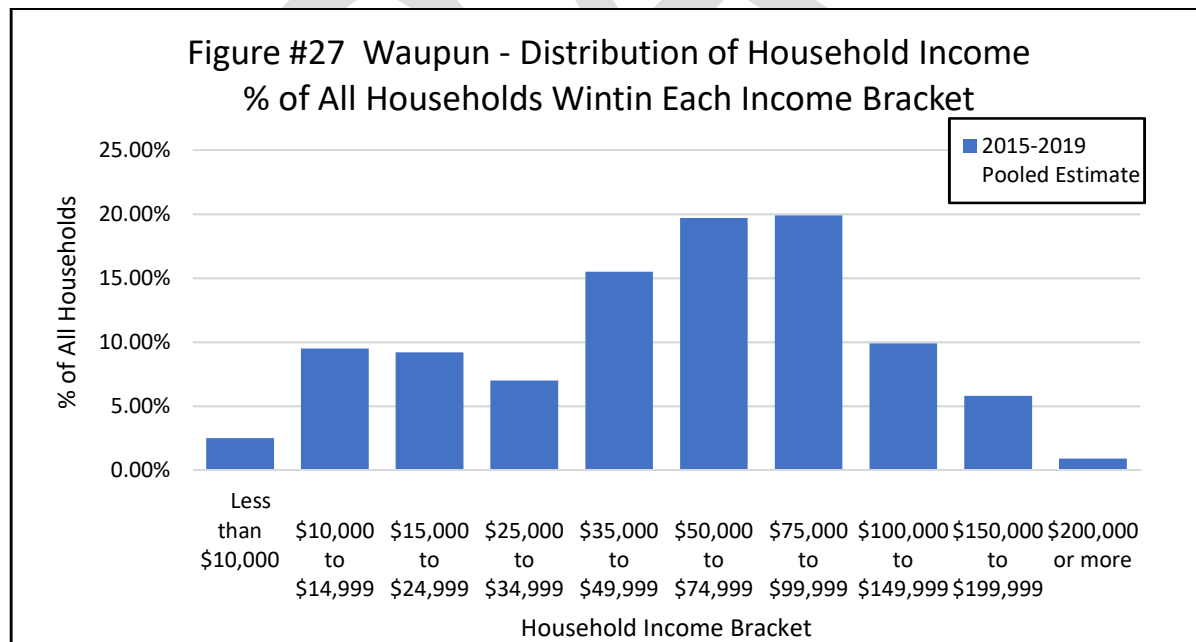
Building permits are recorded by the US Census for each municipality. In 2020, 19 total units were authorized by building permits in Waupun.

Table 87: Waupun Building Permits			
Year	Single-Family + Two-Family Total Units	Multifamily (3+) Total Units	Total Units Authorized by Permits
2014	3	0	3
2015	5	0	5
2016	10	0	10
2017	4	0	4
2018	13	0	13
2019	15	0	15
2020	1	18	19

\*Source: US Census Building Permits Survey

## Household Income

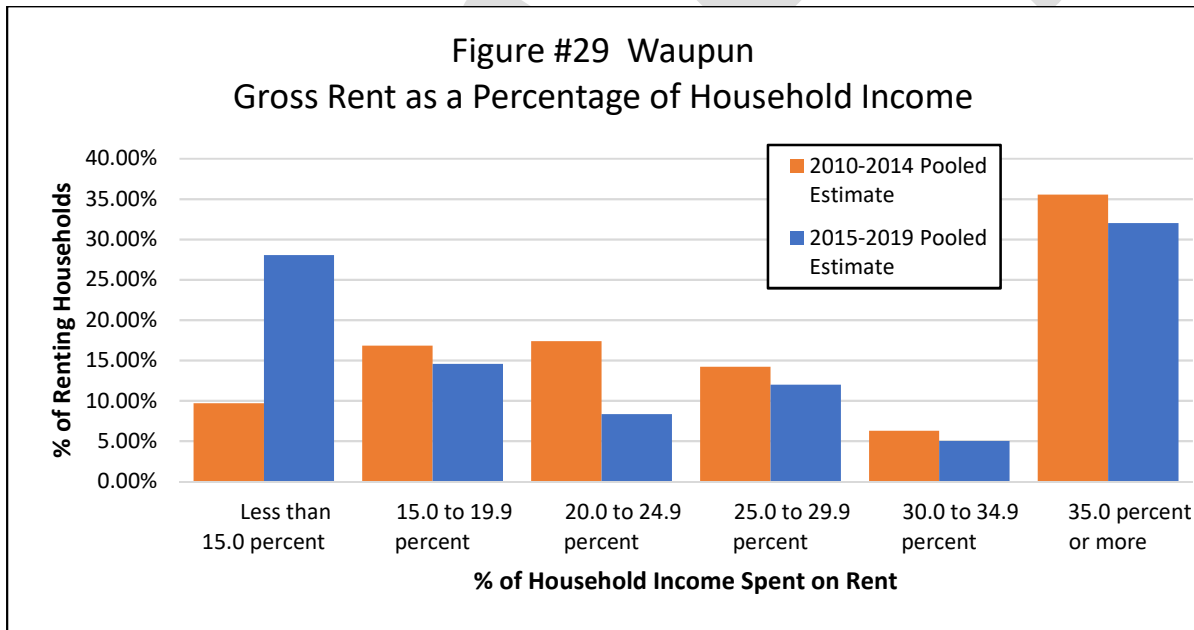
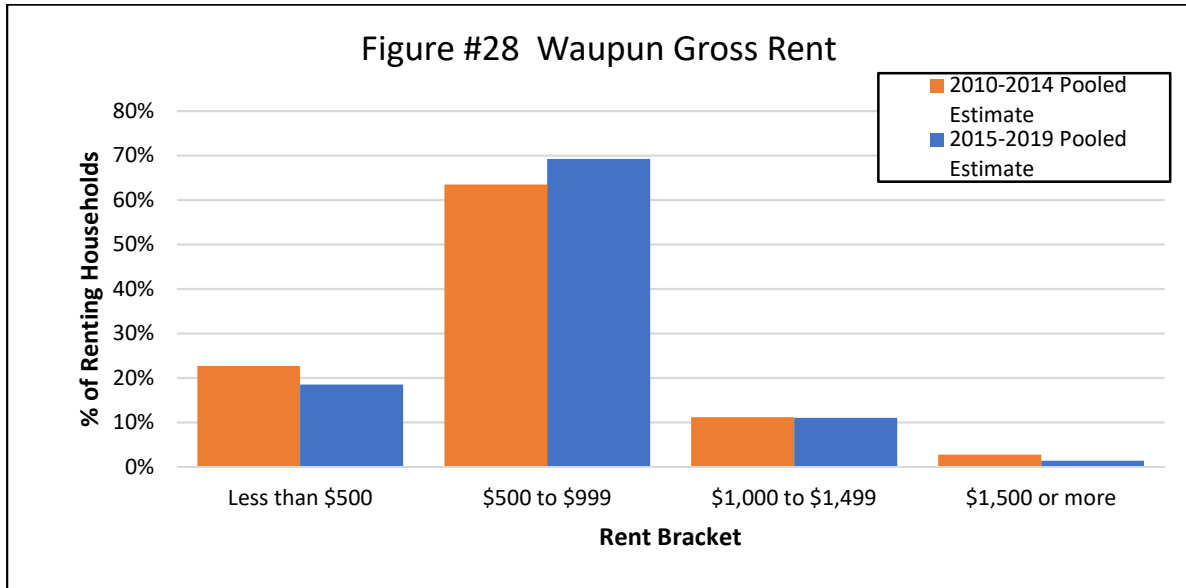
The distribution of household income in the Waupun is shown below. Household income in an area has important implications for affordability of housing, both for renter households and homeowner households.



Source: ACS 5-year estimates

Gross Rent & Gross Rent as a Percentage of Household Income

Note that the numbers are not inflation adjusted.



source: ACS 5-year estimates



### United For ALICE Households

Based on calculations from the American Community Survey and the ALICE Threshold in 2018, the Waupun had 853 households (21%) classified as ALICE and an additional 534 households (13%) fall below the Federal Poverty Level. The total number of households in 2018 The number of households in 2018 below the ALICE Threshold in Waupun is 1,387 which makes up 33% of all households in the municipality. Compared to Dodge County which had 31% of households below the ALICE Threshold, Waupun has a comparable distribution of ALICE households.

Table 88: ALICE Households in Waupun: 2018				
Total Households	Households Below the Poverty Line	ALICE Households	Total Households Below ALICE Threshold	% of Households Below ALICE Threshold
4,144	534	853	1,387	33%

*\*Source: United For ALICE 2018, US Census Bureau ACS 5-year estimates*

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### Projected Household and Housing Unit Growth

Housing unit growth has been slow over the last ten years. According to the ACS, 88 units have been built in Waupun since 2010. This low increase in new housing supply can be partially contributed to the housing crash in 2008 and recent suppressed household growth rates. The recent low rates of construction are not adequate to keep up with projected household growth over the next ten years.

Household population growth projections can be used to estimate the future demand for new housing units. The Wisconsin Department of Administration (DOA) household growth projections, which were completed in 2013 using 2010 census data, provide an estimate for the projected increase in the number of households in Waupun between the years 2020 to 2030. The DOA projected that households in Waupun will increase by 32 from 2020-2030. The DOA's household population projection was accurate for Juneau over the last ten years.

If the number of new housing units built from 2020-2030 mirrors the number of housing units built since 2010, Waupun is on track to have a housing shortage of 234 units. This projection assumes the number household will grow according to DOA projections, and that new housing construction and home vacancy rates remain relatively constant. As the number of households in Waupun continues to increase, the current available housing supply will become further depleted as new construction rates fall short of keeping up with demand. Households unable to find adequate available housing in Waupun may begin to expand their search beyond the municipality to find housing that meets their needs. This outlook indicates that home prices will continue to rise and the number of homes available for-sale on the market will continue to decrease. Buyers will have very little bargaining power which will further exacerbate the issues of supplying adequate housing, especially for Asset Limited, Income Constrained, Employed (ALICE) households.

Table 89: Waupun Housing Units and Households			
Housing Units	Household Estimate	Housing Units Built 2010-2019	Vacant Housing Units
4,526	4,301	88	225

*\*Source: ACS 5-year (2015-2019) estimate*

Table 90: Waupun Projected Household Growth			
Average Number of Housing Units Built each year 2010-2019	DOA Projection for Average Household Growth Each Year from 2020-2030	Projected Housing Shortage Per Year	Projected Housing Shortage by 2030
9	32	(23)	(234)

*\*Source: ACS 5-year (2015-2019) estimate, DOA*

## H. Village of Brownsville

### Home Sale Price

Brownsville had a high rate of home price appreciation in 2020. The estimate indicates a 56.2% increase in the median single-family home sale price from 2016 to 2020. Home values appreciated in the City of Brownsville at a faster rate compared to Dodge County as a whole. There is a good possibility that this home price appreciation is overstated due to the small size of the municipality and lack of home sales.

Year	Median Home Price	Increase from Previous Year	Total % Appreciation Since 2016
2016	\$160,000	-	-
2017	\$172,500	7.8%	7.8%
2018	\$180,650	4.7%	12.9%
2019	\$216,000	19.6%	35.0%
2020	\$249,900	15.7%	56.2%

*\*Source: Wisconsin Department of Revenue*

Year	Median Home Price	Increase from Previous Year	Total % Appreciation Since 2016
2016	\$129,000	-	-
2017	\$139,900	8.4%	8.4%
2018	\$142,000	1.5%	10.1%
2019	\$156,000	9.9%	20.9%
2020	\$171,500	9.9%	32.9%

*\*Source: Wisconsin Department of Revenue*

### Months' Inventory

The months' supply of housing in Brownsville could not be estimated with any certainty for Brownsville due to the low number of home sales each year. On average over the past five years, 11 homes are sold in Brownsville each year.

### Building Permits

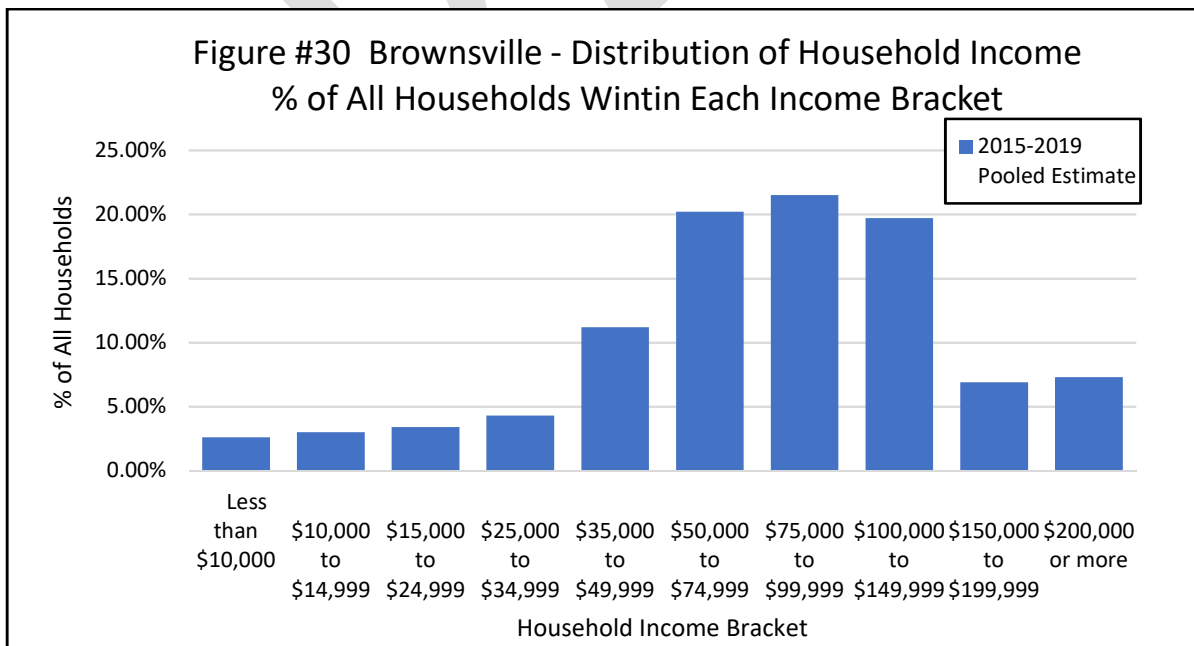
Building permits are recorded by the US Census for each municipality. In 2020, 4 total units were authorized by building permits in Brownsville.

Table 93: Brownsville Building Permits			
Year	Single-Family + Two-Family Total Units	Multifamily (3+) Total Units	Total Units Authorized by Permits
2014	0	0	0
2015	2	0	2
2016	2	0	2
2017	1	0	1
2018	5	0	5
2019	4	0	4
2020	4	0	4

\*Source: US Census Building Permits Survey

### Household Income

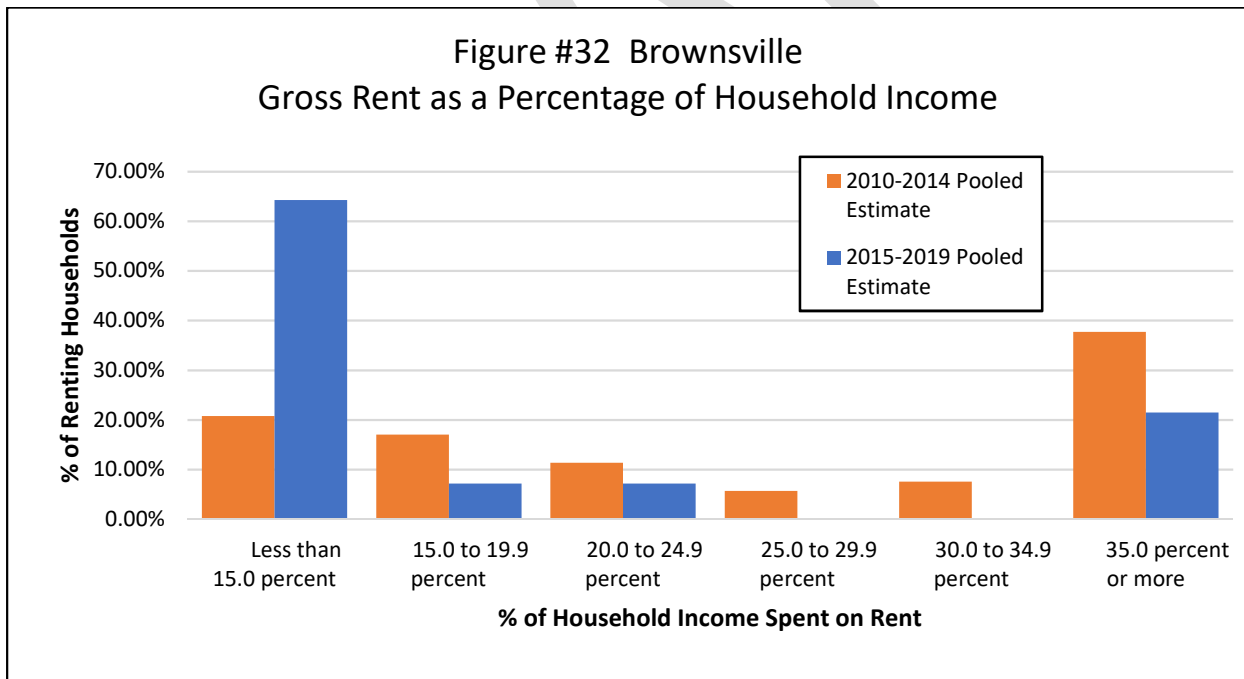
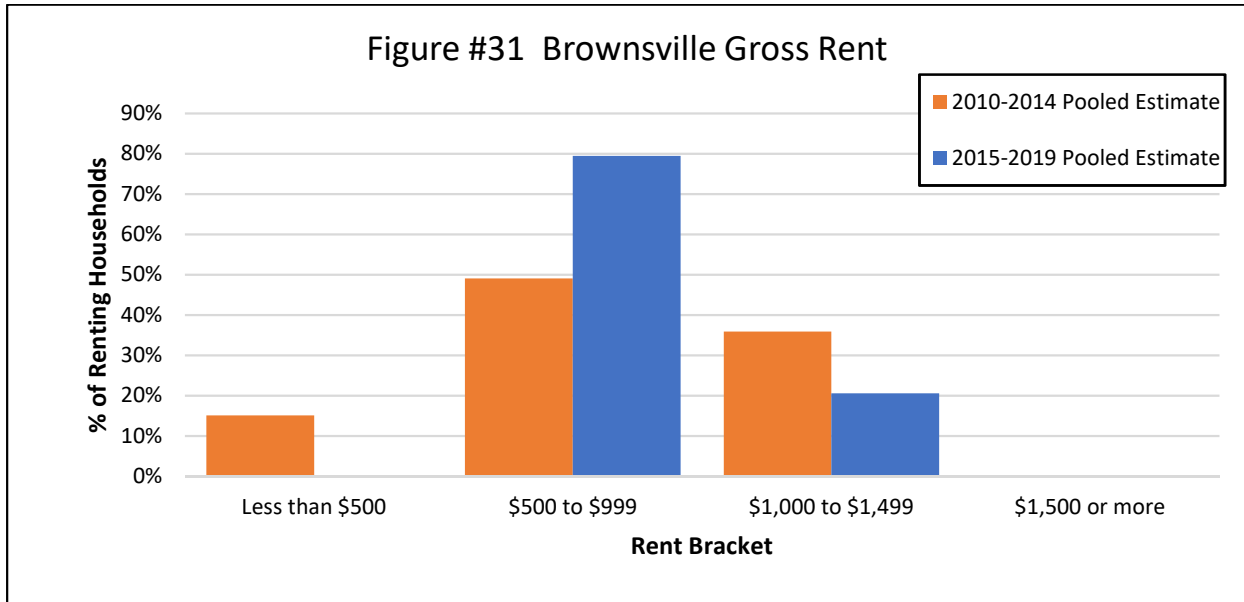
The distribution of household income for Brownsville is shown below. Household income in an area has important implications for affordability of housing, both for renter households and homeowner households.



\*source: ACS 5-year estimates

### Gross Rent & Gross Rent as a Percentage of Household Income

Brownsville has a low number of renting households (estimated by the ACS at 34 households in 2019). Any interpretation of the ACS rent data cannot be made with any certainty. Note that the data is not inflation adjusted.



\*source: ACS 5-year estimates

### United For ALICE Households

Based on calculations from the American Community Survey and the ALICE Threshold in 2018, Brownsville had 22 households (9%) classified as ALICE and an additional 10 households (4%) fall below the Federal Poverty Level. The total number of households in 2018 below the ALICE Threshold in Brownsville is 32 which makes up 13% of all households in the municipality. Compared to Dodge County which had 31% of households below the ALICE Threshold, Brownsville has a lower concentration of ALICE households.

Table 94: ALICE Households in Brownsville: 2018				
Total Households	Households Below the Poverty Line	ALICE Households	Total Households Below ALICE Threshold	% of Households Below ALICE Threshold
238	10	22	32	13%

*\*Source: United For ALICE 2018, US Census Bureau ACS 5-year estimates*

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### Projected Household and Housing Unit Growth

Housing unit growth has been low over the last ten years. According to the ACS, 0 units have been built in Brownsville since 2010. This low increase in new housing supply can be partially contributed to the recession and recent suppressed household growth rates. The recent low rates of construction are not adequate to keep up with projected household growth over the next ten years. If new housing unit construction continues at this slow pace, population will not grow.

Household population growth projections can be used to estimate the future demand for new housing units. The Wisconsin Department of Administration (DOA) household growth projections, which were completed in 2013 using 2010 census data, provide an estimate for the projected increase in the number of households in Brownsville between the years 2020 to 2030. The DOA projected that households in Brownsville will increase by 26 from 2020-2030. However, the DOA projections have overestimated household growth over recent years. If the DOA's projection is adjusted to reflect current household estimates, it indicates that households in Brownsville will grow by 24 households between 2020 and 2030.

If the number of new housing units built from 2020-2030 mirrors the number of housing units built since 2010, Brownsville is on track to have a housing shortage of 24 units. This projection assumes the number household will grow according to DOA projections, and that new housing construction and home vacancy rates remain relatively constant. As the number of households in Brownsville continues to increase, the current available housing supply will become further depleted as new construction rates fall short of keeping up with demand. Households unable to find adequate available housing in Brownsville may begin to expand their search beyond the municipality to find housing that meets their needs. This outlook indicates that home prices will continue to rise and the number of homes available for-sale on the market will continue to decrease. Buyers will have very little bargaining power which will further exacerbate the issues of supplying adequate housing, especially for Asset Limited, Income Constrained, Employed (ALICE) households.

Table 95: Brownville Housing Units and Households			
Housing Units	Household Estimate	Housing Units Built 2010-2019	Vacant Housing Units
241	233	0	8

*\*Source: ACS 5-year (2015-2019) estimate*

Table 96: Brownville Projected Household Growth			
Average Number of Housing Units Built each year 2010-2019	Adjusted DOA Projection for Average Household Growth Each Year from 2020-2030	Projected Housing Shortage Per Year	Projected Housing Shortage by 2030
0	2	(2)	(24)

*\*Source: ACS 5-year (2015-2019) estimate, DOA*

## I. Village of Hustisford

### Home Sale Price

Hustisford had a high rate of home price appreciation over the last few years. The estimate indicates a 26.8% increase in the median single-family home sale price from 2016 to 2020. Home values appreciated in Hustisford at a lower rate compared to Dodge County as a whole.

Table 97: Hustisford Median Close Price			
Year	Median Home Price	Increase from Previous Year	Total % Appreciation Since 2016
2016	\$130,000	-	-
2017	\$132,000	1.5%	1.5%
2018	\$132,500	0.4%	1.9%
2019	\$164,000	23.8%	26.2%
2020	\$164,900	0.5%	26.8%

\*Source: Wisconsin Department of Revenue

Table 98: Dodge County Median Close Price			
Year	Median Home Price	Increase from Previous Year	Total % Appreciation Since 2016
2016	\$129,000	-	-
2017	\$139,900	8.4%	8.4%
2018	\$142,000	1.5%	10.1%
2019	\$156,000	9.9%	20.9%
2020	\$171,500	9.9%	32.9%

\*Source: Wisconsin Department of Revenue

### Months' Inventory

The data was very limited for Hustisford and the Months' Inventory could not be calculated with any accuracy beyond 2017. Home sales have remained relatively constant around 20 homes sold each year.

Table 99: Hustisford Months' Inventory: Single-Family						
	Homes Sold	Months	Average # of Homes Sold Per Month	Average # of Homes Available to be Sold	Months' Supply of Housing	Absorption Rate
2016	19	12	1.6	23	14.42	6.9%
2017	26	12	2.2	17	7.62	13.1%
2018	22	12	1.8	-	-	-
2019	17	12	1.4	-	-	-
2020	19	12	1.6	-	-	-

\*Source: Realtor.com and Wisconsin Department of Revenue



### Building Permits

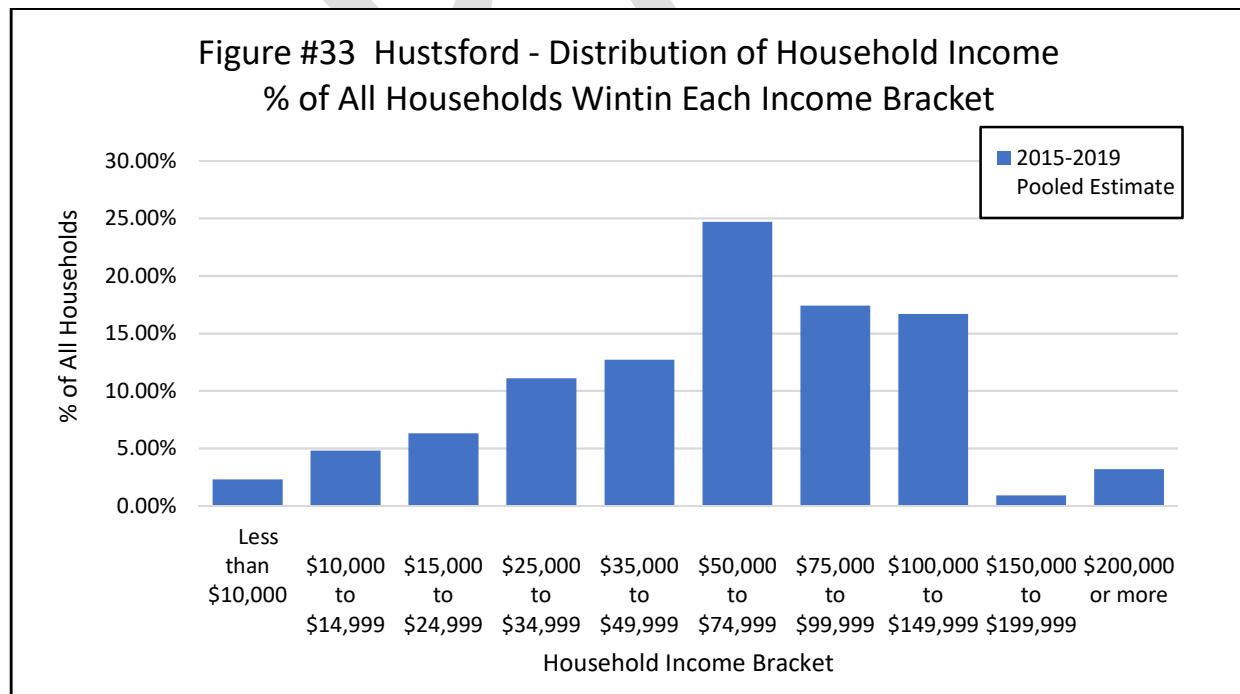
Building permits are recorded by the US Census for each municipality. In 2020, 1 unit was authorized by building permits in Hustisford.

Table 100: Hustisford Building Permits			
Year	Single-Family + Two-Family Total Units	Multifamily (3+) Total Units	Total Units Authorized by Permits
2014	2	0	2
2015	2	0	2
2016	0	0	0
2017	1	0	1
2018	1	0	1
2019	0	0	0
2020	1	0	1

\*Source: US Census Building Permits Survey

### Household Income

The distribution of household income for Hustisford is shown below (Figure #28). Household income in an area has important implications for affordability of housing, both for renter households and homeowner households.

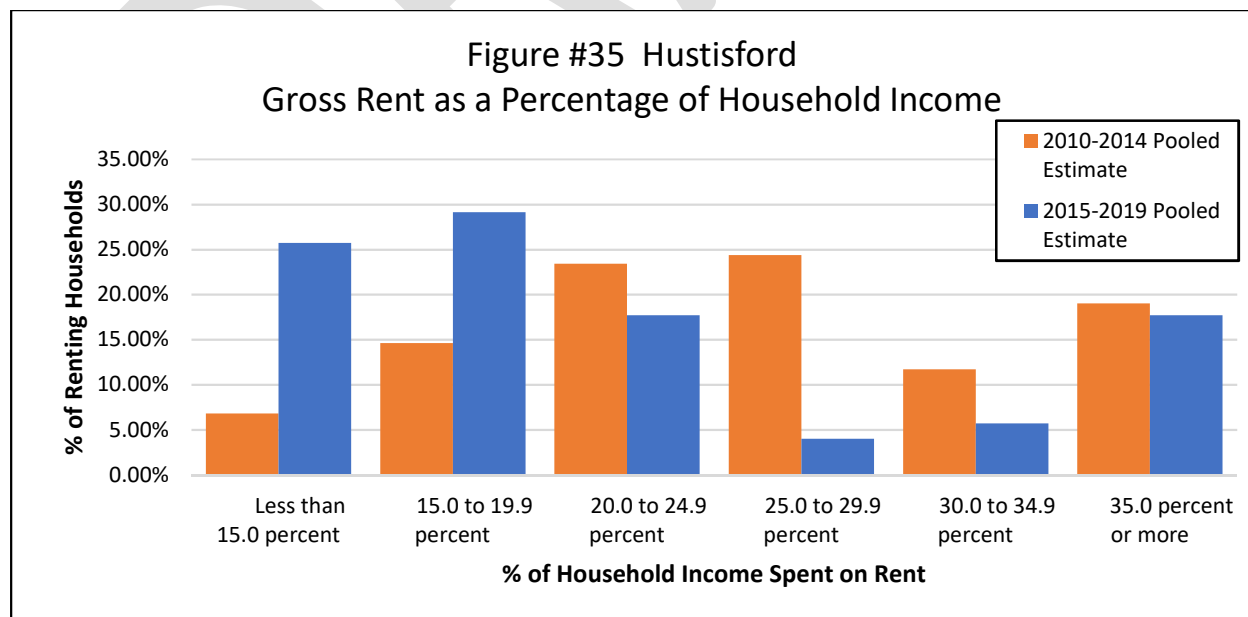
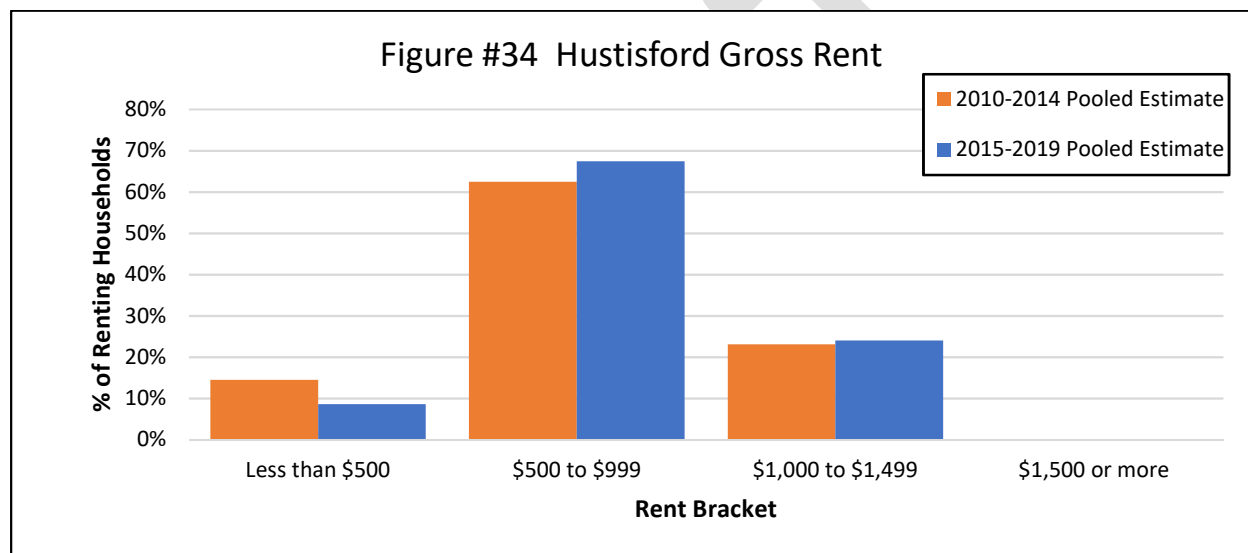


source: ACS 5-year estimates

### Gross Rent & Gross Rent as a Percentage of Household Income

There is evidence that the distribution of gross rent shifted from the first half of the decade to the second half of the decade. As can be seen in the graph below, a larger proportion of renters paid \$500-\$999 in the late 2010's than in the early 2010's. Note that the data is not inflation adjusted.

Gross rent as a percentage of household income also changed. Counterintuitively, despite Gross Rent increasing across Hustisford, there's evidence that more renter households paid a smaller percentage of their income in the latter half of the 2010's than renter households in the first half of the 2010's. Part of this can be attributed to the small amount of renter households within Hustisford as a whole. Only a relatively small number of additional renter households need to immigrate (or migrate) from Hustisford in order to change the distribution of affordability.



source: ACS 5-year estimates

### United For ALICE Households

Based on calculations from the American Community Survey and the ALICE Threshold in 2018, the Hustisford had 64 households (16%) classified as ALICE and an additional 33 households (8%) fall below the Federal Poverty Level. The total number of households in 2018 below the ALICE Threshold in Hustisford is 97 which makes up 24% of all households in the municipality. Compared to Dodge County which had 31% of households below the ALICE Threshold, Hustisford has a smaller distribution of ALICE households.

<b>Table 101: ALICE Households in Hustisford: 2018</b>				
Total Households	Households Below the Poverty Line	ALICE Households	Total Households Below ALICE Threshold	% of Households Below ALICE Threshold
404	33	64	97	24%

*\*Source: United For ALICE 2018, US Census Bureau ACS 5-year estimates*

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### Projected Household and Housing Unit Growth

Housing unit growth has been stagnant over the last ten years which is not surprising considering Hustisford's size. According to the ACS, 5 units have been built in Hustisford since 2010. This low increase in new housing supply can be partially contributed to the housing crash in 2008 and recent suppressed household growth rates. The recent low rates of construction are not adequate to keep up with projected household growth over the next ten years.

Household population growth projections can be used to estimate the future demand for new housing units. The Wisconsin Department of Administration (DOA) household growth projections, which were completed in 2013 using 2010 census data, provide an estimate for the projected increase in the number of households in Hustisford between the years 2020 to 2030. The DOA projected that households in Hustisford will increase by 33 from 2020-2030. However, the DOA projections have overestimated household growth over recent years. If the DOA's projection is adjusted to reflect current household estimates, it indicates that households in Hustisford will grow by 28 households between 2020 and 2030.

If the number of new housing units built from 2020-2030 mirrors the number of housing units built since 2010, Hustisford is on track to have a housing shortage of 23 units. This projection assumes the number household will grow according to DOA projections, and that new housing construction and home vacancy rates remain relatively constant. As the number of households in Hustisford continues to increase, the current available housing supply will become further depleted as new construction rates fall short of keeping up with demand. Households unable to find adequate available housing in Hustisford may begin to expand their search beyond the municipality to find housing that meets their needs. This outlook indicates that home prices will continue to rise and the number of homes available for-sale on the market will continue to decrease. Buyers will have very little bargaining power which will further exacerbate the issues of supplying adequate housing, especially for Asset Limited, Income Constrained, Employed (ALICE) households.

Table 102: Hustisford Housing Units and Households			
Housing Units	Household Estimate	Housing Units Built 2010-2019	Vacant Housing Units
4,526	442	5	50

\*Source: ACS 5-year (2015-2019) estimate

Table 103: Hustisford Projected Household Growth			
Average Number of Housing Units Built each year 2010-2019	Adjusted DOA Projection for Average Household Growth Each Year from 2020-2030	Projected Housing Shortage Per Year	Projected Housing Shortage by 2030
1	3	(2)	(23)

\*Source: ACS 5-year (2015-2019) estimate, DOA

## J. Village of Lomira

### Home Sale Price

Lomira had a high rate of home price appreciation in 2020. The estimate indicates a 25.2% increase in the median single-family home sale price from 2016 to 2020. Home values appreciated in the City of Lomira at a slower rate compared to Dodge County as a whole.

Year	Median Home Price	Increase from Previous Year	Total % Appreciation Since 2016
2016	\$167,750	-	-
2017	\$162,500	-3.1%	-3.1%
2018	\$168,000	3.4%	0.1%
2019	\$189,000	12.5%	12.7%
2020	\$210,000	11.1%	25.2%

*\*Source: Wisconsin Department of Revenue*

Year	Median Home Price	Increase from Previous Year	Total % Appreciation Since 2016
2016	\$129,000	-	-
2017	\$139,900	8.4%	8.4%
2018	\$142,000	1.5%	10.1%
2019	\$156,000	9.9%	20.9%
2020	\$171,500	9.9%	32.9%

*\*Source: Wisconsin Department of Revenue*

### Months' Inventory

The months' supply of housing in Lomira could not be estimated with any certainty for Lomira due to the low number of home sales each year. On average over the past five years, 26 homes are sold in Lomira each year.

### Building Permits

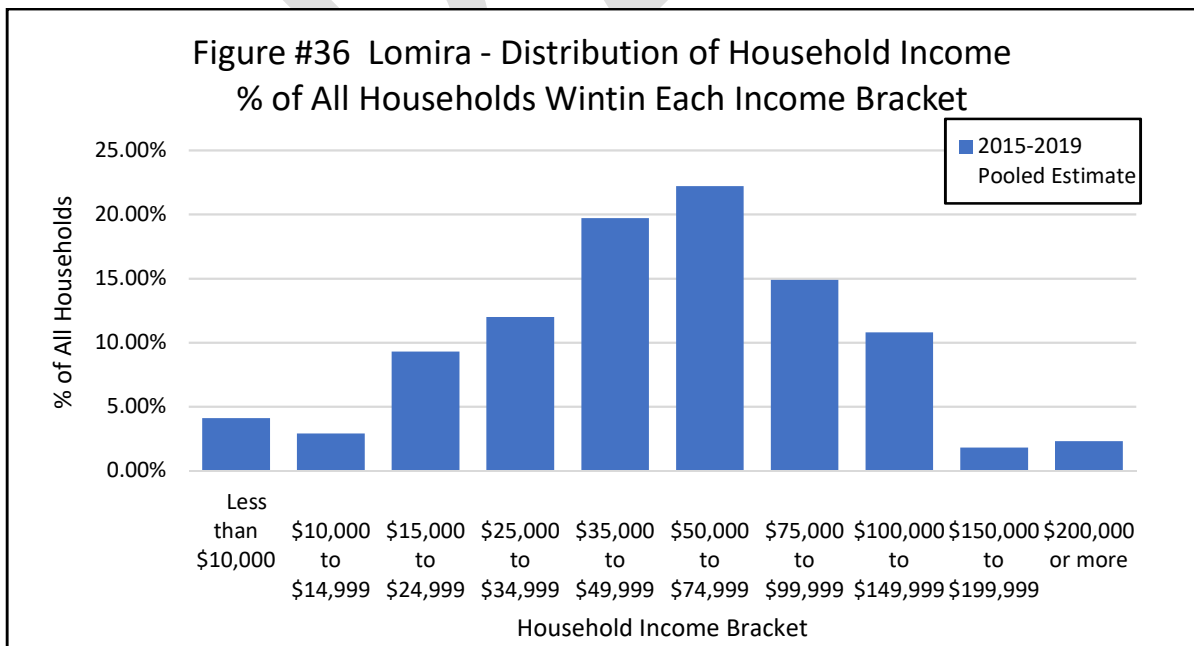
Building permits are recorded by the US Census for each municipality. In 2020, 7 total units were authorized by building permits in Lomira.

Table 106: Lomira Building Permits			
Year	Single-Family + Two-Family Total Units	Multifamily (3+) Total Units	Total Units Authorized by Permits
2014	3	0	3
2015	4	0	4
2016	5	0	5
2017	49	0	49
2018	0	0	0
2019	2	12	14
2020	7	0	7

\*Source: US Census Building Permits Survey

### Household Income

The distribution of household income for Lomira is shown below. Household income in an area has important implications for affordability of housing, both for renter households and homeowner households.

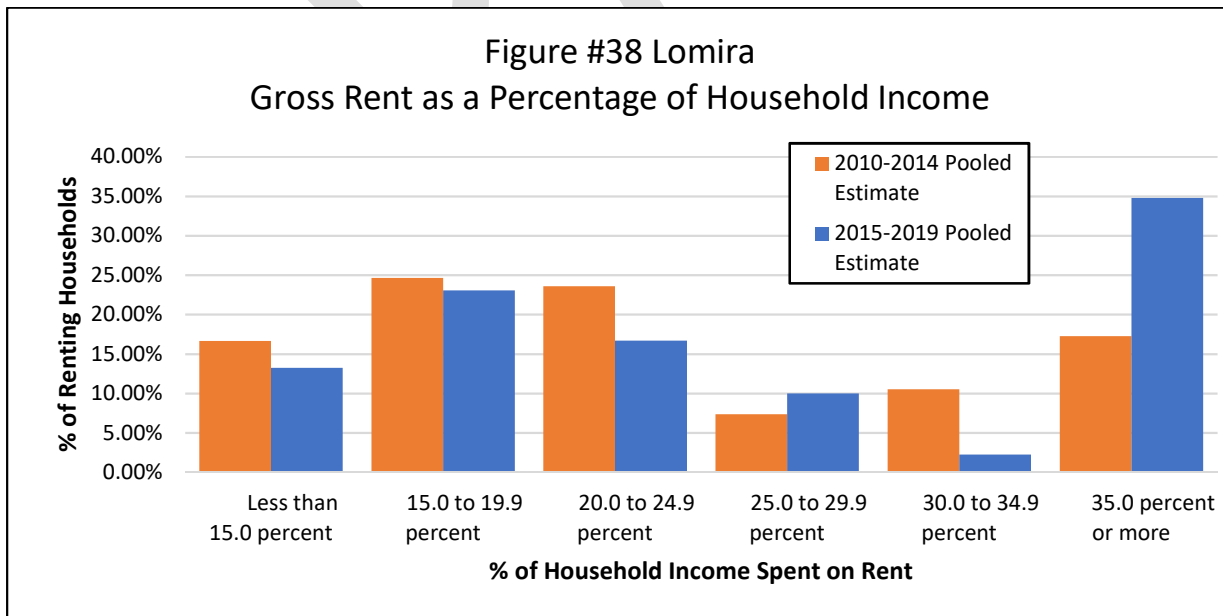
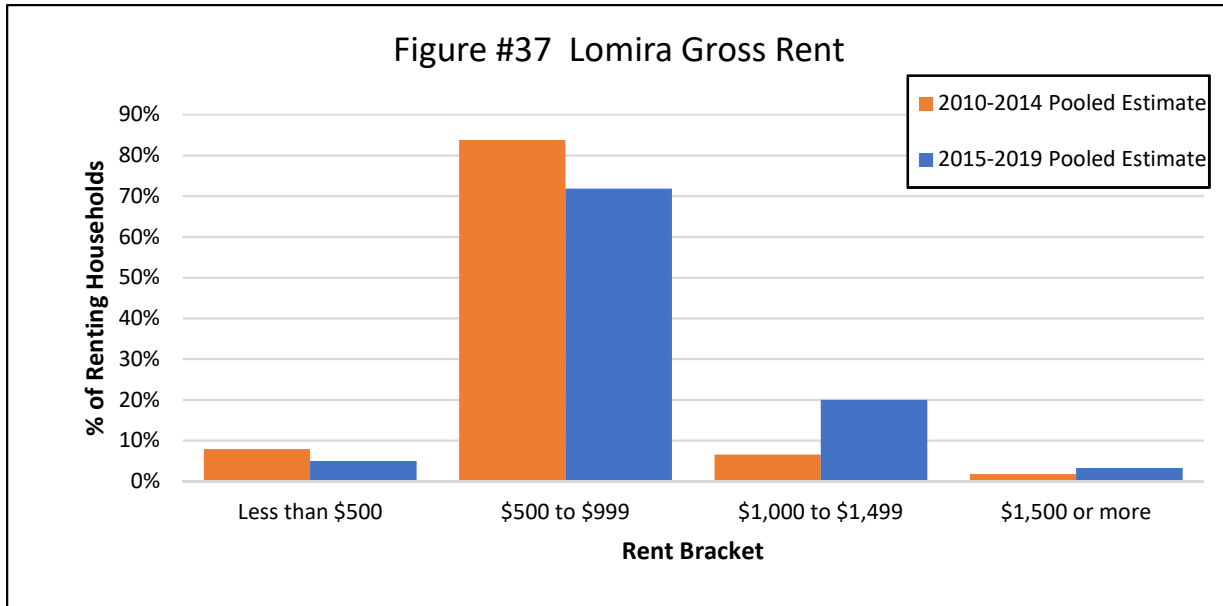


\*source: ACS 5-year estimates

### Gross Rent & Gross Rent as a Percentage of Household Income

There is evidence that the distribution of gross rent shifted from the first half of the decade to the second half of the decade. A larger proportion of renters paid \$1000-\$1499 in the late 2010's than in the early 2010's, and a smaller proportion of renters paid \$500-\$999 in the late 2010's as compared to the early 2010's (Figure #16). Note that the data is not inflation adjusted.

Gross rent as a percentage of household income also changed and indicates a decrease in affordability.



\*source: ACS 5-year estimates

### United For ALICE Households

Based on calculations from the American Community Survey and the ALICE Threshold in 2018, Lomira had 270 households (24%) classified as ALICE and an additional 128 households (12%) fall below the Federal Poverty Level. The total number of households in 2018 below the ALICE Threshold in Lomira is 398 which makes up 36% of all households in the municipality. Compared to Dodge County which had 31% of households below the ALICE Threshold, Lomira has a higher concentration of ALICE households.

Table 107: ALICE Households in Lomira: 2018				
Total Households	Households Below the Poverty Line	ALICE Households	Total Households Below ALICE Threshold	% of Households Below ALICE Threshold
1,107	128	270	398	36%

*\*Source: United For ALICE 2018, US Census Bureau ACS 5-year estimates*

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### Projected Household and Housing Unit Growth

Housing unit growth has been low over the last ten years. According to the ACS, 127 units have been built in Lomira since 2010. This low increase in new housing supply can be partially contributed to the recession and recent suppressed household growth rates. The recent low rates of construction are barely adequate to keep up with projected household growth over the next ten years. If new housing unit construction continues at this slow pace, population will not grow.

Household population growth projections can be used to estimate the future demand for new housing units. The Wisconsin Department of Administration (DOA) household growth projections, which were completed in 2013 using 2010 census data, provide an estimate for the projected increase in the number of households in Lomira between the years 2020 to 2030. The DOA projected that households in Lomira will increase by 136 from 2020-2030. However, the DOA projections have overestimated household growth over recent years. If the DOA's projection is adjusted to reflect current household estimates, it indicates that households in Lomira will grow by 128 households between 2020 and 2030.

If the number of new housing units built from 2020-2030 mirrors the number of housing units built since 2010, Lomira is on track to just meet projected housing demand. This projection assumes the number household will grow according to DOA projections, and that new housing construction and home vacancy rates remain relatively constant. As the number of households in Lomira continues to increase, the current available housing supply will become further depleted if new construction rates fall short of keeping up with demand. Households unable to find adequate available housing in Lomira may begin to expand their search beyond the municipality to find housing that meets their needs. This outlook indicates that home prices will continue to rise and the number of homes available for-sale on the market will remain low. Buyers will have very little bargaining power which will further exacerbate the issues of supplying adequate housing, especially for Asset Limited, Income Constrained, Employed (ALICE) households.

Table 108: Lomira Housing Units and Households			
Housing Units	Household Estimate	Housing Units Built 2010-2019	Vacant Housing Units
1,143	1,104	127	39

\*Source: ACS 5-year (2015-2019) estimate

Table 109: Lomira Projected Household Growth			
Average Number of Housing Units Built each year 2010-2019	Adjusted DOA Projection for Average Household Growth Each Year from 2020-2030	Projected Housing Shortage Per Year	Projected Housing Shortage by 2030
13	13	(0)	(1)

\*Source: ACS 5-year (2015-2019) estimate, DOA

## K. Village of Theresa

### Home Sale Price

Theresa had a high rate of home price appreciation in 2020. The estimate indicates a 25.8% increase in the median single-family home sale price from 2016 to 2020. Home values appreciated in the City of Theresa at a lower rate compared to Dodge County as a whole.

Year	Median Home Price	Increase from Previous Year	Total % Appreciation Since 2016
2016	\$124,900	-	-
2017	\$137,568	10.1%	10.1%
2018	\$141,000	2.5%	12.9%
2019	\$149,075	5.7%	19.4%
2020	\$157,150	5.4%	25.8%

*\*Source: Wisconsin Department of Revenue*

Year	Median Home Price	Increase from Previous Year	Total % Appreciation Since 2016
2016	\$129,000	-	-
2017	\$139,900	8.4%	8.4%
2018	\$142,000	1.5%	10.1%
2019	\$156,000	9.9%	20.9%
2020	\$171,500	9.9%	32.9%

*\*Source: Wisconsin Department of Revenue*

### Months' Inventory

The months' supply of housing in Theresa could not be estimated with any certainty for Theresa due to the low number of home sales each year. On average over the past five years, 14 homes are sold in Theresa each year.

## Building Permits

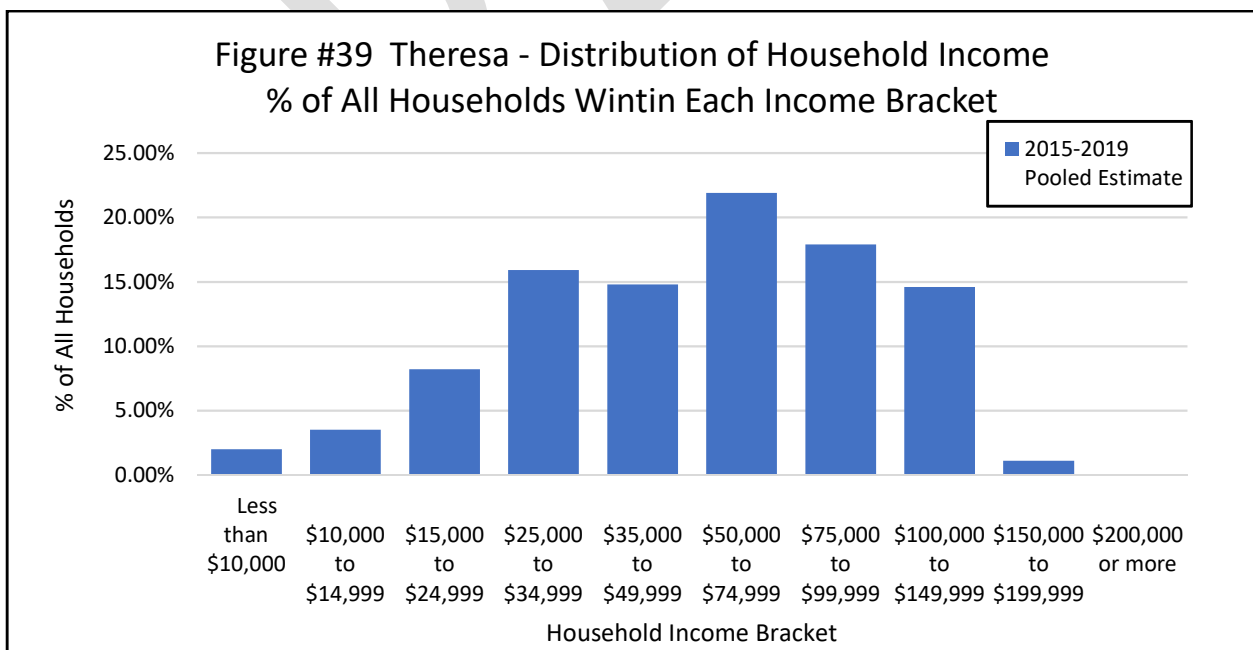
Building permits are recorded by the US Census for each municipality. In 2020, 3 total units were authorized by building permits in Theresa.

Table 112: Theresa Building Permits			
Year	Single-Family + Two-Family Total Units	Multifamily (3+) Total Units	Total Units Authorized by Permits
2014	0	0	0
2015	3	0	3
2016	0	0	0
2017	1	0	1
2018	0	0	0
2019	1	0	1
2020	3	0	3

\*Source: US Census Building Permits Survey

## Household Income

The distribution of household income for Theresa is shown below. Household income in an area has important implications for affordability of housing, both for renter households and homeowner households.

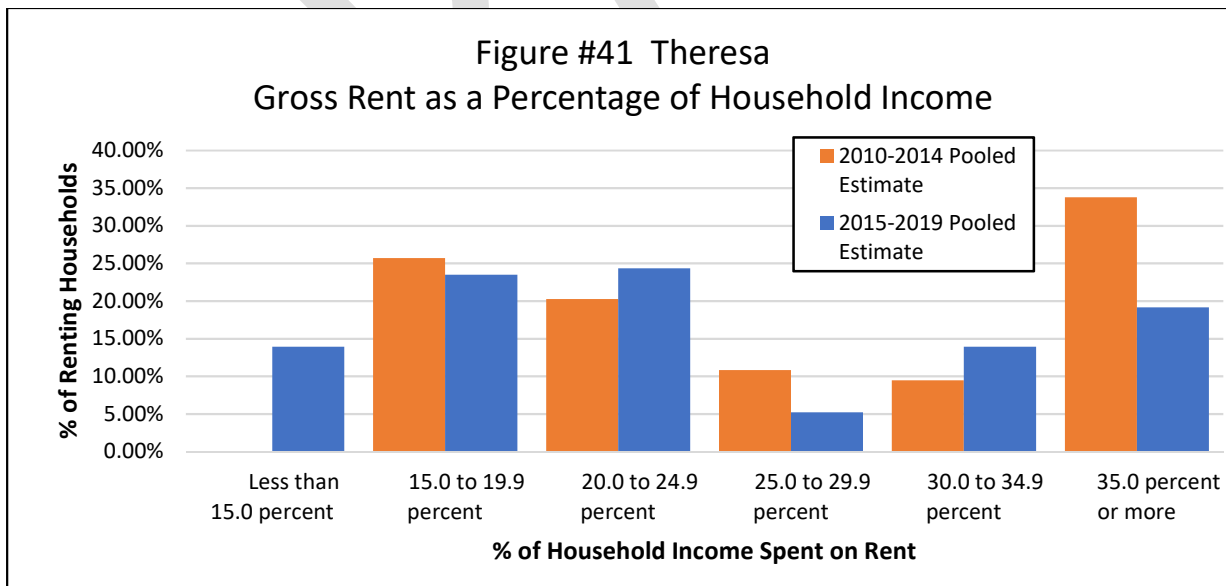
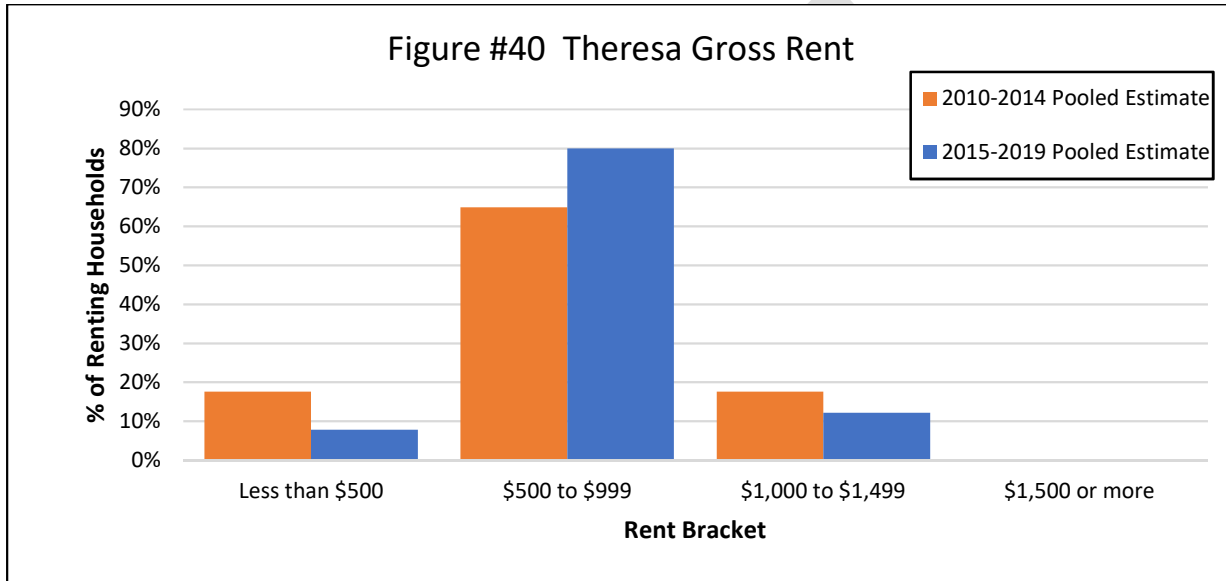


\*source: ACS 5-year estimates

### Gross Rent & Gross Rent as a Percentage of Household Income

There is some evidence that the distribution of gross rent shifted from the first half of the decade to the second half of the decade. A larger proportion of renters paid \$500-\$999 in the late 2010's than in the early 2010's, and a smaller proportion of renters paid less than \$500 in the late 2010's as compared to the early 2010's (Figure #16). Theresa has a low number of renting households (estimated by the ACS at 115 households in 2019). Interpretation of the ACS rent data should be considered with some skepticism. Note that the data is not inflation adjusted.

Gross rent as a percentage of household income also changed and indicates improved affordability.



\*source: ACS 5-year estimates

United For ALICE Households

Based on calculations from the American Community Survey and the ALICE Threshold in 2018, Theresa had 132 households (25%) classified as ALICE and an additional 31 households (6%) fall below the Federal Poverty Level. The total number of households in 2018 below the ALICE Threshold in Theresa is 163 which makes up 31% of all households in the municipality. Compared to Dodge County which had 31% of households below the ALICE Threshold, Theresa has an identical concentration of ALICE households.

Table 113: ALICE Households in Theresa: 2018				
Total Households	Households Below the Poverty Line	ALICE Households	Total Households Below ALICE Threshold	% of Households Below ALICE Threshold
519	31	132	163	31%

*\*Source: United For ALICE 2018, US Census Bureau ACS 5-year estimates*

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### Projected Household and Housing Unit Growth

Housing unit growth has been low over the last ten years. According to the ACS, 5 units have been built in Theresa since 2010. This low increase in new housing supply can be partially contributed to the recession and recent suppressed household growth rates. The recent low rates of construction are not adequate to keep up with projected household growth over the next ten years. If new housing unit construction continues at this slow pace, population will not grow.

Household population growth projections can be used to estimate the future demand for new housing units. The Wisconsin Department of Administration (DOA) household growth projections, which were completed in 2013 using 2010 census data, provide an estimate for the projected increase in the number of households in Theresa between the years 2020 to 2030. The DOA projected that households in Theresa will increase by 63 from 2020-2030. However, the DOA projections have overestimated household growth over recent years. If the DOA's projection is adjusted to reflect current household estimates, it indicates that households in Theresa will grow by 56 households between 2020 and 2030.

If the number of new housing units built from 2020-2030 mirrors the number of housing units built since 2010, Theresa is on track to have a housing shortage of 51 units. This projection assumes the number household will grow according to DOA projections, and that new housing construction and home vacancy rates remain relatively constant. As the number of households in Theresa continues to increase, the current available housing supply will become further depleted as new construction rates fall short of keeping up with demand. Households unable to find adequate available housing in Theresa may begin to expand their search beyond the municipality to find housing that meets their needs. This outlook indicates that home prices will continue to rise and the number of homes available for-sale on the market will continue to decrease. Buyers will have very little bargaining power which will further exacerbate the issues of supplying adequate housing, especially for Asset Limited, Income Constrained, Employed (ALICE) households.

**Table 114: Theresa Housing Units and Households**

Housing Units	Household Estimate	Housing Units Built 2010-2019	Vacant Housing Units
576	547	5	29

*\*Source: ACS 5-year (2015-2019) estimate*

**Table 115: Theresa Projected Household Growth**

Average Number of Housing Units Built each year 2010-2019	Adjusted DOA Projection for Average Household Growth Each Year from 2020-2030	Projected Housing Shortage Per Year	Projected Housing Shortage by 2030
1	6	(5)	(51)

*\*Source: ACS 5-year (2015-2019) estimate, DOA*

## L. Township of Ashippun

### Home Sale Price

The Town of Ashippun had a high rate of home price appreciation in 2020. The estimate indicates a 34.3% increase in the median single-family home sale price from 2016 to 2020. Home values appreciated in the Town of Ashippun at a similar rate compared to Dodge County as a whole.

Table 116: Town of Ashippun Median Close Price			
Year	Median Home Price	Increase from Previous Year	Total % Appreciation Since 2016
2016	\$247,500	-	-
2017	\$280,000	13.1%	13.1%
2018	\$280,000	0.0%	13.1%
2019	\$290,000	3.6%	17.2%
2020	\$332,500	14.7%	34.3%

*\*Source: Wisconsin Department of Revenue*

Table 117: Dodge County Median Close Price			
Year	Median Home Price	Increase from Previous Year	Total % Appreciation Since 2016
2016	\$129,000	-	-
2017	\$139,900	8.4%	8.4%
2018	\$142,000	1.5%	10.1%
2019	\$156,000	9.9%	20.9%
2020	\$171,500	9.9%	32.9%

*\*Source: Wisconsin Department of Revenue*

### Months' Inventory

The months' supply of housing in the Town of Ashippun could not be estimated with any level of certainty due to the low number of home sales each year and limited township data. On average over the past five years, 34 homes are sold in the Town of Ashippun each year.

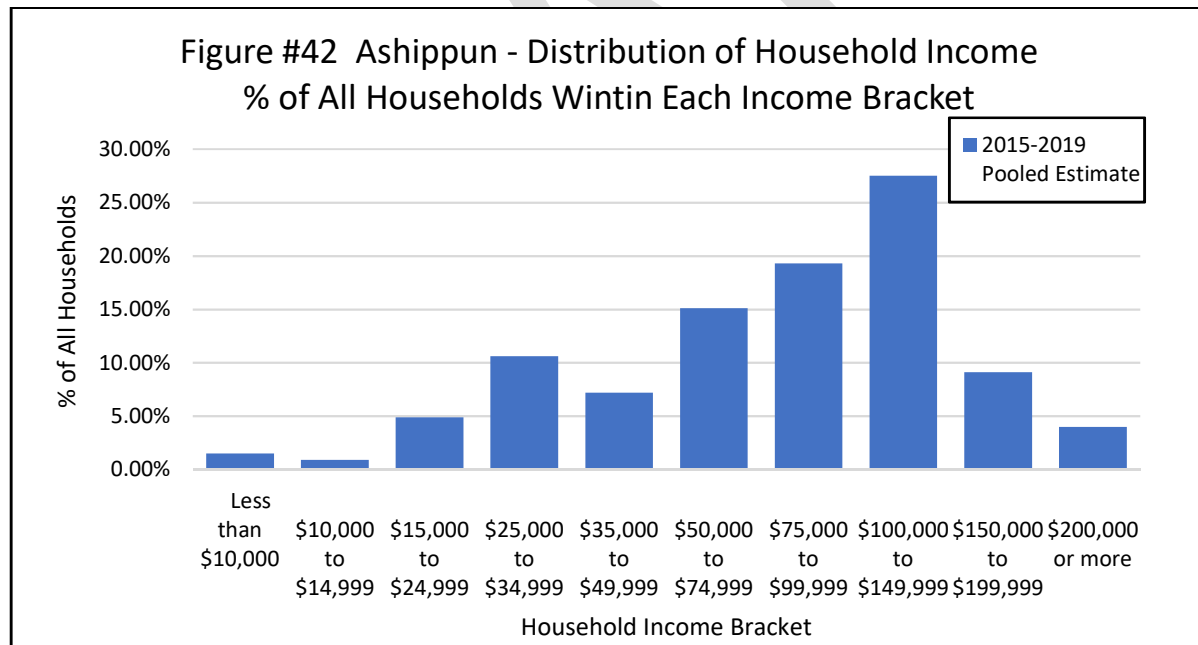
## Building Permits

Table 118: Town of Ashippun Building Permits			
Year	Single-Family + Two-Family Total Units	Multifamily (3+) Total Units	Total Units Authorized by Permits
2014	4	0	4
2015	6	0	6
2016	11	0	11
2017	11	0	11
2018	10	0	10
2019	8	0	8
2020	4	0	4

\*Source: Township of Ashippun

## Household Income

The distribution of household income for the Town of Ashippun is shown below. Household income in an area has important implications for affordability of housing, both for renter households and homeowner households.



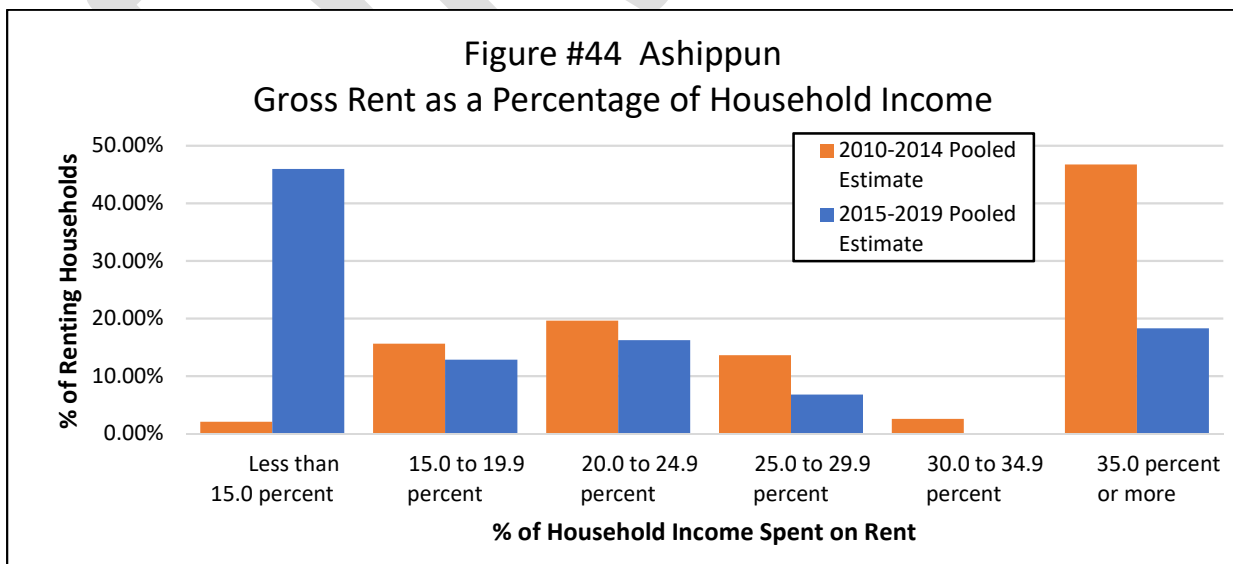
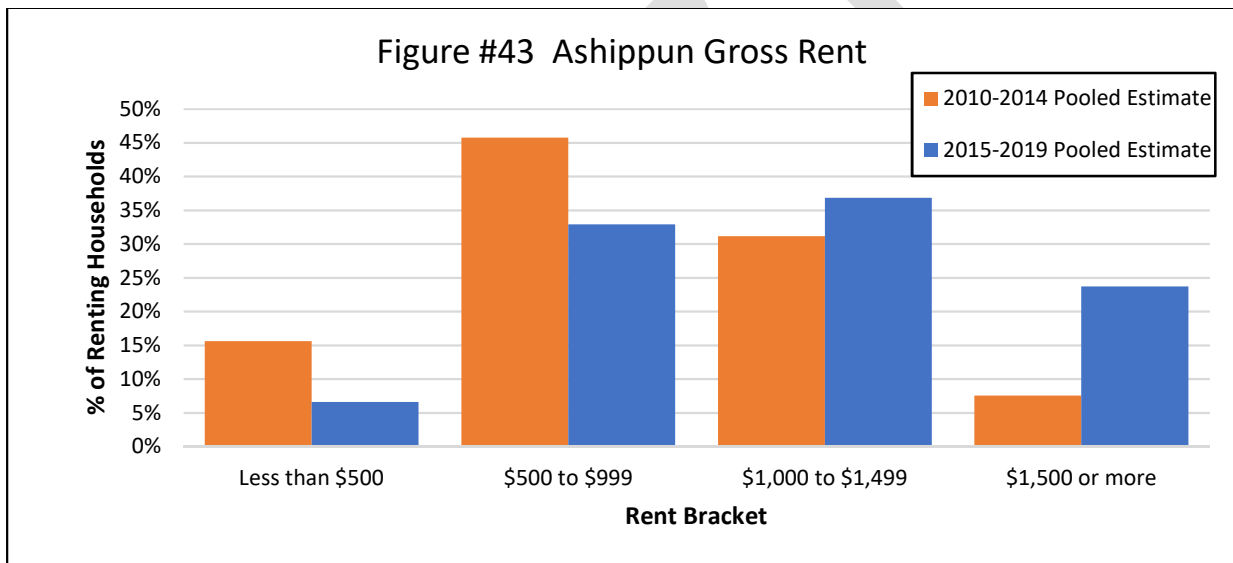
\*source: ACS 5-year estimates



### Gross Rent & Gross Rent as a Percentage of Household Income

There is evidence that the distribution of gross rent shifted from the first half of the decade to the second half of the decade. A larger proportion of renters paid \$1000-\$1499 or \$1,500+ in the late 2010's than in the early 2010's, and a smaller proportion of renters paid less than \$500 or \$500-\$999 in the late 2010's as compared to the early 2010's (Figure #16). Note that the data is not inflation adjusted.

Contrary to the shift in gross rent, gross rent as a percentage of household income suggests that rental units in the Town of Ashippun are more affordable to their occupants. Part of this can be attributed to the small amount of renter households within the Town of Ashippun as a whole. Only a relatively small number of additional renter households need to immigrate (or migrate) from the Town of Ashippun in order to change the distribution of affordability. The shift in the data may also be caused by changes in the ACS sampling methodology.



\*source: ACS 5-year estimates

### United For ALICE Households

Based on calculations from the American Community Survey and the ALICE Threshold in 2018, the Town of Ashippun had 128 households (13%) classified as ALICE and an additional 55 households (6%) fall below the Federal Poverty Level. The total number of households in 2018 below the ALICE Threshold in the Town of Ashippun is 183 which makes up 19% of all households in the municipality. Compared to Dodge County which had 31% of households below the ALICE Threshold, the Town of Ashippun has a much lower concentration of ALICE households.

Table 119: ALICE Households in Ashippun: 2018				
Total Households	Households Below the Poverty Line	ALICE Households	Total Households Below ALICE Threshold	% of Households Below ALICE Threshold
978	55	128	183	19%

*\*Source: United For ALICE 2018, US Census Bureau ACS 5-year estimates*

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### Projected Household and Housing Unit Growth

Housing unit growth has been low over the last ten years. According to the ACS, 29 units have been built in The Town of Ashippun since 2010. This low increase in new housing supply can be partially contributed to the recession and recent suppressed household growth rates. The recent low rates of construction are barely adequate to keep up with projected household growth over the next ten years. If new housing unit construction continues at this slow pace, population will not grow.

Household population growth projections can be used to estimate the future demand for new housing units. The Wisconsin Department of Administration (DOA) household growth projections, which were completed in 2013 using 2010 census data, provide an estimate for the projected increase in the number of households in The Town of Ashippun between the years 2020 to 2030. The DOA projected that households in The Town of Ashippun will increase by 138 from 2020-2030. However, the DOA projections have overestimated household growth over recent years. If the DOA's projection is adjusted to reflect current household estimates, it indicates that households in The Town of Ashippun will grow by 113 households between 2020 and 2030.

If the number of new housing units built from 2020-2030 mirrors the number of housing units built since 2010, the Town of Ashippun is on track to have a housing shortage of 84 units. This projection assumes the number household will grow according to DOA projections, and that new housing construction and home vacancy rates remain relatively constant. As the number of households in the Town of Ashippun continues to increase, the current available housing supply will become further depleted as new construction rates fall short of keeping up with demand. Households unable to find adequate available housing in the Town of Ashippun may begin to expand their search beyond the municipality to find housing that meets their needs. This outlook indicates that home prices will continue to rise and the number of homes available for-sale on the market will continue to decrease. Buyers will have very little bargaining power which will further exacerbate the issues of supplying adequate housing, especially for Asset Limited, Income Constrained, Employed (ALICE) households.

**Table 120: Ashippun Housing Units and Households**

Housing Units	Household Estimate	Housing Units Built 2010-2019	Vacant Housing Units
966	960	29	6

*\*Source: ACS 5-year (2015-2019) estimate*

**Table 121: Ashippun Projected Household Growth**

Average Number of Housing Units Built each year 2010-2019	Adjusted DOA Projection for Average Household Growth Each Year from 2020-2030	Projected Housing Shortage Per Year	Projected Housing Shortage by 2030
3	11	(8)	(84)

*\*Source: ACS 5-year (2015-2019) estimate, DOA*

## M. Township of Beaver Dam

The Town of Beaver Dam consists of a significant portion of housing in agricultural setting as well as an additional segment located on lakefront property. Note that the metrics presented in this section do not distinguish between the Town of Beaver Dam's robust diversity in its housing composition. When addressing the housing shortage in the Town of Beaver Dam, it is important to consider the diverse needs of perspective home buyers.

### Home Sale Price

The Town of Beaver Dam had an irregular rate of home price appreciation over the past five years. In 2019, the median close price increased dramatically, however, due to the low number of home sales each year, this spike in the median close price may be an outlier. It may be that a significant number of homes on lakefront property, or a reduced number of rural homes, were sold in 2019 pulling the median close price upward. The median single-family home sale price from 2016 to 2020 has increased, but at a slower rate compared to Dodge County as a whole.

Year	Median Home Price	Increase from Previous Year	Total % Appreciation Since 2016
2016	\$218,000	-	-
2017	\$218,000	0.0%	0.0%
2018	\$220,000	0.9%	0.9%
2019	\$282,000	28.2%	29.4%
2020	\$236,000	-16.3%	8.3%

*\*Source: Wisconsin Department of Revenue*

Year	Median Home Price	Increase from Previous Year	Total % Appreciation Since 2016
2016	\$129,000	-	-
2017	\$139,900	8.4%	8.4%
2018	\$142,000	1.5%	10.1%
2019	\$156,000	9.9%	20.9%
2020	\$171,500	9.9%	32.9%

*\*Source: Wisconsin Department of Revenue*

### Months' Inventory

The months' supply of housing in the Town of Beaver Dam could not be estimated with any level of certainty for the Town of Beaver Dam due to the low number of home sales each year and limited township data. On average over the past five years, 40 homes are sold in the Town of Beaver Dam each year.

### Building Permits

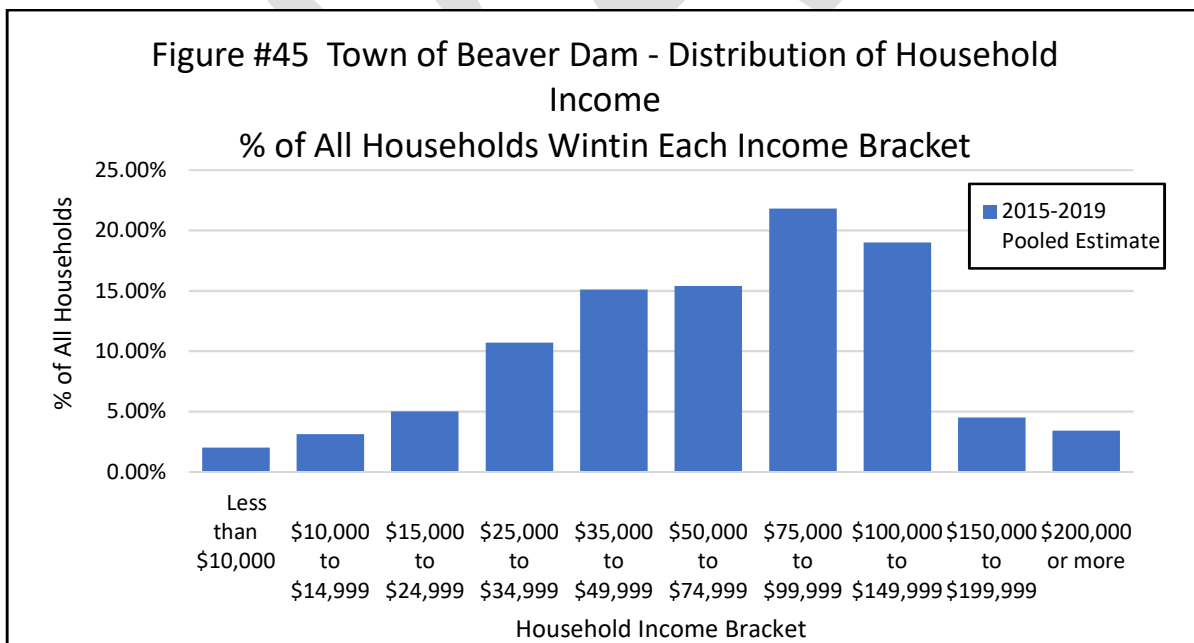
Building permits are recorded by the US Census for each municipality. In 2020, 7 total units were authorized by building permits in the Town of Beaver Dam.

Table 124: Town of Beaver Dam Building Permits			
Year	Single-Family + Two-Family Total Units	Multifamily (3+) Total Units	Total Units Authorized by Permits
2014	7	0	7
2015	8	0	8
2016	11	0	11
2017	10	0	10
2018	14	0	14
2019	11	0	11
2020	7	0	7

\*Source: US Census Building Permits Survey

### Household Income

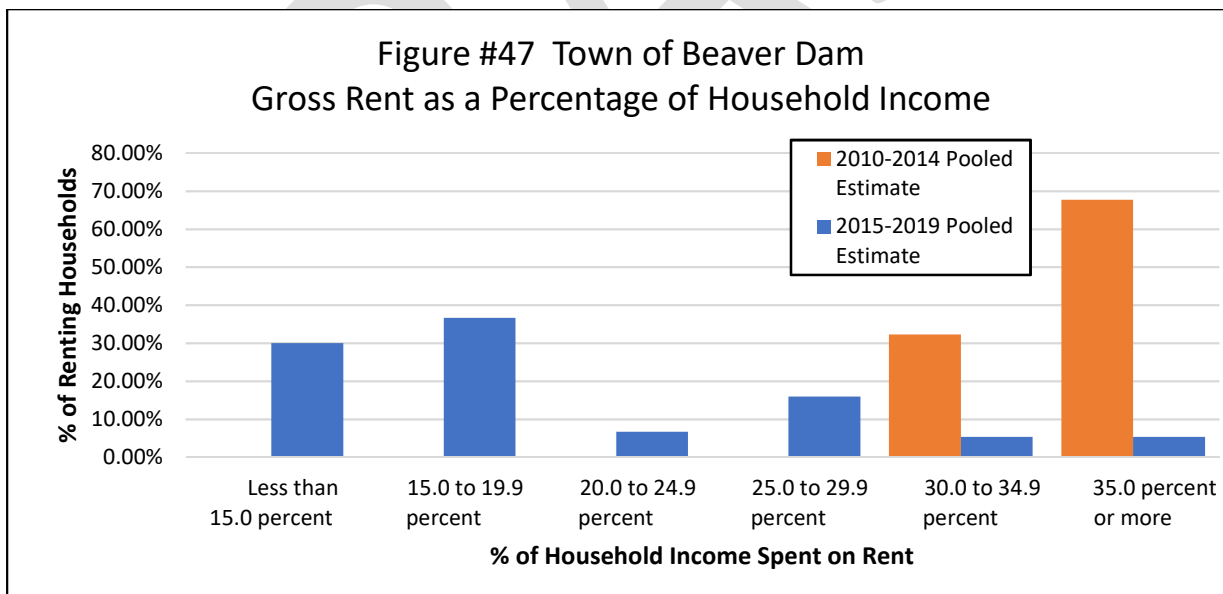
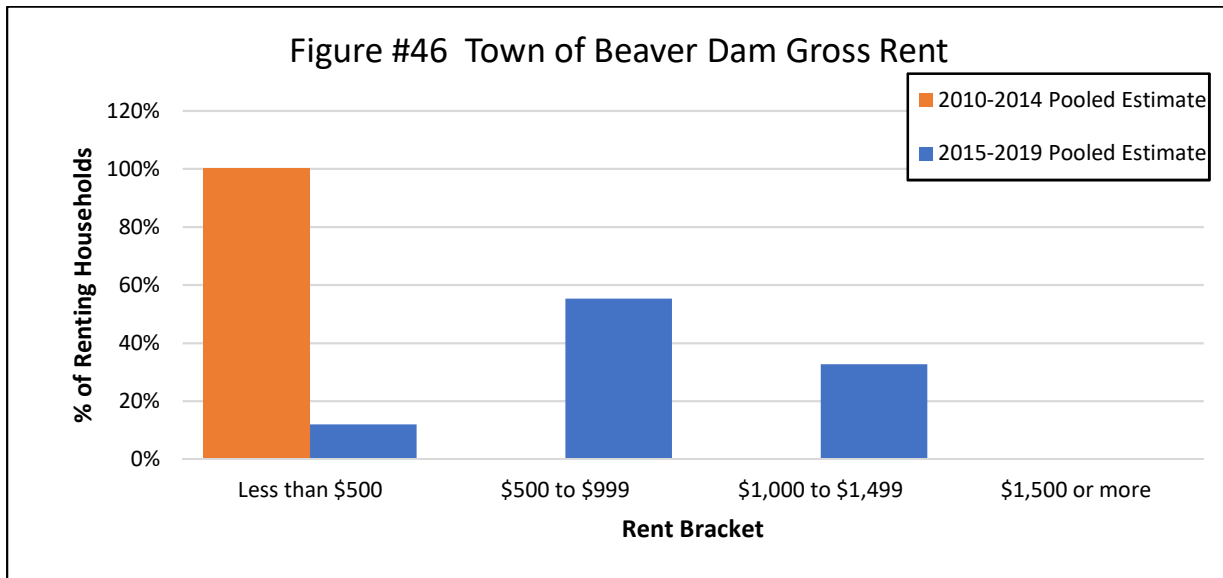
The distribution of household income for the Town of Beaver Dam is shown below. Household income in an area has important implications for affordability of housing, both for renter households and homeowner households.



\*source: ACS 5-year estimates

### Gross Rent & Gross Rent as a Percentage of Household Income

According to the ACS, the number of renting households in the Town of Beaver Dam increased from the 2010-2014 estimate of 31 units to the 2015-2019 estimate of 150 renting units. This shift may be due to a change in ACS survey methodology. Either way, it is not possible to draw conclusions from the gross rent data with any certainty. Note that the data is not inflation adjusted.



\*source: ACS 5-year estimates

United For ALICE Households

Based on calculations from the American Community Survey and the ALICE Threshold in 2018, the Town of Beaver Dam had 359 households (21%) classified as ALICE and an additional 84 households (5%) fall below the Federal Poverty Level. The total number of households in 2018 below the ALICE Threshold in the Town of Beaver Dam is 443 which makes up 26% of all households in the municipality. Compared to Dodge County which had 31% of households below the ALICE Threshold, the Town of Beaver Dam has a lower concentration of ALICE households.

Table 125: ALICE Households in Town of Beaver Dam: 2018				
Total Households	Households Below the Poverty Line	ALICE Households	Total Households Below ALICE Threshold	% of Households Below ALICE Threshold
1,724	84	359	443	26%

*\*Source: United For ALICE 2018, US Census Bureau ACS 5-year estimates*

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### Projected Household and Housing Unit Growth

Housing unit growth has been low over the last ten years. According to the ACS, 69 units have been built in the Town of Beaver Dam since 2010. This low increase in new housing supply can be partially contributed to the recession and recent suppressed household growth rates. The recent low rates of construction are barely adequate to keep up with projected household growth over the next ten years. If new housing unit construction continues at this slow pace, population will not grow.

Household population growth projections can be used to estimate the future demand for new housing units. The Wisconsin Department of Administration (DOA) household growth projections, which were completed in 2013 using 2010 census data, provide an estimate for the projected increase in the number of households in the Town of Beaver Dam between the years 2020 to 2030. The DOA projected that households in the Town of Beaver Dam will increase by 214 from 2020-2030. However, the DOA projections have overestimated household growth over recent years. If the DOA's projection is adjusted to reflect current household estimates, it indicates that households in the Town of Beaver Dam will grow by 188 households between 2020 and 2030.

If the number of new housing units built from 2020-2030 mirrors the number of housing units built since 2010, the Town of Beaver Dam is on track to have a housing shortage of 119 units. This projection assumes the number household will grow according to DOA projections, and that new housing construction and home vacancy rates remain relatively constant. As the number of households in the Town of Beaver Dam continues to increase, the current available housing supply will become further depleted as new construction rates fall short of keeping up with demand. Households unable to find adequate available housing in the Town of Beaver Dam may begin to expand their search beyond the municipality to find housing that meets their needs. This outlook indicates that home prices will continue to rise and the number of homes available for-sale on the market will continue to decrease. Buyers will have very little bargaining power which will further exacerbate the issues of supplying adequate housing, especially for Asset Limited, Income Constrained, Employed (ALICE) households.

Table 126: Town of Beaver Dam Housing Units and Households			
Housing Units	Household Estimate	Housing Units Built 2010-2019	Vacant Housing Units
1,686	1,604	69	82

*\*Source: ACS 5-year (2015-2019) estimate*

Table 127: Town of Beaver Dam Projected Household Growth			
Average Number of Housing Units Built each year 2010-2019	Adjusted DOA Projection for Average Household Growth Each Year from 2020-2030	Projected Housing Shortage Per Year	Projected Housing Shortage by 2030
7	19	(12)	(119)

*\*Source: ACS 5-year (2015-2019) estimate, DOA*



# N. Township of Fox Lake

The Town of Fox Lake consists of a significant portion of housing in agricultural setting as well as an additional segment located on lakefront property. Note that the metrics presented in this section do not distinguish between the Town of Fox Lake’s robust diversity in its housing composition. When addressing the housing shortage in the Town of Fox Lake, it is important to consider the diverse needs of perspective home buyers.

## Home Sale Price

The Town of Fox Lake had a high rate of home price appreciation in 2020. The estimate indicates a 53.4% increase in the median single-family home sale price from 2016 to 2020. Home values appreciated in the Town of Fox Lake at a faster rate compared to Dodge County as a whole.

Year	Median Home Price	Increase from Previous Year	Total % Appreciation Since 2016
2016	\$161,000	-	-
2017	\$200,950	24.8%	24.8%
2018	\$197,000	-2.0%	22.4%
2019	\$201,750	2.4%	25.3%
2020	\$247,000	22.4%	53.4%

*\*Source: Wisconsin Department of Revenue*

Year	Median Home Price	Increase from Previous Year	Total % Appreciation Since 2016
2016	\$129,000	-	-
2017	\$139,900	8.4%	8.4%
2018	\$142,000	1.5%	10.1%
2019	\$156,000	9.9%	20.9%
2020	\$171,500	9.9%	32.9%

*\*Source: Wisconsin Department of Revenue*

## Months’ Inventory

The months’ supply of housing in the Town of Fox Lake could not be estimated with any level of certainty for the Town of Fox Lake due to the low number of home sales each year and limited township data. On average over the past five years, 36 homes are sold in the Town of Fox Lake each year.

### Building Permits

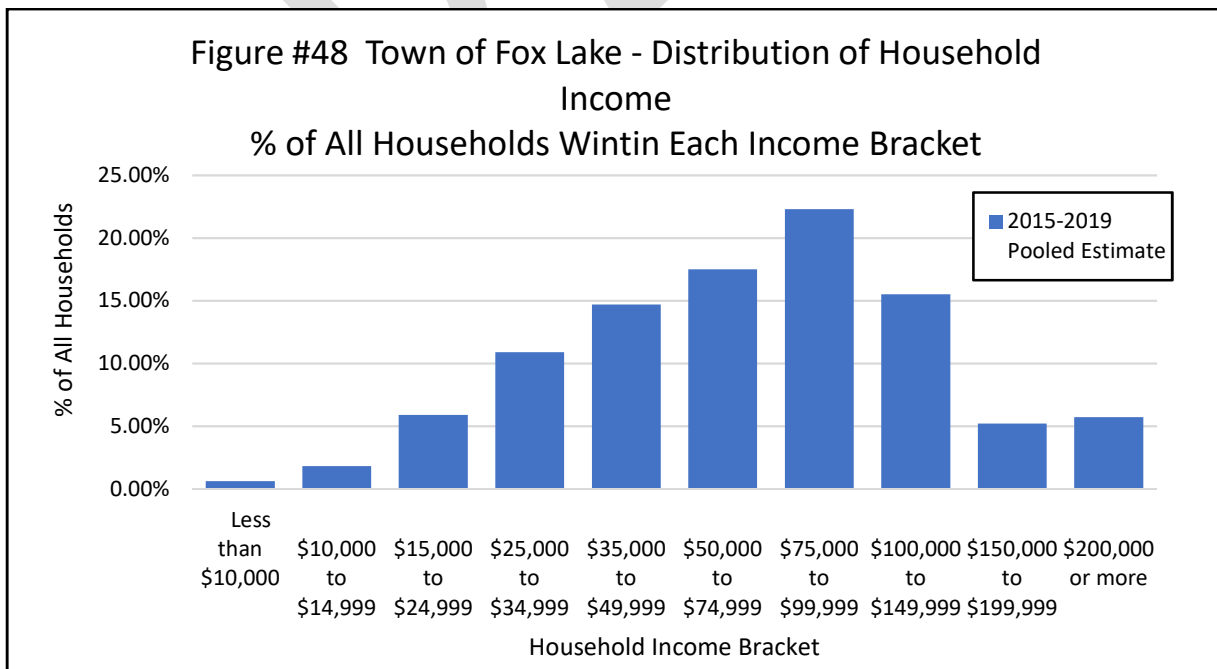
Building permits are recorded by the US Census for each municipality. In 2020, 7 total units were authorized by building permits in the Town of Fox Lake.

Table 130: Town of Fox Lake Building Permits			
Year	Single-Family + Two-Family Total Units	Multifamily (3+) Total Units	Total Units Authorized by Permits
2014	6	0	6
2015	1	0	1
2016	2	0	2
2017	7	0	7
2018	1	0	1
2019	6	0	6
2020	7	0	7

\*Source: US Census Building Permits Survey

### Household Income

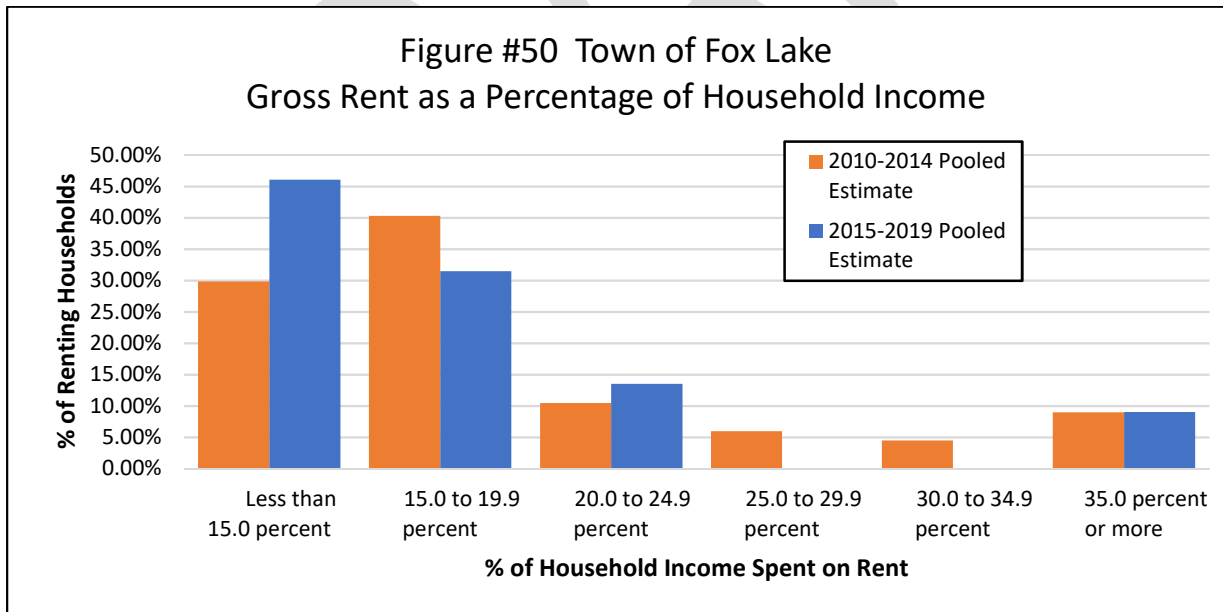
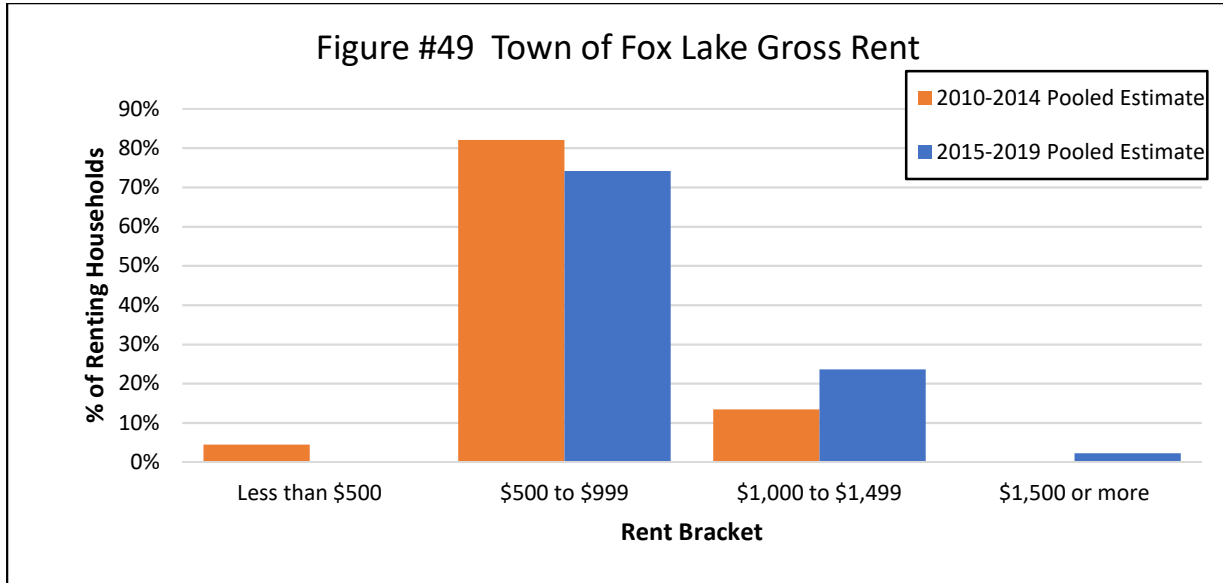
The distribution of household income for the Town of Fox Lake is shown below. Household income in an area has important implications for affordability of housing, both for renter households and homeowner households.



\*source: ACS 5-year estimates

### Gross Rent & Gross Rent as a Percentage of Household Income

There is evidence that the distribution of gross rent shifted from the first half of the decade to the second half of the decade. A larger proportion of renters paid \$1000-\$1499 in the late 2010's than in the early 2010's, and a smaller proportion of renters paid \$500-\$999 in the late 2010's as compared to the early 2010's (Figure #16). Note that the data is not inflation adjusted.



\*source: ACS 5-year estimates

United For ALICE Households

Based on calculations from the American Community Survey and the ALICE Threshold in 2018, the Town of Fox Lake had 130 households (22%) classified as ALICE and an additional 19 households (3%) fall below the Federal Poverty Level. The total number of households in 2018 below the ALICE Threshold in the Town of Fox Lake is 398 which makes up 25% of all households in the municipality. Compared to Dodge County which had 31% of households below the ALICE Threshold, the Town of Fox Lake has a lower concentration of ALICE households.

Table 131: ALICE Households in Town of Fox Lake: 2018				
Total Households	Households Below the Poverty Line	ALICE Households	Total Households Below ALICE Threshold	% of Households Below ALICE Threshold
592	19	130	149	25%

*\*Source: United For ALICE 2018, US Census Bureau ACS 5-year estimates*

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### Projected Household and Housing Unit Growth

Housing unit growth has been low over the last ten years. According to the ACS, 30 units have been built in the Town of Fox Lake since 2010. This low increase in new housing supply can be partially contributed to the recession and recent suppressed household growth rates. The recent low rates of construction are barely adequate to keep up with projected household growth over the next ten years. If new housing unit construction continues at this slow pace, population will not grow.

Household population growth projections can be used to estimate the future demand for new housing units. The Wisconsin Department of Administration (DOA) household growth projections, which were completed in 2013 using 2010 census data, provide an estimate for the projected increase in the number of households in the Town of Fox Lake between the years 2020 to 2030. The DOA projected that households in the Town of Fox Lake will increase by 50 from 2020-2030. However, the DOA projections have overestimated household growth over recent years. If the DOA's projection is adjusted to reflect current household estimates, it indicates that households in the Town of Fox Lake will grow by 46 households between 2020 and 2030.

If the number of new housing units built from 2020-2030 mirrors the number of housing units built since 2010, the Town of Fox Lake is on track to have a housing shortage of 16 units. This projection assumes the number household will grow according to DOA projections, and that new housing construction and home vacancy rates remain relatively constant. As the number of households in the Town of Fox Lake continues to increase, the current available housing supply will become further depleted as new construction rates fall short of keeping up with demand. Households unable to find adequate available housing in the Town of Fox Lake may begin to expand their search beyond the municipality to find housing that meets their needs. This outlook indicates that home prices will continue to rise and the number of homes available for-sale on the market will continue to decrease. Buyers will have very little bargaining power which will further exacerbate the issues of supplying adequate housing, especially for Asset Limited, Income Constrained, Employed (ALICE) households.

Table 132: Town of Fox Lake Housing Units and Households			
Housing Units	Household Estimate	Housing Units Built 2010-2019	Vacant Housing Units
937	543	30	394

*\*Source: ACS 5-year (2015-2019) estimate*

Table 133: Town of Fox Lake Projected Household Growth			
Average Number of Housing Units Built each year 2010-2019	Adjusted DOA Projection for Average Household Growth Each Year from 2020-2030	Projected Housing Shortage Per Year	Projected Housing Shortage by 2030
3	5	(2)	(16)

*\*Source: ACS 5-year (2015-2019) estimate, DOA*

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## Conclusion and Findings

Several considerations may be addressed by the data provided in this study. Note that these observations are only a portion of the take-aways. Individuals and communities may also find other valuable information specific to their concerns.

An initial issue is the tenuous equilibrium of supply and demand in the Dodge County housing market. The result of rising demand, combined with slow rising supply has led to home price appreciation. The dwindling availability of housing options will present a challenge if demand were to accelerate potentially causing prices to rise more quickly. Ultimately, this will cause stress on the lower cost portion of the market, as lower priced housing will be pushed into higher price markets. This can exacerbate the challenges presented to a younger, less affluent population. This can also limit potential economic growth within the county.

The issue of economic growth is connected to the idea of housing. Firms seeking to expand or relocate into Dodge County may not explicitly inquire about housing availability for the workforce. However, available housing is a determinant of the labor force. While other factors of production can be imported from long distances, labor needs to be local. It also needs to have a relationship to the wages an expanding or relocating firm will offer. As housing prices increase, the availability of labor will contract. As a result, the potential for these industries is limited. Ultimately, this is both a social and economic determination the community needs to address—how much economic growth does the County desire. If the County decides that it desires expansion, housing needs to be available to serve this goal.

The third consideration is the clarity of development fees. Dodge County's list of fees, by community and County, follow patterns witnessed in many areas—they are complex and challenge the developer to compare. This is not unusual, however, the effort a developer invests in determining the costs and implementing the costs are ultimately passed onto the homeowner or renter in an inelastic market. For example, when the supply is inelastic (with limits on supply expansion), the costs are paid by the consumer. A reduction in these costs can accelerate the development process and lower the ultimate cost to the buyer. This may help in the development of more affordable housing.

Finally, Dodge County's housing challenges are not unique. Counties and municipalities throughout Wisconsin and the nation are confronting these issues. Dodge County, however, has an opportunity to assess ideas that can fill the housing gap through a clear recognition of the challenge and the development of processes that can begin to address an increase in demand that exceeds the increase in supply.

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# Appendix A

## Dodge County Municipality Building Fees

Standard building and development fees charged for the development of a new single-family home are recorded in the following tables for the majority of the municipalities in Dodge County analyzed by this study. These fees are charged to the developer to cover permits, inspections, documentation, and other administrative costs associated with new development. Building and development fees can range considerably from site to site. Municipalities may charge additional miscellaneous fees not captured in tables, and most municipalities charge punitive fees for neglecting to acquire required permits, late requests, or mishandled inspections.

Developers pay these building fees upfront and endure costs associated with the effort necessary to identify and acquire the correct permits. Developers then either internalize these costs, lowering their bottom line, or pass them on to buyers in the form of higher home prices. During the housing market crash of 2008, buyers held more market power and developers ended up covering most of these development costs. New construction plummeted, evident by the sharp decline in building permits issued. Over the past ten years, the housing supply in Dodge County has slowly depleted as household growth (demand) outpaced housing unit growth (supply). Market power slowly transitioned back to home sellers as the housing supply decreased leaving prospective buyers with fewer options. Due to the inelastic nature of the housing market, developers can push development fees onto home buyers as supply becomes constricted.

One change that could encourage housing development is to establish a consistent schedule of low fees and non-onerous regulations across communities or setting reduced fees for starter-priced homes. The fees, permits, and processes a prospective developer must adhere to vary considerably between communities. These hurdles create inefficient “shoe leather” costs or the additional costs from time and effort that developers are required to incur while parsing through differing standards. The additional costs are inevitably passed onto the home buyer or may even discourage developers from constructing affordable housing altogether and instead choose to construct larger homes with higher profit margins where these costs can be more easily absorbed. Ultimately, such costs are either passed onto the home buyer, prevent the expansion of affordable housing stock, or both.

Local communities must remember that development fees (building permits, stormwater management, plat review, etc.), impact fees, and the approval process itself all contribute to the cost and affordability of housing. Moreover, these costs are generally fixed regardless of the price or size of housing and, thus, have a regressive effect on the affordability of housing.

The fees recorded below are the unique fees specified in the respective municipality’s schedule of fees document or similar document.

Beaver Dam - 2019 New Housing Fee Report

<b>Table 134: Beaver Dam New Single Family Building Fees</b>	
Building Permit	\$45 + \$0.12 per SF
Plan Review/Administrative Fee	100
Plat Approval Fee	\$150 - \$300 + \$5 - \$10 per Acre
Erosion Control	\$200
State Seal	\$40
Sewer Hook-Up Fee	\$519+

Fox Lake – Fee Schedule

<b>Table 135: Fox Lake New Single Family Building Fees</b>	
Building Permit	\$500 + \$0.28 per SF (min \$1,000)
Plan Review/Administrative Fee	Included
Zoning	\$100
Erosion Control	\$50
Occupancy Permit	\$50
State Seal	\$40

Horicon – Building Permit Fee Schedule

<b>Table 136: Horicon New Single Family Building Fees</b>	
Building Permit	\$75 + \$0.10 per SF
Plan Review/Administrative Fee	\$200+
Zoning	\$65
State Seal	\$40
Plumbing	\$35 +\$0.03
HVAC	\$35 +\$0.03
Electrical	\$35 +\$0.03

Juneau – Fee Schedule

<b>Table 137: Juneau New Single Family Building Fees</b>	
Building Permit	\$100 + \$0.12 per SF
Plan Review/Administrative Fee	\$250+
Zoning	\$75
State Seal	\$40
Plumbing	\$0.04 per SF
HVAC	\$0.04 per SF
Electrical	\$100 + 0.04 per SF

Mayville – Building Permit Fees 2017

<b>Table 138: Mayville New Single Family Building Fees</b>	
Building Permit	\$0.204 per SF (min \$550)
Zoning	\$75
State Seal	\$40
Plumbing	\$66
HVAC	\$66
Electrical	\$66

Watertown – 2021 (FY 2020) New Housing Fee Report

<b>Table 139: Watertown New Single Family Building Fees</b>	
Building Permit	\$85 + \$0.25 per SF (min \$25)
Plan Review/Administrative Fee	\$55
Zoning	\$500 - \$1,000
Plat Approval Fee	\$50 - \$300
Erosion Control	\$125 + \$0.002 - 0.003 per SF
Occupancy Permit	\$25
State Seal	\$40
Plumbing	\$35 + \$0.03 per SF (min \$70)
HVAC	\$35 + \$0.03 per SF (min \$70)
Electrical	\$35 + \$0.03 per SF (min \$70)
Water Impact Fee	\$1,200
Park Impact Fee	\$1,264
Sewer Hook-Up Fee	\$3,200+

Waupun – New Housing Fee Report for 2020 Calendar Year

<b>Table 140: Waupun New Single Family Building Fees</b>	
Building Permit	\$500 + \$0.28 per SF (min \$1,000)
Zoning	\$100
Erosion Control	\$50
Occupancy Permit	\$50
State Seal	\$40
Plumbing	Part of Building Permit
HVAC	Part of Building Permit
Electrical	Part of Building Permit

Village of Hustisford - Fee Schedule

<b>Table 141: Village of Hustisford New Single Family Building Fees</b>	
Plan Review/Administrative Fee	\$250
State Seal	\$40

Town of Lomira – Fee Schedule 2020

<b>Table 142: Town of Lomira New Single Family Building Fees</b>	
Building Permit	\$500 + \$0.28 per SF (min \$1,000)
Plan Review/Administrative Fee	Included
Zoning	Included
Erosion Control	\$50
Occupancy Permit	\$50
State Seal	\$40
Plumbing	Part of Building Permit
HVAC	Part of Building Permit
Electrical	Part of Building Permit