

The workforce housing shortage: Getting to the heart of the issue

April 2018

By Kelly Asche, Research Associate

To read this report online, visit our website at www.ruralmn.org.

Providing housing for a community or region's population is complex and dynamic. A healthy housing market should be able to provide housing for most people and their diverse needs through a combination of natural churn and new construction.

In rural areas, however, economic and demographic forces are at work creating a housing shortage that many communities say is keeping them from attracting much-needed new workers.

But while hundreds of for-profit, non-profit, and government organizations are doing great work around Minnesota to untangle these housing issues, the housing shortage is complex and not well understood by people outside the housing field. This report looks at two major factors as to why the housing market isn't naturally providing the housing needed in many rural communities:

- The considerable increase in construction costs that are pricing younger families out of the market for starter homes and skewing the market in strange ways; and
- The relatively higher percentage of seniors living in rural communities, which, combined with their desire to age in place, the emphasis on helping them do so, and the lack of assisted living facilities in rural communities, is causing not only a bottleneck in houses coming on the market but also increasing the likelihood that the amount of dilapidated housing will increase in the future.

It is important to note as well that not all rural areas are facing housing shortages. This issue is limited to regions where economic activity is growing and where new workers are needed to fill an aging workforce, which is a large segment of Greater Minnesota, but not everywhere. Some rural areas are also facing related housing issues such as vacant housing and/or severe dilapidation of their housing stock, but these are not covered in this report.

Who needs housing?

An increasing number of job vacancies (Figure 1) have employers demanding an immigration of workers, and they are blaming the lack of appropriate housing as a significant reason for why they can't attract more workers. At the same time, rural development organizations across Greater Minnesota are feeling the pressure to add more housing to attract these new workers and new, "younger" families.

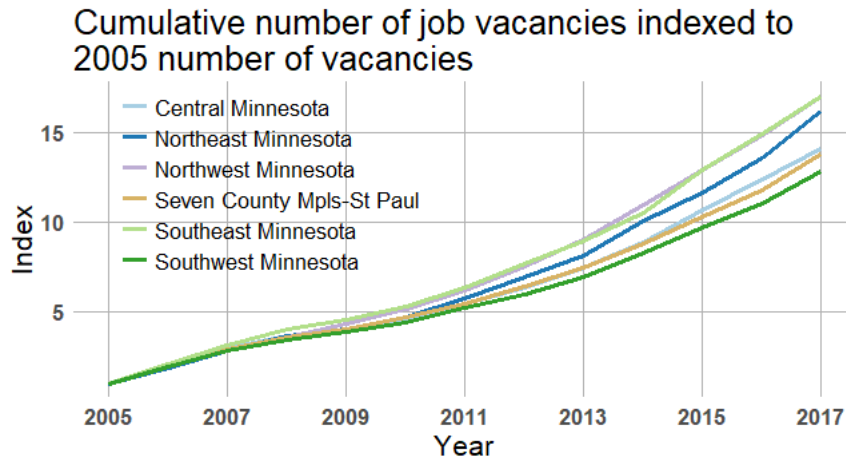


Figure 1: Since 2005, most of the non-metro regions have shown faster growth in job vacancies than the Twin Cities area. The job vacancy index provides a way of measuring growth by dividing the accumulated number of job vacancies by the number of job vacancies in 2005. (Data: MN DEED)

It might be difficult to believe that places with small increases in their population or overall declines would need new housing. However, population and housing are not as closely linked as one might expect. Families are smaller today than they were decades ago, but that doesn't necessarily equate to fewer households. Table 1 shows that for even our most rural counties (for the definitions of these categories, see the appendix titled "[Definition of Four County Categories](#)"), there has been an increase in the number of households despite a 21% drop in population since 1970. The table also highlights the growth in the number of households compared to population in other rural county types.

County group	% change in households	% change in population
Entirely rural	9%	-21%
Town/rural mix	50%	12%
Urban/town/rural mix	73%	31%
Entirely urban	106%	62%

Table 1: Percent change in households and population by county group, 1970–2016. (Data: Decennial Census & ACS 5-year)

Adding pressure to this issue is the migration trend of middle-age householders moving to rural areas in search of more affordable housing. Rural areas tend to see an in-migration of households in the 30- to 49-year-old age group, a trend that's typically overshadowed by the larger out-migration of 20- to 29-year-olds. But research by the University of Minnesota Extension's Center for Community Vitality shows that a significant contributing factor in choosing to migrate to rural areas has been to find more affordable housing.¹

Appropriate housing tied up with older households

A healthy churn in housing is a necessary part of a community's ability to meet the social and economic needs of its members. Not every household moves, of course, but there are life-stages when a move is more likely: beginning employment, career changes, children being born or leaving the house, growing old, and/or due to health concerns. At different stages of life, householders often either choose or are forced to leave behind their current housing, freeing it up for those who need and can afford it (Figure 2).

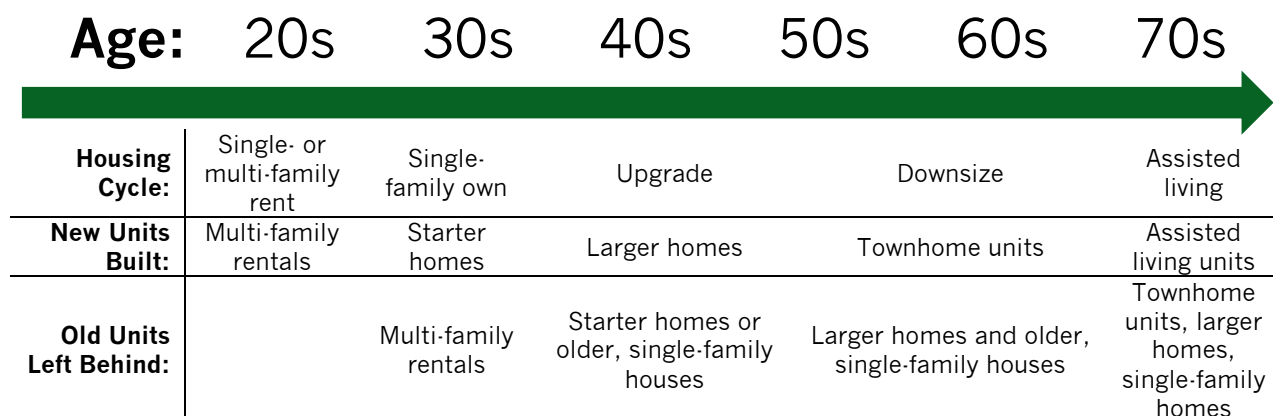


Figure 2: The housing life stages in an ideal housing market. At each point in a family's life cycle, new units are built to meet their demand while their old units are left behind for the next set of buyers. (Source: U of MN Extension | Center for Community Vitality - Ben Winchester)

In rural areas, however, older households tend to move less (Figure 3), while at the same time they represent a larger percentage of total households (Figure 4).² In addition, the longer elderly householders stay in their homes, the more likely it is for their homes to become dilapidated or at least not kept up to code, often because the elderly homeowner is unable because of income or health or both to make the necessary improvements.

¹ <http://www.extension.umn.edu/community/brain-gain/>

² For information on the geographic breakdowns of these charts, read the appendix titled "[Definition of Four County Categories](#)".

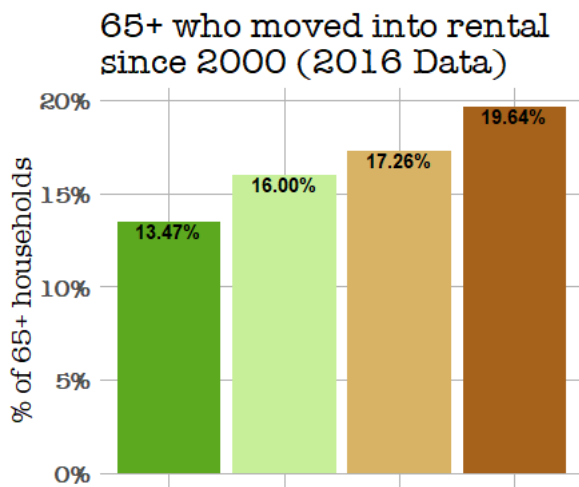


Figure 3: Households 65+ in rural areas are less likely to have moved into a rental unit within the past 15 years compared to urban areas. This can limit the amount of housing available in a community. (Data: ACS 5-year)

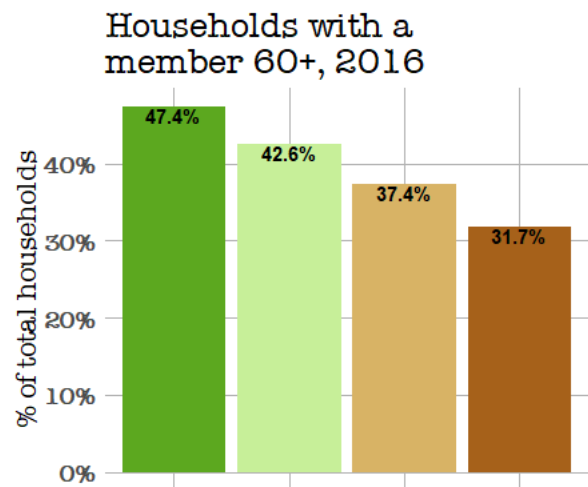


Figure 4: The percentage of households that have someone living with them aged 60 years or higher is higher in rural communities. (Data: ACS 5-year)

This lack of movement among older households creates something of a domino effect in the rural housing stock, freeing up fewer single-family homes for the new workforce and resulting in a shortage of housing across the entire life-cycle spectrum (Figure 5).

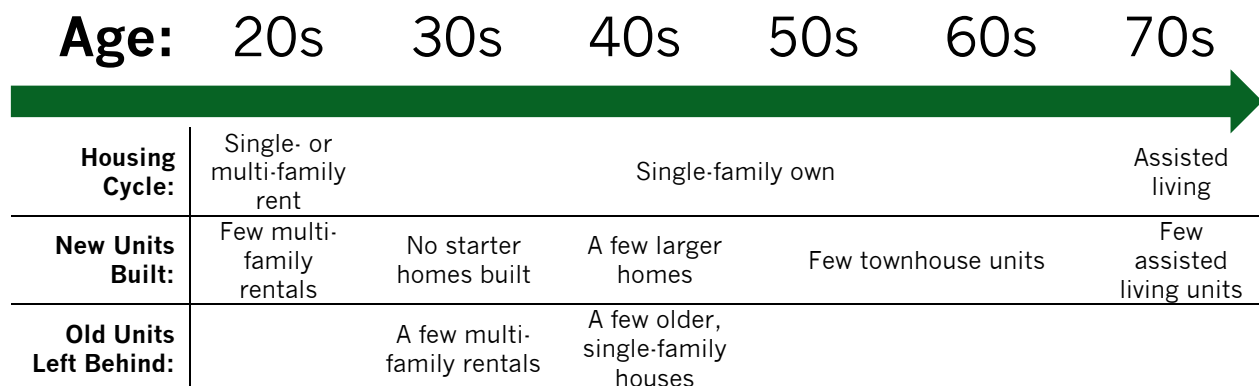


Figure 5: The housing life stages as they exist in many rural communities today. (Modified source: U of MN Extension | Center for Community Vitality - Ben Winchester)

The data is beginning to show evidence that this lack of housing churn in rural areas is tightening both the rental (Figure 6) and for-sale home market (Figure 7).

Rental unit vacancies as a percentage of total housing units

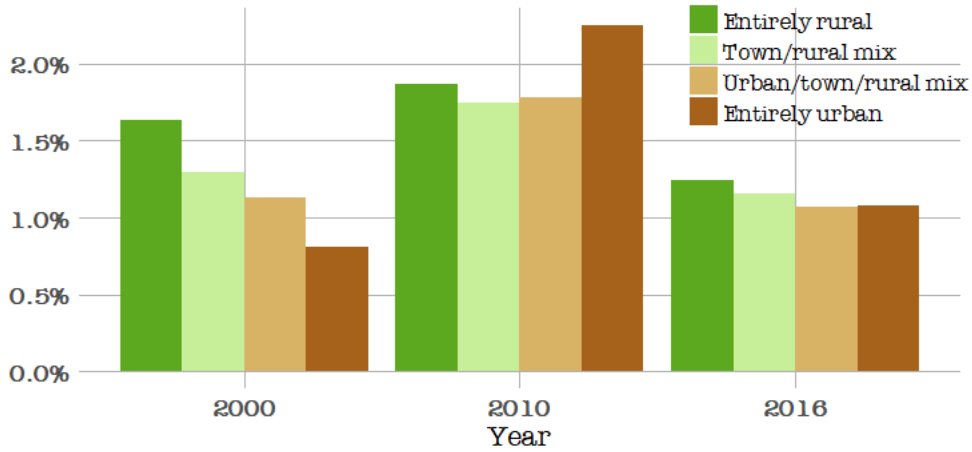


Figure 6: Rental vacancies as a percentage of total households is currently lower than it was in 2000 in rural counties. (Data: Decennial Census & ACS 5-year)

Number of home sale listings and closings in entirely rural and town/rural mix counties combined

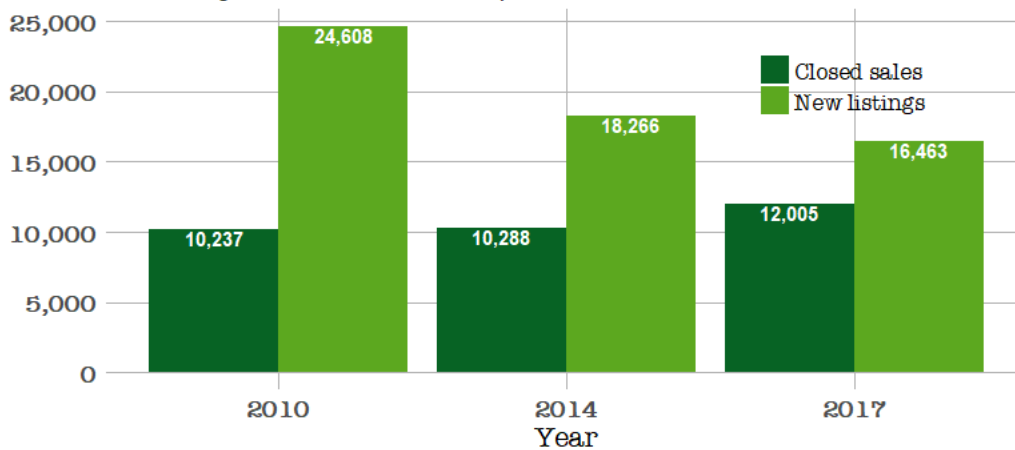


Figure 7: The number of home sale closings in entirely rural and town/rural mix counties have increased since 2010, yet the number of homes listed for sale has decreased. (Data: Minnesota REALTORS)

Increasing costs of construction

Despite growing pressure on community leaders to rehab substandard housing and/or build new units to meet demand, increasing construction costs are making both of these strategies challenging.

Housing professionals give several reasons for the sharp increase in construction costs lately:

- The increasing cost of materials;
- The increasing price of land to build on;
- The increasing cost to prep build-sites with water, sewer, and other infrastructure;
- A sluggish recovery in the number of home building companies since the Great Recession, forcing up prices for their services;
- A competitive retail construction market in larger communities that can pay more for projects, forcing up “bids”;
- Labor shortages in the trades industries leading to higher wages; and,
- The increasing number and complexity of building codes.

Specific data confirming each of these reasons is limited, but employment and business data confirm a lower number of businesses and employees in the home building industry compared to pre-recession years. (See [Appendix: Increasing costs to build new.](#))

Of course, these reasons for construction and rehab cost increases impact rural and urban areas alike, but what makes this issue uniquely rural is the impact they have on the mismatch between construction costs and home values in rural areas.

New construction “starter homes” are out of reach

Despite a demand for housing and a lack of available older housing, high construction costs are contributing to the fact that the number of housing units being built has not recovered in rural areas since 2010 and are currently about half of what they were in 2000 (Figure 8).

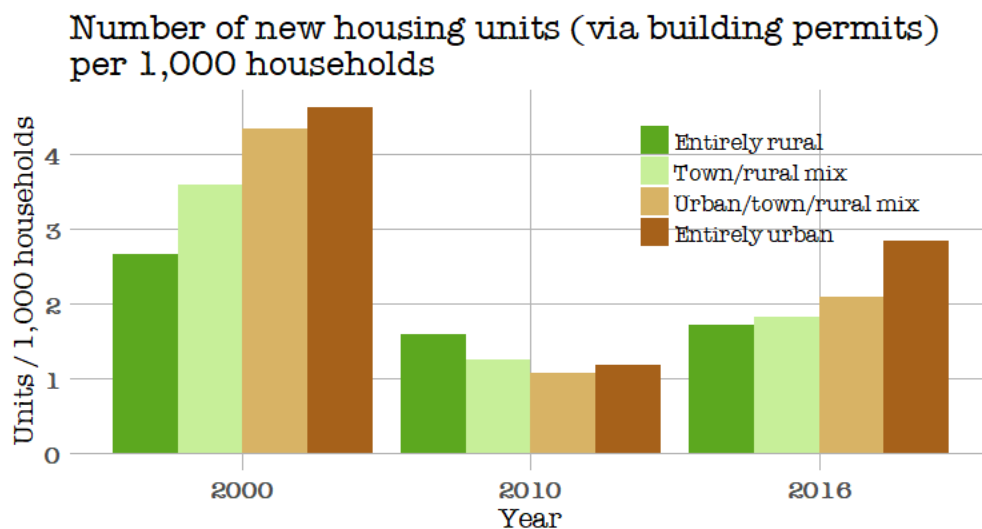


Figure 8: Estimates of new housing units are from the Building Permits Survey. To be able to compare regions, the number of housing units to be built is divided by the number of households in 2000, 2010, and 2016. The building

of new housing units has not recovered since the Great Recession and is currently about half of what it was in 2000. (Data: U.S. Census Building Permits Survey, Decennial Census, ACS 5-year)

The lack of housing development in rural areas is not due to a *decrease* in rural household incomes. In fact, median household incomes, median home sale prices, contract rents, and mortgage and homeowner costs have been *growing*, particularly in counties outside of the entirely urban counties (Table 2).

County group	Median household incomes - % change since 2000	Median home sale price - % change since 2010	Contract rent - % change since 2000	Mortgage and homeowner costs - % change since 2000
Entirely rural	51%	45%	58%	65%
Town/rural mix	42%	40%	57%	57%
Urban/town/rural mix	36%	57%	58%	52%
Entirely urban	35%	42%	52%	52%

Table 2: Percent change of median household incomes, median home sale price, contract rent, and mortgage and homeowner costs reveal that the largest increases have been outside of our most urban counties. (Data: Decennial Census & ACS 5-year, Minnesota REALTORS)

These indicators today are still 60% to 75% that of urban areas, but even though the gap has narrowed, developers are building far fewer homes in rural areas now than they were in the early 2000s, when the disparities in these indicators between rural and urban were much wider (Figure 8).

Many housing professionals have reported building costs increasing 60% to 90% since 2000, a much faster rate than incomes across the state.

Rick Goodeman, CEO of the Southwest Housing Partnership, talks about a time when they administered a program that assisted in the development of new homes in very small towns for households with incomes just above the limits required to access more traditional housing programs. These homes are typically modest in square footage and amenities but help replenish the housing stock for incoming workforce.

“In the late 1990s and early 2000s, we could work with small communities to develop new housing that cost a little over \$100,000. Now, you can barely build that same house for \$200,000,” Goodeman says.

In the early 2000s, Southwest Housing Partnership worked with the city of St. Peter to develop a new housing division on the edge of town called “Nicollet Meadows.” With the help of various housing finance programs, the city and SWHP were able to keep the project financially sustainable with an average purchase price for these homes of \$128,010. A new and very similar development in St. Peter (same number of bedrooms and square footage) is currently priced between \$197,250 and \$207,500, a 60% increase in the sale price back in 2000.

One owner of a construction company in west central Minnesota says that he receives phone calls frequently from households inquiring about the construction of a new home. When they receive the estimate, they are shocked. They're hoping for something a little over \$100 a square foot, but the lowest cost to build is more like \$200 per square foot.

"The building of new homes has come to a halt in this area because people are priced out of the market," this builder says.

Unfortunately, the incomes needed to afford these "starter" homes are out of reach for much of the new or younger workforce. As Nick Dalton from United MN Bank in New London explains, "considering the qualifying ratios and down payment requirements for most conventional mortgage products, it is common to see household incomes fall short of what is needed to afford a starter home or a home that isn't in need of repair or improvement."

Lack of market for new construction "starter homes"

Not only are these homes out of reach for the new or younger workers, but the perception exists among households that can afford this price that it "isn't much house" for the price.

At \$200,000, a new-built home would cost 50% - 90% more than the median value of existing homes in the area (Figure 9). Even if a family could afford to build a new starter home at this price, it could be difficult to convince them, knowing that they could buy one of the existing homes around them at the same price, and it would probably be larger, have more character and be in a more desirable location. And to add insult to injury, when construction is completed, the new house would likely be appraised at a lower selling price than what it cost to build.

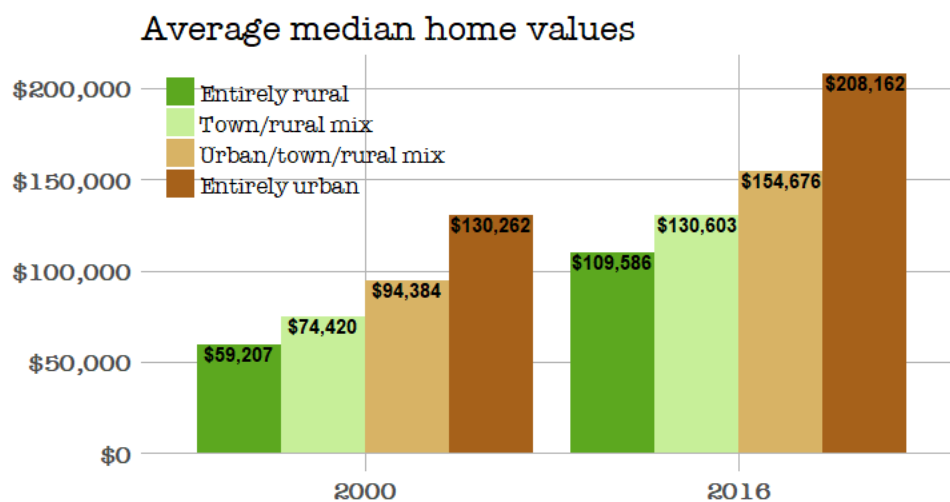


Figure 9: Home values have increased since 2000, but values in non-urban areas lag significantly, while the cost of construction soars. (Data: Decennial Census & ACS 5-year)

This leaves very few households demanding newly built starter homes and makes it challenging for developers to build these projects even in areas where there might be high demand for workforce housing.

Low rents and inability to take risk

If new workforce or younger households can't afford to build new starter homes, there is hope that building rental units, where efficiencies can make the financial model more manageable, can be a solution.

Here the issue is a bit more nuanced. In the right market with high demand where 20 or more units could be built and rented, developers sense some optimism. However, the challenge is overcoming significantly lower rents in rural areas.

Although rents in non-urban areas have increased between 50% and 60% since 2000, they lag significantly behind urban rents (Figure 10). To make these projects financially feasible, rents right now would need to be around \$800 per month, which can be 50% to 100% more than current median rents in many non-urban areas.

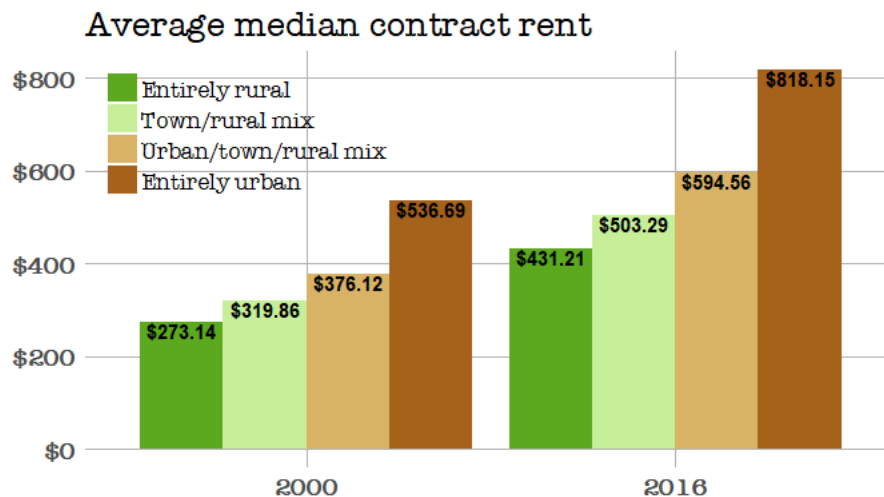


Figure 10: Similar to home values, rent paid in non-urban areas is significantly lower compared to urban rents. (Data: Decennial Census & ACS 5-year)

Some developers believe there is a market for those rent prices, but the data to prove it is mixed. Thirty percent or less of income going toward housing costs is considered the “affordable” threshold, and Figure 11 shows that some 55% of rural households are paying less than 30% of their income toward rent, including around 35% of households paying 20% or less of their income towards rent. However, given the increase in building

costs in general, the rule of thumb on affordability may not be enough anymore, indicated by how many households are paying more than 35%.

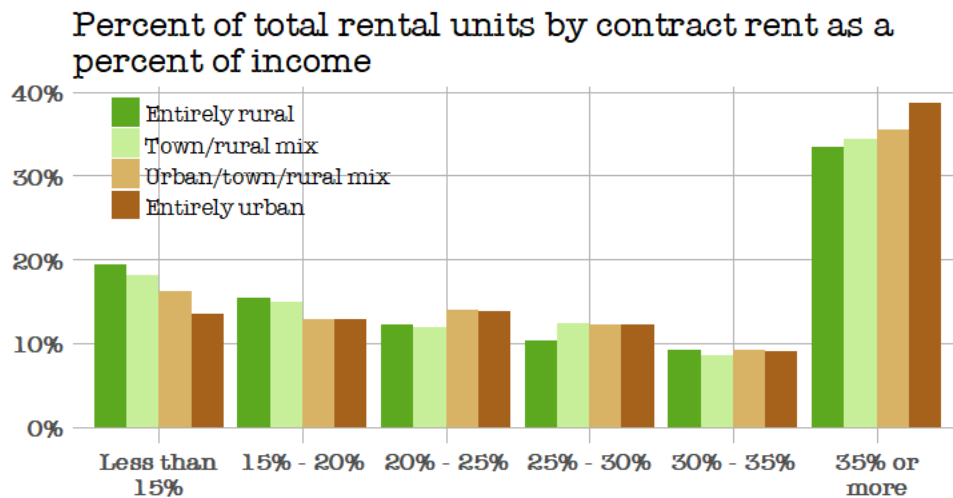


Figure 11: The percentage of households in occupied rental units paying a small percentage of their incomes in non-urban counties. About 20% of rural households are paying less than 15% of their income towards rent, but the high percentage of households paying 35% or more toward contract rent payments is concerning, leaving mixed results on whether rural areas can afford higher rents. (Data: ACS 5-year)

The lack of concrete proof of the ability to pay higher rent leaves median contract rents as the only data point, making it a challenge to convince investors that rental projects are feasible. Lenders also don't have the flexibility to provide resources when data indicate that these projects carry significant risk.

Rising construction costs impact substandard housing investments

On the other side of the coin from unaffordable housing (particularly in regions with lakes) is very inexpensive housing in various states of dilapidation.

Communities trying to attract younger families look at dilapidation as a serious problem. Younger families often don't have the means to make a large investment in fixing up a home. The smaller and more rural the community, the more limited the housing stock, and thus the bigger the problem dilapidation becomes.

Rural leaders in regions with a demand for workforce often lament the condition of existing homes available in their communities. In urban areas with a growing workforce and where home values are higher, this type of older housing can make perfect starter

homes for families willing to invest in their rehab and can be great for folks who don't have a lot of extra cash saved for a down payment.

In rural areas, however, increases in construction costs, coupled with lower home values in general mean there is no guarantee that rehab work will increase a home's value, a major barrier for banks offering mortgage products to families that don't have the cash.

As Nick Dalton from United MN Bank in New London explains, "if an applicant wants to purchase a property in need of repair they may incur rehab costs that aren't supported with a market value appraisal. Purchasing a home for \$40,000, investing another \$40,000 to rehab the home and have the appraisal support a \$70,000 value makes the purchase nearly impossible to finance."

There is very little data that highlights how many substandard homes there are in rural Minnesota, but the stage is set for the amount of dilapidated housing to increase significantly over the next 10 to 20 years as the population continues to age. Results from a survey commissioned by the MN Department of Human Services | Aging 2030 showed that baby boomers in rural areas and small towns were most likely to prefer to age in their current homes.³

Not only is there a higher preference, but many baby boomers in rural areas may not have a choice. As highlighted in a [2015 report](#) by the Center for Rural Policy and Development, assisted living facilities are being developed at a slower rate in rural areas than in metropolitan areas due to shortages in the healthcare workforce and financial feasibility challenges.

Future Research

Construction costs, low home values and the aging population all combine to create the environment that is fostering the housing shortage in Greater Minnesota today. There is little research on the current state and future impacts of these issues, however, making it difficult to develop long-lasting solutions to these two knotty issues.

A closer look at the causes of the increases in construction costs will hopefully reveal areas where the market breakdown can be fixed, while a careful examination of how we can help our seniors keep their homes in good repair or move to quality assisted living nearby could help find ways to loosen the bottlenecks in the rural housing cycle. Understanding the overall picture better should help policy makers, community leaders and builders maintain a healthy supply of homes for workers in our growing rural businesses.

³ Aging 2030: 2010 Minnesota Baby Boomer Survey: Findings for Urban, Suburban and Rural Boomers

Appendix: Definition of Four County Categories

The Minnesota State Demographer's four categories uses the U.S. Census *rural-urban community area (RUCA) codes*. You can find the definition in their report "*Greater Minnesota: Refined & Revisited.*" The State Demographer's Office analyzes the census tracts in each county to determine the type of "mix." Each county is then categorized.

Urban Definition

- 1 Census tract is situated at the metropolitan area's core and the primary commuting flow is within an urbanized area of 50,000 residents or more.
- 2 Census tract is within a metropolitan area and has higher primary commuting (30% or more) to an urbanized area of 50,000 residents or more.
- 3 Census tract is within a metropolitan area and has lower primary commuting (10-30%) to an urbanized area of 50,000 residents or more.

Large Town Definition

- 4 Census tract is situated at a micropolitan area's core and the primary commuting flow is within a larger urban cluster of 10,000 to 49,999 residents.
- 5 Census tract is within a micropolitan area and has higher primary commuting (30% or more) to a larger urban cluster of 10,000 to 49,999 residents.
- 6 Census tract is within a micropolitan area and has lower primary commuting (10-30%) to a larger urban cluster of 10,000 to 49,999 residents.

Small Town Definition

- 7 Census tract has a primary commuting flow within a small urban cluster of 2,500 to 9,999 residents.
- 8 Census tract has higher primary commuting (30% or more) to a small urban cluster of 2,500 to 9,999 residents.
- 9 Census tract has lower primary commuting (10-30%) to a small urban cluster of 2,500 to 9,999 residents.

Rural Definition

- 10 Census tract has a primary commuting flow outside of urban areas and urban clusters.

The number of counties within each category are; i) entirely rural: 14; ii) town/rural mix: 35; iii) urban/town/rural mix: 25; and iv) entirely urban: 13.

Appendix: Increasing Costs to Build New

Many developers and housing officials claim that the number of home construction businesses has not recovered since the Great Recession. Figure 12 shows that there are fewer businesses per 100 housing units compared to 2000. It also appears that these businesses are frequently taking projects in larger regional centers where the work is more lucrative.

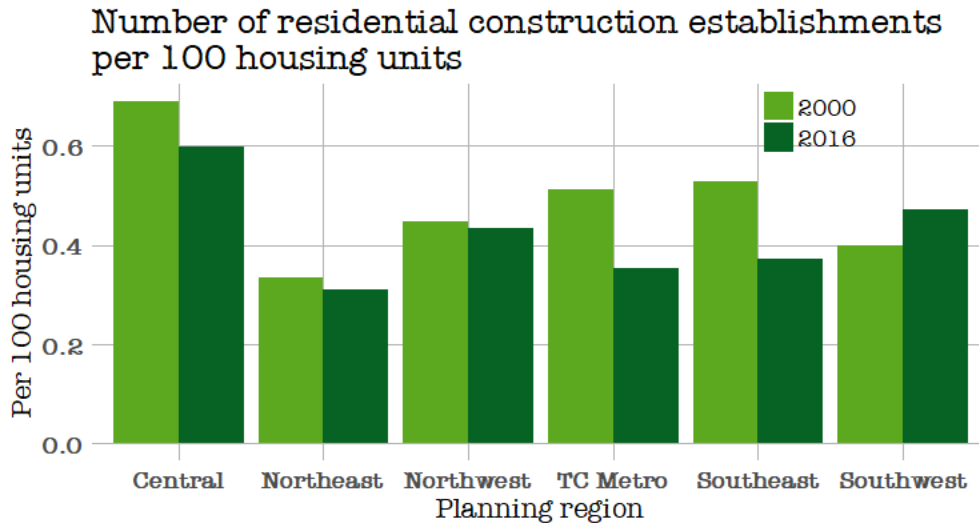


Figure 12: The number of businesses associated with home construction has not increased at the same rate as the number of housing units with the exception of SW Minnesota. (Data: MN DEED)

Developers say that costs of materials have increased, but more importantly, the labor shortage has increased the cost to attract and retain laborers. Quite a few contractors disappeared during the Great Recession, and the number of contractors and employees hasn't recovered as fast as the market is demanding (Figure 13).

Number of employees in businesses associated with residential construction as a percent of total households

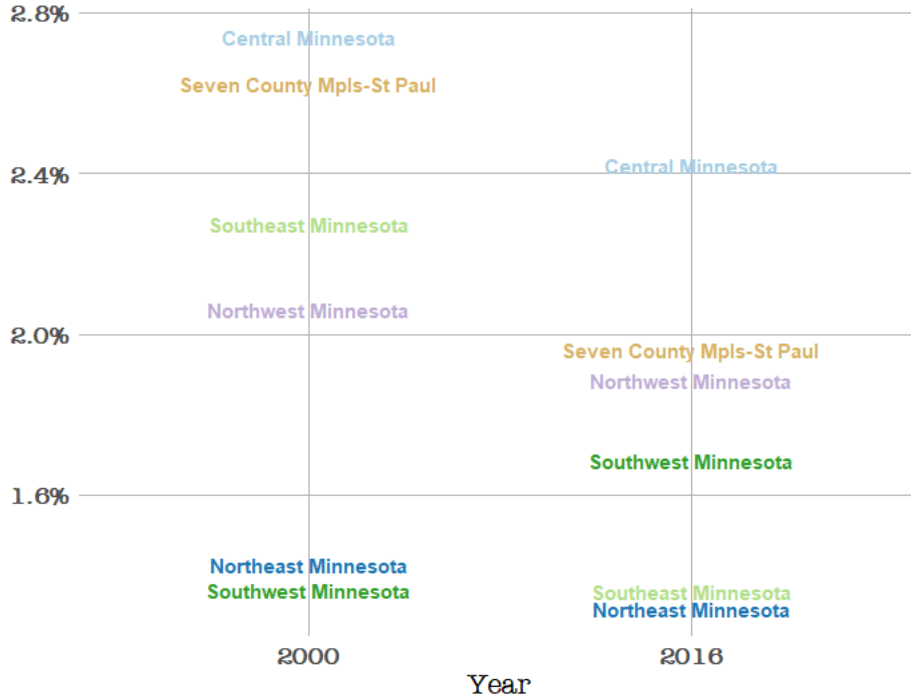


Figure 13: Every region except SW Minnesota has fewer employees working for residential contractors as a percentage of total households. This includes businesses such as plumbers, roofers, framers, and other contractors involved with the building or maintenance of residential homes. (Data: MN DEED)

Wages are increasing in response to this lack of growth in employment (Figure 14). Since 2000, average weekly wages for employees in businesses related to home construction and maintenance has increased 130% to 155%. Although wages in the seven-county metropolitan region are the highest, wages in every other region have grown faster (Table 3).

Average weekly wage of employees in businesses associated with residential construction

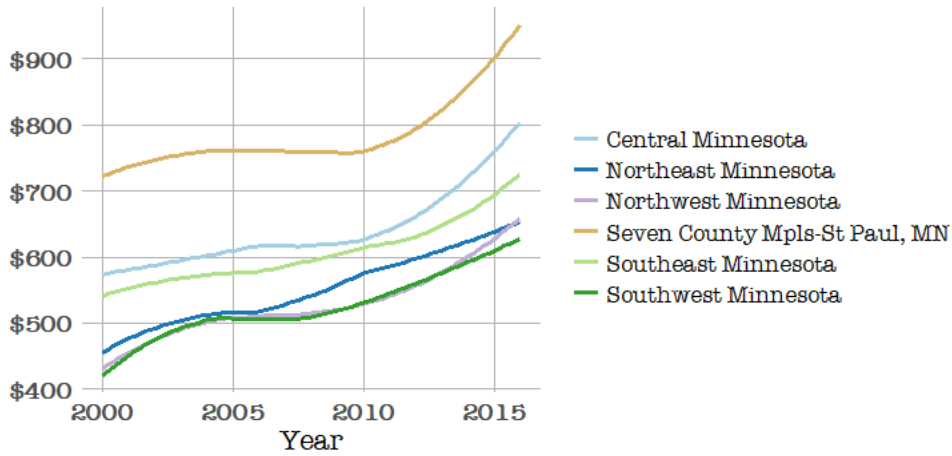


Figure 14: The average weekly wage for employees in businesses associated with residential construction is increasing across the state. This includes businesses such as plumbers, roofers, framers, and other contractors involved with the building or maintenance of residential homes. (Data: MN DEED)

REGION	AVERAGE WEEKLY WAGE INCREASE SINCE 2000
CENTRAL MINNESOTA	140%
NORTHEAST MINNESOTA	145%
NORTHWEST MINNESOTA	155%
SEVEN COUNTY MPLS-ST.PAUL, MN	132%
SOUTHEAST MINNESOTA	138%
SOUTHWEST MINNESOTA	148%

Table 3: Employees in the residential construction trades have experienced the largest wage increases in areas outside of the seven-county Twin Cities region. This includes employees for businesses such as plumbers, roofers, framers, and other contractors involved with the building or maintenance of residential homes. (Data: MN DEED)

Data is limited when analyzing reasons for construction cost increases, but there has been an attempt to get a better understanding. Calculations by the Builders Association of Minnesota estimate that the 2015 changes to the energy codes for single-family homes increased costs to build by \$7,000 to \$18,000 depending on size. The National Association of Home Builders conducts a national survey every few years to estimate construction costs. A [2015 report](#) showed that the average construction cost per square foot has increased by 29% since 2011. The reasons for this increase provided by construction companies include excavation prices, trusses and framing increases, increasing wages, and subcontractor prices.