Planning, Research & Evaluation

The Loss of Naturally Occurring Affordable Housing (NOAH)

5/2/2018

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Summary

In recent years, the loss of Naturally Occurring Affordable Housing (NOAH) has been getting much attention. NOAH rental units are affordable without government assistance or subsidies and are typically older properties that lack amenities. In some cases, these properties are losing their affordability after being sold and rehabilitated/improved. The purpose of this analysis is to estimate the size of the loss and understand the types of properties losing their affordability and the communities losing units.

Key Findings

- In the Twin Cities metro area, roughly 1,300 affordable rental units are annually losing their affordability after a property sale. **Statewide, approximately 2,000 affordable rental units are annually lost.**

- **In the Twin Cities metro area, suburban communities are losing larger properties, while Minneapolis and St. Paul are losing smaller properties.** While suburban communities account for 60% of the lost properties, they account for 90% of the lost units in the Twin Cities metro area.

- Class C properties account for most of the lost properties (76%); however, Class B properties are typically larger, accounting for 24% of the lost properties and 44% of the lost units.

- Two bedroom units are more likely to lose their affordability than studio units.

- **NOAH units in higher rent communities are more likely to lose their affordability.**

Overview of the Analysis

To identify the loss of NOAH units through the sale and improvement of the properties, we compared the affordability of pre-sale rents with current (post-sale) rents for market-rate properties sold since 2010 in the 7-county Twin Cities metro area. The data comes from CoStar, which collects data on rental properties with four or more units. Areas outside of the metro area were not included in the analysis due to data limitations. However, to estimate the potential loss of NOAH units in Greater Minnesota, we extrapolate the metro results to Greater Minnesota as a proxy.

The CoStar database has pre-sale and current rents and unit sizes for 523 properties that have sold since 2010, representing 40% of all market-rate sales in the CoStar database. The other property sales tracked by CoStar are missing key data elements, primarily pre-sale rents. The table below shows that the unit characteristics of the 523 sold properties with complete data (pre-sale and current rents and unit sizes) match relatively closely the market of all sold properties.

Table 1: Twin Cities Metro Area Properties Sold Since 2010

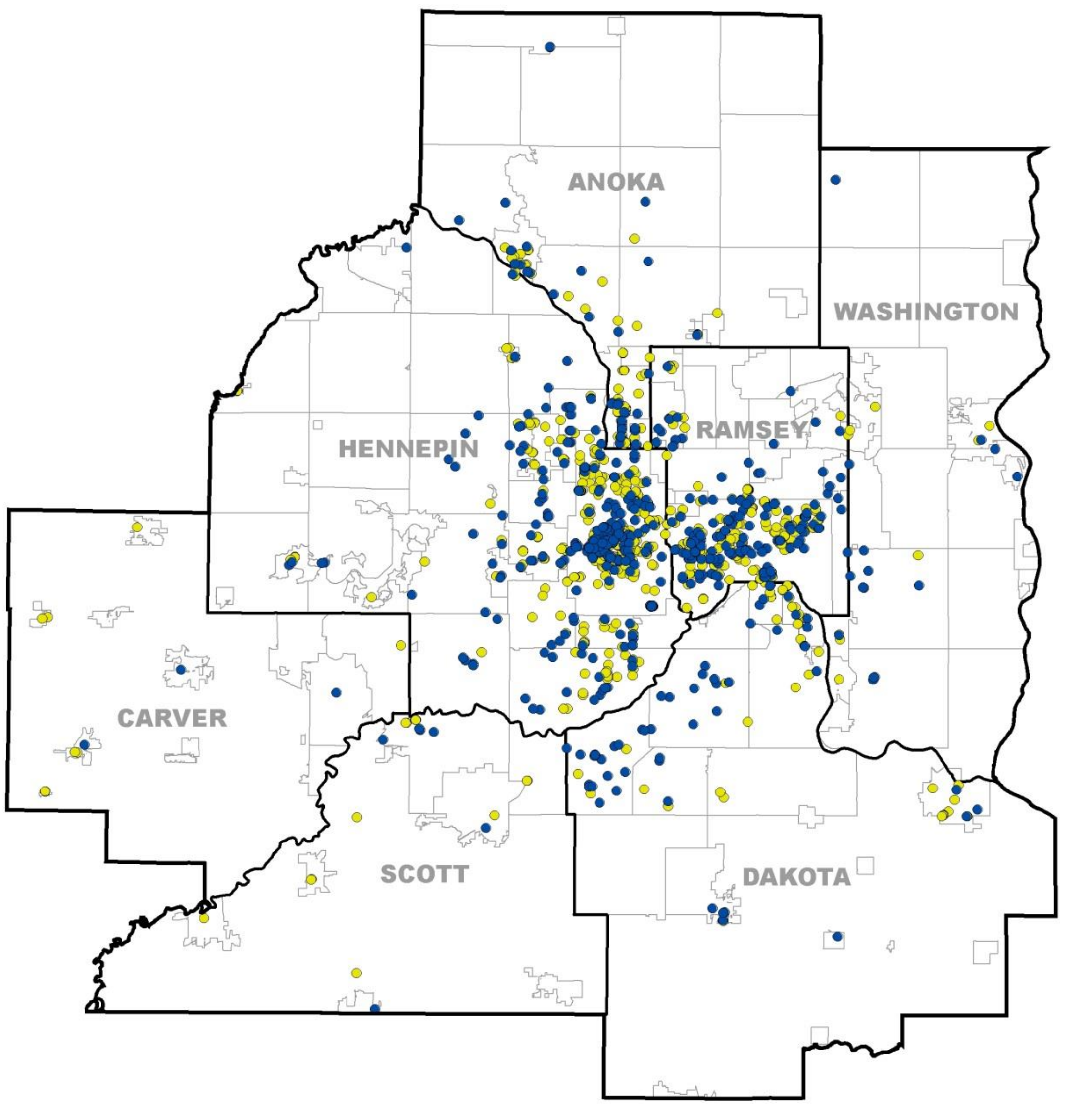
Building Class	Sold Properties with Pre-Sale & Current Rents Data Available (n=523)				All Sold Properties (n=1,294)			
	# of Sales	% of Sales	# of Units	% of Units	# of Sales	% of Sales	# of Units	% of Units
Class A	22	4.2%	4,503	12.3%	36	2.8%	6,132	12.1%
Class B	91	17.4%	13,220	36.1%	152	11.7%	15,801	31.2%
Class C	410	78.4%	18,911	51.6%	1,106	85.5%	28,757	56.7%
Total	**523**	**100%**	**36,634**	**100%**	**1,294**	**100%**	**50,690**	**100%**
Source: Minnesota Housing analysis of CoStar data.								

To determine the affordability for each unit, we used the current Payment Standards (the maximum allowable rent) for the Section 8 Housing Choice Voucher program as the affordability benchmark.[1] Appendix A provides the 2017 payment standards. We chose this benchmark for two reasons. First, preserving units where Housing Choice Vouchers can be used is a critical policy goal. Second, as the table in Appendix A shows, the payment standard is generally between 40% and 60% of area median income (AMI) for units with zero to three bedrooms, with units of that size making up most of the rental market. To determine a property's affordability before the sale, we deflated the current payment standard to account for inflation since the sale. It is possible for a property in this analysis to have both affordable and non-affordable units. This analysis examines affordability at both the property and unit level.

Map 1 on the next page compares the geographic distribution of the 523 sold properties where both the pre-sale and current rents are known with the sold properties where the pre-sale rents are unknown. The distributions are very similar. Just over 55% of sales with known pre-sale and current rents were located in Minneapolis and Saint Paul, closely resembling the distribution of all sales (61% of all sales were in Minneapolis and Saint Paul).

[1] https://www.housinglink.org/SubsidizedHousing/Section8VoucherMaps

Map 1: Sales of Market Rate Multifamily Properties Since 2010



Property Sales with Known Rents Pre- and Post-Sale (n=523)

Property Sales with Unknown Pre-Sale Rents (current asking rents may or may not be known; n=771)

Source: Minnesota Housing analysis of CoStar properties sold and rent data 1/1/2010 - 8/31/2017.

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Summary of Affordability Loss

Twin Cities Metro Properties Sold Since 2010 with Known Pre-Sale and Current Rents

Of the 523 properties with known pre-sale and current rents, 71 properties (13.6%) had units that lost their affordability since 2010. Overall, 7,591 units (20.7%) lost their affordability. Table 2 breaks out the types of units with lost affordability. Studio units make up a smaller share of the lost units (2.7%) than their share of the overall all rental market in the Twin Cities (7.5%). Two bedroom units made up a larger share of the lost units (45.7%) than their share of units in the overall market (40.0%).

Table 2: Units Lost by Unit Type

Unit Type	# of Units Lost	% of All Units Lost	% of All Metro Rental Units
Studio	208	2.7%	7.5%
1 Bedroom	3,576	47.1%	46.2%
2 Bedroom	3,471	45.7%	40.0%
3 Bedroom	336	4.4%	5.5%
4 Bedroom	0	0.0%	0.8%
Total	**7,591**	**100.0%**	**100.0%**

Source: Minnesota Housing analysis of CoStar data.

Buildings that lost affordability were either Class B or C buildings. While Class C buildings made up 76% of the lost properties (54 of 71 properties), they made up 56% of the lost units. Class C properties that lost affordability tend to be smaller and older properties. Table 3 provides information on building characteristics. Building class definitions can be found in Appendix B.

Table 3: Characteristics of Buildings That Lost Affordability

	Class B (n=17)	Class C (n=54)
Average # of Units	268	111
Median # of Units	251	65
Minimum # of Units	22	10
Maximum # of Units	698	414
Average Year Built	1978	1957
Median Year Built	1986	1964
25th Percentile for Year Built	1968	1935
75th Percentile for Year Built	1987	1972

Source: Minnesota Housing analysis of CoStar data.

While Table 3 highlights the key differences between Class B and C properties that lost affordability across the entire metro region, Tables 4 and 5 highlight the differences by location.

Table 4: Number of Sold NOAH Properties with Lost Affordability, by Type and Location

	Minneapolis and St. Paul	Suburbs	Total
Class B			
100 Units or Less	2	2	4
More than 100 Units	0	13	13
Total	2	15	17
Class C			
100 Units or Less	23	11	34
More than 100 Units	3	17	20
Total	26	28	54
All			
100 Units or Less	25	13	38
More than 100 Units	3	30	33
Total	28	43	71
Source: Minnesota Housing analysis of CoStar data.			

Table 5: Number of NOAH Units with Lost Affordability, by Type and Location

	Minneapolis and St. Paul	Suburbs	Total
Class B			
100 Units or Less	36	78	114
More than 100 Units	0	3,225	3,225
Total	36	3,303	3,339
Class C			
100 Units or Less	545	453	998
More than 100 Units	203	3,051	3,254
Total	747	3,505	4,252
All			
100 Units or Less	581	531	1,112
More than 100 Units	203	6,276	6,479
Total	784	6,807	7,591
Source: Minnesota Housing analysis of CoStar data.			

- As shown in Table 4, Minneapolis and St. Paul lost smaller properties, while suburban communities lost larger properties:

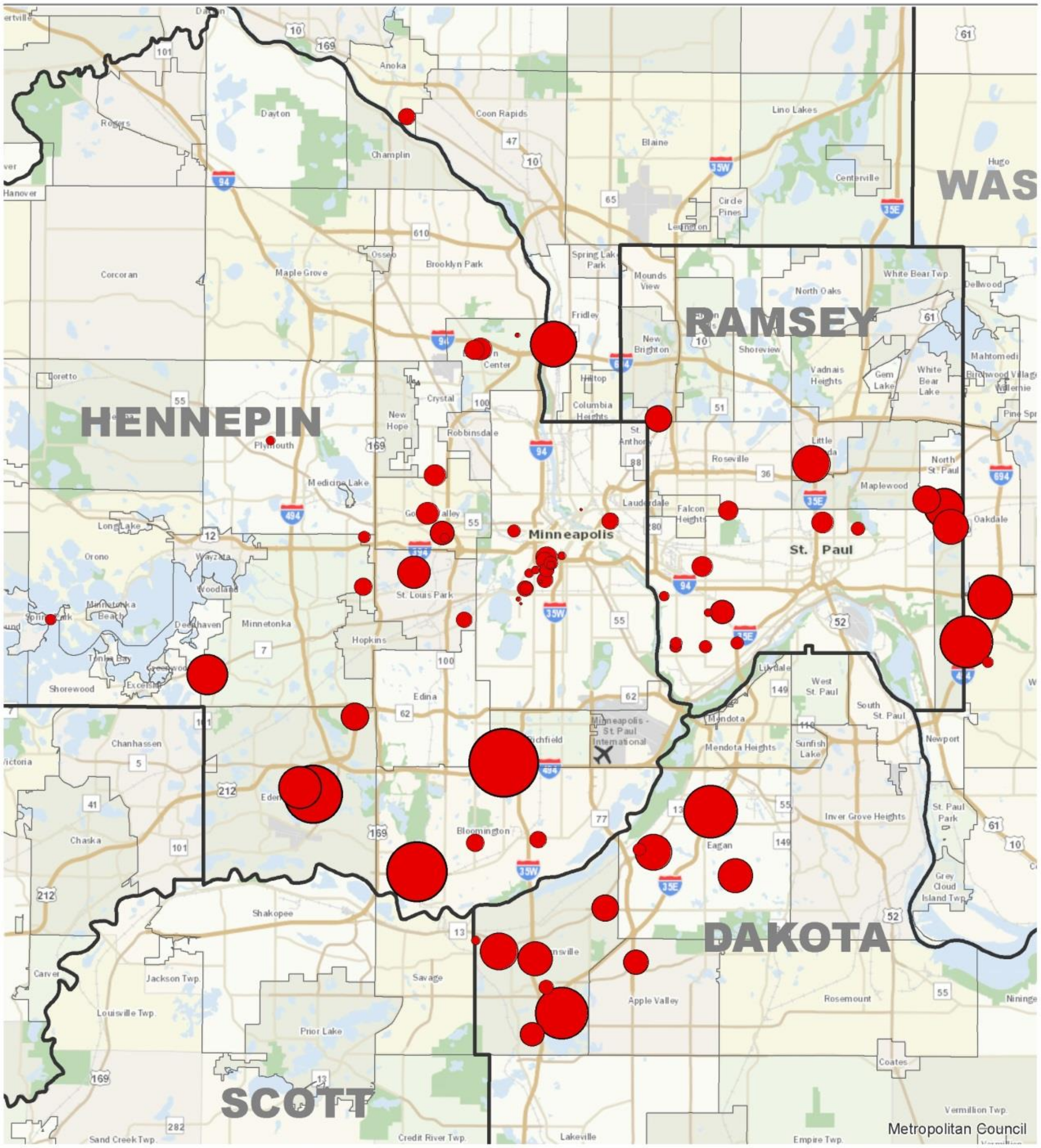
    - Only 2 of the lost Class B properties are in Minneapolis and Saint Paul, and both of these properties have fewer than 30 units. In contrast, 13 of the 15 lost Class B properties in the suburbs have more than 100 units.

    - Only 3 of the 26 lost Class C properties in Minneapolis and Saint Paul have more than 100 units. In contrast, 17 of the 28 lost Class C properties in the suburbs have more than 100 units.

- As shown in Table 5, Minneapolis and Saint Paul have 10% of the NOAH units that lost their affordability (784 of the 7,591 lost units), compared with 90% in the suburbs (6,807 units).

Map 2 identifies the properties that lost affordability since 2010 and highlights the size differences between suburban properties with those in Minneapolis and Saint Paul.

Map 2: Market Rate Properties that Lost Affordability (2010 - 2017)



Number of Units Lost

1,000

100

1

Maximum number of units that lost affordability at one property was 698 in Richfield, while two properties in Minneapolis only lost 1 unit.

0 2.25 4.5 Miles

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Source: Minnesota Housing analysis of CoStar properties sold and rent data 1/1/2010 - 8/31/2017.

Characteristics of Communities and Markets that Lost NOAH Units

To assess the characteristics of communities with lost affordability, we examined the share of NOAH units that lost their affordability in each census tract with other characteristics of the tract. It is a standard practice to use census tracts (which include roughly 1,500 households and 4,000 people) when assessing community characteristics. In this analysis, we used correlation coefficients to identify the community characteristics that are associated with losing NOAH units. Correlation coefficients range from 0 to 1, with a coefficient close to 0.5 reflecting a moderate association.

- NOAH properties with lost affordability tend to be in areas with higher rents. The correlation coefficient between the share of lost NOAH units and median rent is 0.46. Map 3 shows the median gross rent in each census tract and the location of Class B or C properties by NOAH status.

- We also examined several other community characteristics, but none had a clear association with losing NOAH units[2]. These characteristics included;
    - Change in rent
    - Change in home sale prices
    - Median household income
    - Change in household income
    - Share of all rental units that are affordable

As show in Map 4, there are currently concentrations of NOAH units in communities across the metro area, including Hopkins and Brooklyn Park. Just over 65% of NOAH units are currently located in the suburbs. There are also pockets in Minneapolis and Saint Paul neighborhoods, including:

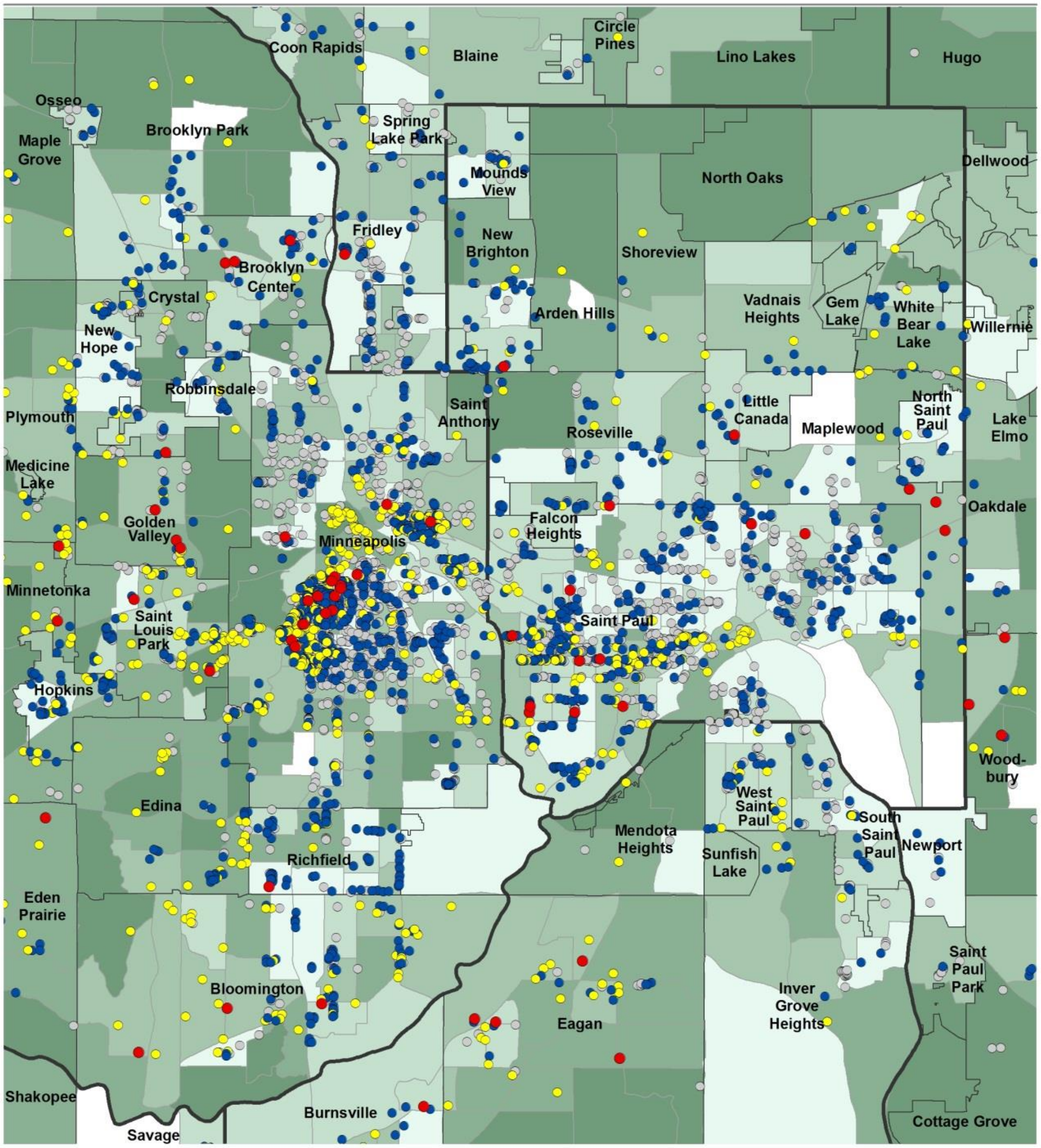
- In Minneapolis - the Lowry Hill and Marcy Holmes neighborhoods. Properties in these neighborhoods tend to be smaller (<50 units) Class C properties.

- In Saint Paul - the North End, Payne-Phalen, Dayton's Bluff, Greater East Side, and the West 7th neighborhoods. There are some larger Class B and C properties located in these areas.

Comparing Maps 2 and 4 also shows that the southern metro has already lost most of its large NOAH properties.

[2] We also examined all Census tracts (n=437) that had at least one affordable unit to see if any correlation exists either positive or negative with these same characteristics. No significant correlation was found.

Map 3: Affordability and Median Gross Rent by Census Tract



- Property Lost Affordability After Sale
- Has NOAH Units
- No NOAH Units
- Unknown Affordability

Median Gross Rent

- $361 - $851
- $853 - $948
- $949 - $1,107
- $1,109 - $1,314
- $1,319 - $2,771

0 1.5 3 Miles

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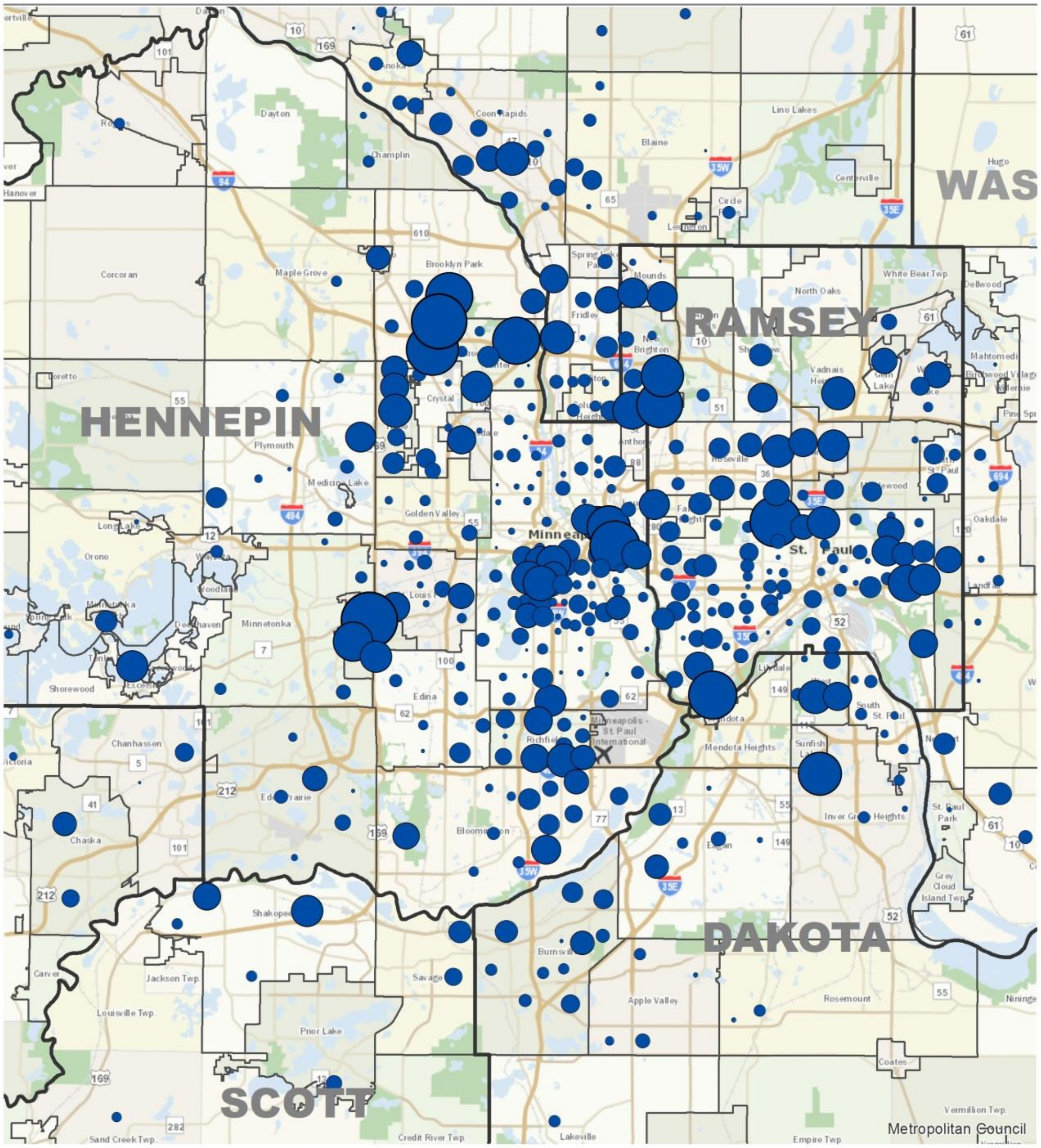
Source: Minnesota Housing analysis of CoStar properties sold and rent data 1/1/2010 - 8/31/2017. American Community Survey 5-Year ACS 2012-2016.

Map 4: Number of Market Rate Units Naturally Affordable



Number of Units Naturally Affordable by Census Tract

1,000
100
1

0 2.25 4.5 Miles

Source: Minnesota Housing analysis of CoStar properties.

Estimates of Annual Properties and Units Lost

The analysis up to this point has focused on properties with known pre-sale and current rents that sold between 2010 and 2017 in the Twin Cities metro area, which only reflects part of the picture. Nevertheless, we can extrapolate the results to the larger market.

Metro Area Estimate: Assuming that the 771 sold properties with incomplete data lost NOAH units at the same rate as the 523 sold properties with complete data, we estimate that the Twin Cities metro area lost approximately 176 properties and nearly 10,500 units since 2010, which is roughly 22 properties and just over 1,300 units annually on average.

This estimate only includes properties with four or more units, which is the scope of the CoStar data. Assuming that CoStar captures most property sales, this estimate should be a relatively accurate estimate for properties with four or more units. Based on data from the Census Bureau's American Community Survey (ACS), the seven-county metro area has roughly 256,000 units in properties with three or more units, and the CoStar database captures nearly 100% of those units. (The ACS combines three and four unit building into the same category, and they cannot be separated for analysis.)

The map in Appendix C highlights affordability for the entire 7-county Twin Cities metro area.

Statewide Estimate: Assuming that Greater Minnesota is losing NOAH units at the same rate as the metro area, we estimate that Minnesota is losing roughly 2,000 NOAH units each year. Minnesota has 396,500 rental units in properties with three or more units, with 65% in the metro area and 35% in Greater Minnesota.

Appendix A: Payment Standards by City or County (2017)

City/County	0-BR	1-BR	2-BR	3-BR	4-BR	5-BR	6-BR
Anoka	$700	$900	$1,090	$1,540	$1,800	$2,070	$2,340
Apple Valley	$675	$880	$1,075	$1,450	$1,725	$1,925	$2,125
Bloomington	$680	$860	$1,030	$1,395	$1,635	$1,880	$2,120
Burnsville	$675	$880	$1,075	$1,450	$1,725	$1,925	$2,125
Carver	$700	$900	$1,090	$1,540	$1,800	$2,070	$2,340
Chanhassen	$765	$945	$1,190	$1,690	$1,975	$2,275	$2,570
Chaska	$765	$945	$1,190	$1,690	$1,975	$2,275	$2,570
Dakota	$650	$820	$1,025	$1,425	$1,700	$1,925	$2,125
Eagan	$675	$880	$1,075	$1,450	$1,725	$1,925	$2,125
Eden Prairie	$765	$945	$1,190	$1,690	$1,975	$2,275	$2,570
Edina	$765	$945	$1,190	$1,690	$1,975	$2,275	$2,570
Excelsior	$765	$945	$1,190	$1,690	$1,975	$2,275	$2,570
Farmington	$650	$820	$1,025	$1,425	$1,700	$1,925	$2,125
Golden Valley	$765	$945	$1,190	$1,690	$1,975	$2,275	$2,570
Hastings	$650	$820	$1,025	$1,425	$1,700	$1,925	$2,125
Hennepin	$700	$900	$1,090	$1,540	$1,800	$2,070	$2,340
Hopkins	$765	$945	$1,190	$1,690	$1,975	$2,275	$2,570
Inver Grove Heights	$675	$880	$1,075	$1,450	$1,725	$1,925	$2,125
Lakeville	$675	$880	$1,075	$1,450	$1,725	$1,925	$2,125
Maple Grove	$765	$945	$1,190	$1,690	$1,975	$2,275	$2,570
Mendota Heights	$675	$880	$1,075	$1,450	$1,725	$1,925	$2,125
Minneapolis	$734	$896	$1,129	$1,492	$1,691	$1,945	$2,222
Minnetonka	$765	$945	$1,190	$1,690	$1,975	$2,275	$2,570
Plymouth		$915	$1,125	$1,575	$1,812		
Ramsey	$700	$900	$1,090	$1,540	$1,800	$2,070	$2,340
Richfield	$710	$890	$1,110	$1,500	$1,755	$1,890	
Rosemount	$650	$820	$1,025	$1,425	$1,700	$1,925	$2,125
Roseville	$765	$945	$1,190	$1,690	$1,975	$2,275	$2,570
Saint Anthony	$765	$945	$1,190	$1,690	$1,975	$2,275	$2,570
Saint Louis Park	$650	$900	$1,090	$1,540	$1,650	$1,885	
Saint Paul	$711	$864	$1,089	$1,438	$1,775	$2,041	$2,307
Scott	$699	$905	$1,050	$1,400	$1,700	$1,900	$2,150
Shoreview	$765	$945	$1,190	$1,690	$1,975	$2,275	$2,570
Washington	$699	$862	$1,086	$1,538	$1,799	$2,068	$2,339
West Saint Paul	$650	$820	$1,025	$1,425	$1,700	$1,925	$2,125
COMPARISON: Metro Rents at 60% of AMI*	$949	$1,017	$1,221	$1,410	$1,573	$1,736	$1,898
COMPARISON: Metro Rents at 50% of AMI*	$791	$848	$1,017	$1,175	$1,311	$1,446	$1,582
COMPARISON: Metro Rents at 40% of AMI*	$633	$678	$814	$940	$1,049	$1,157	$1,265

*These rent limits are based on the limits for Housing Tax Credit properties (Multifamily Tax Subsidy Projects – MTSP), which are very similar to but slightly different than Area Median Income (AMI) rents limits. We use the AMI label because it is more widely known than the MTSP label.

Appendix B: Building Class Definitions

This report used three classes of rental properties, which are defined below.

Class A Buildings

These are typically luxury apartments that are less than 10 years old and have high-end amenities and higher rents. Properties are typically located in desirable areas. In the Twin Cities metro area, average asking rents range from $1,300 for a studio to over $2,000 for 3+ bedrooms (CoStar).

Class B Buildings

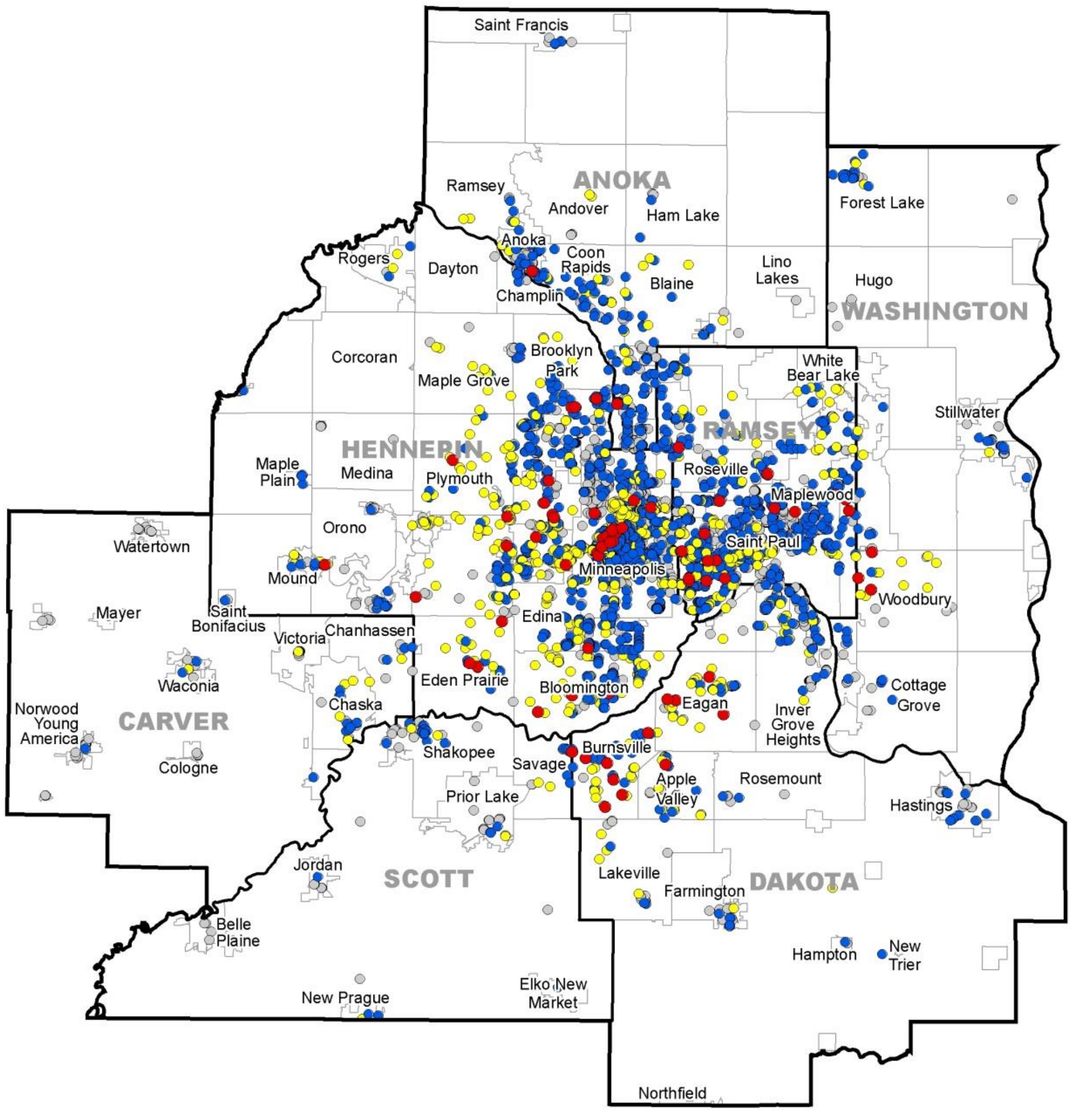
These buildings are generally well-maintained and between 10-30 years old. They have some amenities, but fewer than Class A Buildings. In the Twin Cities metro area, average asking rents range from $1,000 for a studio to over $1,700 for 3+ bedrooms (CoStar).

Class C Buildings

This is the most common building class in the Twin Cities metro area. Buildings are typically 30+ years old and have standard finishes and few, if any, amenities. Twin Cities metro area average asking rents range from $775 for a studio to $1,400 for 3+ bedrooms (CoStar).

Appendix C: Affordability Across the 7-County Metro Area

Map 5: Market Rate Multifamily Property Affordability



Market Rate Property Affordability

- Lost NOAH Units
- Has NOAH Units
- Unknown Affordability
- No NOAH Units

0 4.25 8.5 Miles

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Source: Minnesota Housing analysis of CoStar properties sold and rent data 1/1/2010 - 8/31/2017.