



AEI Housing Center

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North Dakota Housing Initiative Advisory Committee: *Putting North Dakota's Housing Market in Perspective and Achieving Housing Supply Abundance*

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Link to AEI Housing Market Indicators:

<https://www.aei.org/housing/housing-market-indicators/>

Link to AEI Housing and Economic Analysis Toolkit (HEAT):

<https://heat.aeihousingcenter.org/toolkit>

Link to AEI Housing Center Good Neighbor (GNI) Toolkit

https://aeihousingcenter.org/good_neighbors_toolkit/

Disclosure:

The author has a financial relationship with Places Platform LLC, which is interested in meeting housing supply shortages through walkable oriented development and in the development of metrics for all types of real estate.

Two Thought Experiments

Thought experiment #1:

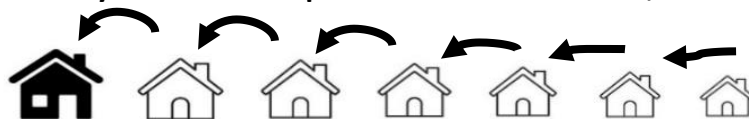
- *Imagine car manufacturers could only legally build Ferraris. Filtering of new cars down to used ones would be limited as few new cars would be sold, used car prices would sky-rocket, and few could afford either new or used cars.*
- *Instead, new cars are built across a wide range of price points, yielding a broad range of serviceable used cars, so everyone who wants a serviceable car gets one, with no subsidies required.*

Thought experiment #2:

- *Imagine motel/hotel developers could only build Ritz Carltons. Filtering of new rooms down to used ones would be extremely limited as few rooms would be built, existing room rates would sky-rocket, and few could afford to stay.*
- *Instead, new rooms are built across a wide range of price points, yielding a broad range of acceptable room options, so virtually everyone who wants a room gets one, with no subsidies required.*
- *Just think about the variety available at any highway interchange.*
- *Yet zoning, land and construction costs, land use restrictions, financing, and labor availability don't seem to interfere.*

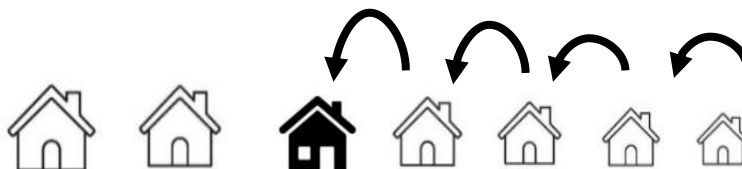
Adding supply at the high end yields few new homes and little move-ups from less expensive housing.

- **High end housing promoted by exclusionary zoning, government subsidies, so-called inclusionary zoning, and high density transit zones add housing affordable only to a few or require substantial subsidies, with little filtering being triggered.**



Adding lots of supply in the middle with light touch density (LTD) reduces supply/demand imbalances and yields a greatly increased number of move-ups from less expensive housing—freeing up those units for filtering down to lower income households.

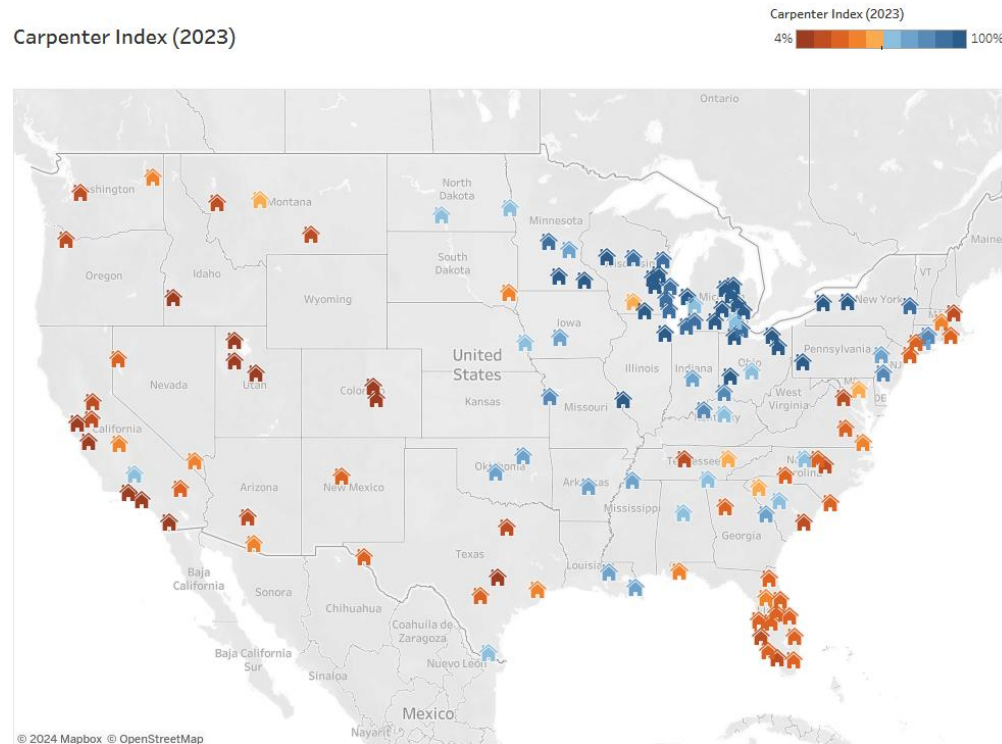
- **This market-oriented approach unleashes American ingenuity by swarms of property owners, small businesses, and workers.¹**
- **This yields a large increase of naturally affordable and inclusionary housing.**



¹ <https://www.strongtowns.org/journal/2021/2/3/unleash-the-swarm>

Except for the Upper Midwest, it was much harder to buy an entry-level home in 2023 than in 2012

- Our Carpenter Index has tracked this trend for 100 large metros since 2012 (plus additional metros in ND, MT, SD, MN, WI, and MI).
 - In 2012 for the 100 large metros, the median metro score was **89%** (the share of entry level homes the average carpenter household can afford), with 20 scoring 100%.
 - Only 6 were below 50% (4 in CA, 1 in HI, and DC).
 - In 2023 for the same 100 large metros, the median metro score was **35%**, with only 3 scoring 100%.
 - 60 were below 50% and 21 were below 20%.
 - 9 metros in CA, UT, and CO scored below 10% (San Jose, Oxnard, and San Diego all scored 4%).
 - Median annual carpenter household income in 2023 was about \$85,000.
 - Carpenter households fared much better in Midwest and North Central metros.

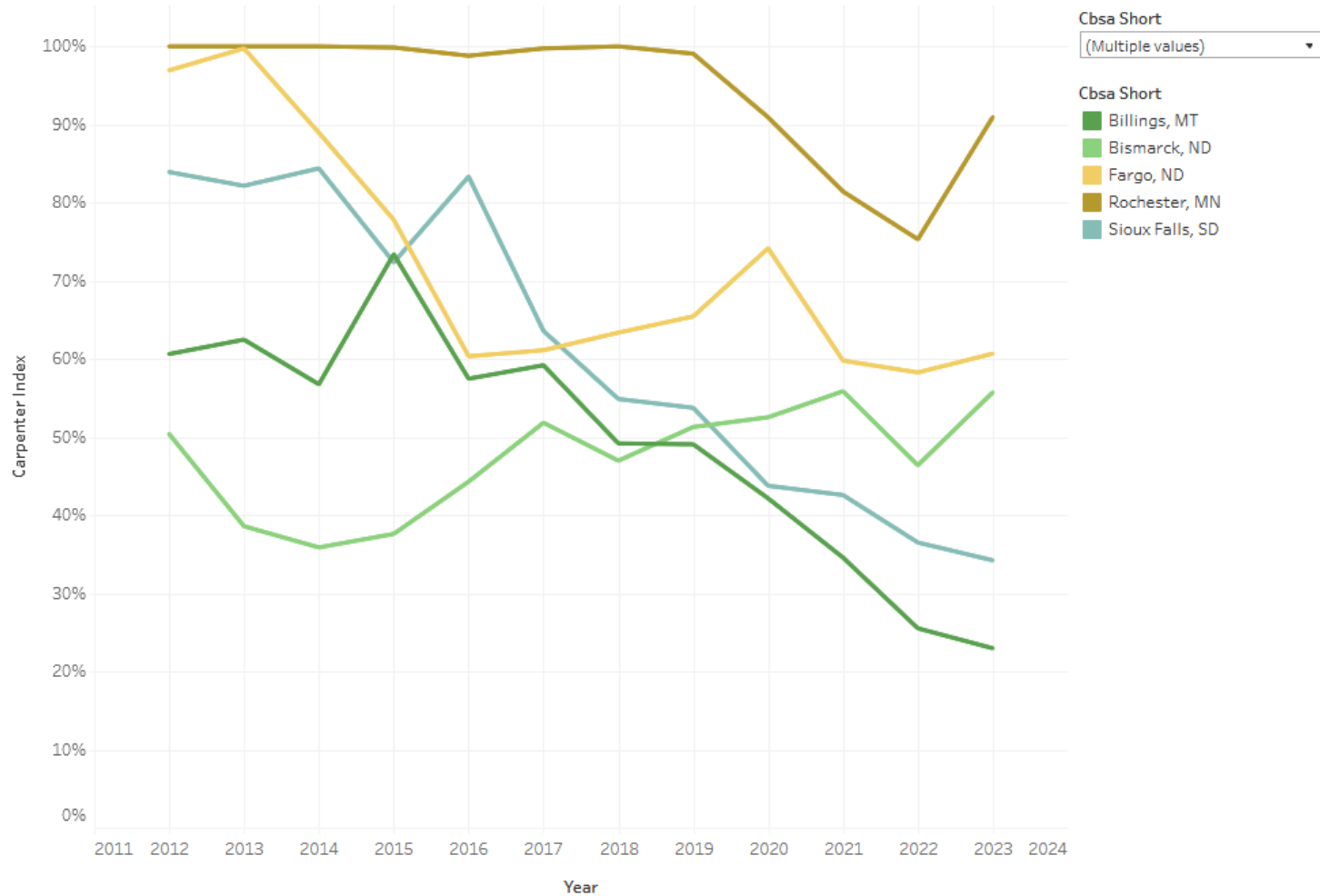


Note: Data are limited to the largest 100 metros, as well as largest 400 metros in ND, SD, MN, and MT that have a population in 2019 between 100,000 and 300,000. We rank metros based on their purchase home sales from 2012 to 2019 in the Public Records.

Source: Bureau of Labor Statistics, Public Records, and AEI Housing Center, www.AEI.org/housing.

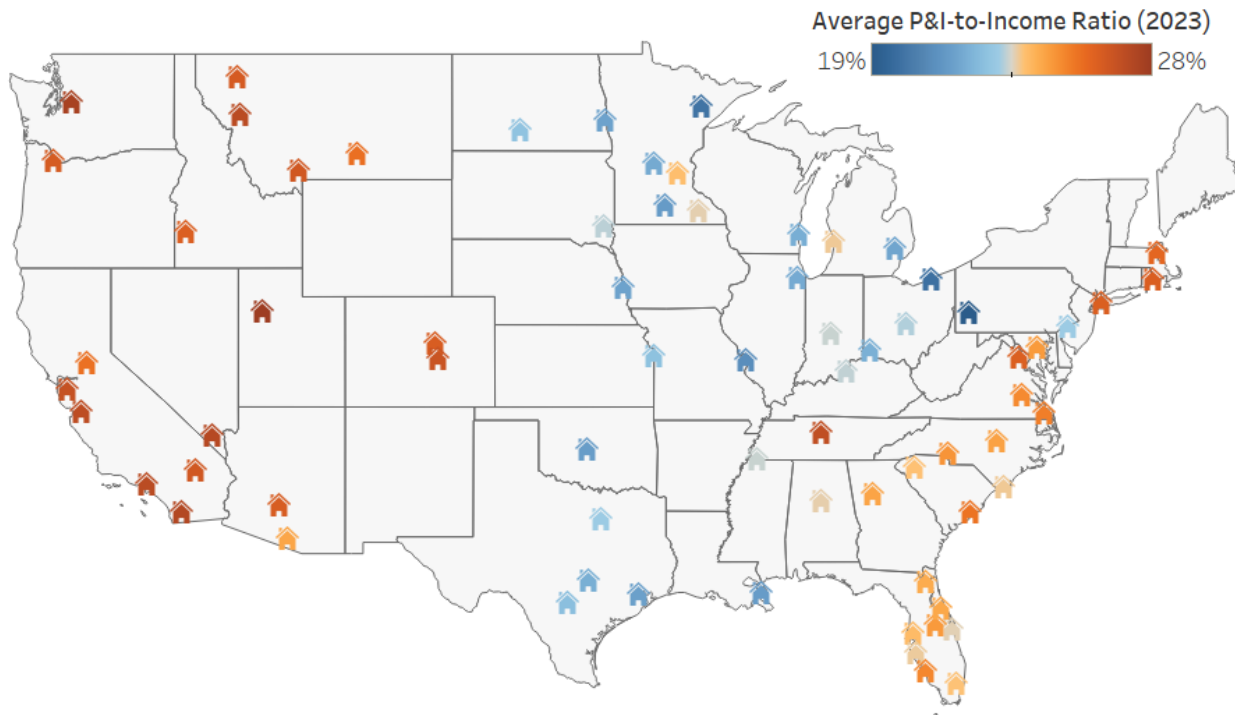
At 61% and 56% respectively, Fargo and Bismarck's Carpenter Households Have Fared Better than Those in Billings and Sioux Falls, and the Nation as a Whole (not shown)

Carpenter Index Over Time



While it takes more to be a first-time homebuyer (FTB), where you buy makes a difference

- **First-time Homebuyers (FTBs) dedicated a growing share of their income to P&I payments, rising from 17.0% in 2013 to 23.7% in 2023. Add in property taxes, homeowners insurance, and mortgage insurance, and these are estimated to increase to 23.7% in 2013 and 30.5% in 2023.**
 - There is a distinct regional pattern of how much of income the average FTB is spending on P&I.
 - Shares are highest in metros west of Denver. They are generally higher in metros along the Eastern Seaboard, with a couple exceptions such as Philadelphia and Myrtle Beach. They are also generally lower in metros in the Midwest and South, with Nashville a notable outlier.
 - **Fargo and Bismarck, at 22% and 23% in 2023 respectively, were both slightly below average.**



Note: Data are limited to the largest 60 metros, as well as largest 400 metros in ND, SD, MN, and MT that have a population in 2019 between 100,000 and 300,000. We rank metros based on their purchase home sales from 2012 to 2019 in the Public Records.

Source: Agency MBS data, Public Records, HMDA, and AEI Housing Center, www.AEI.org/housing.

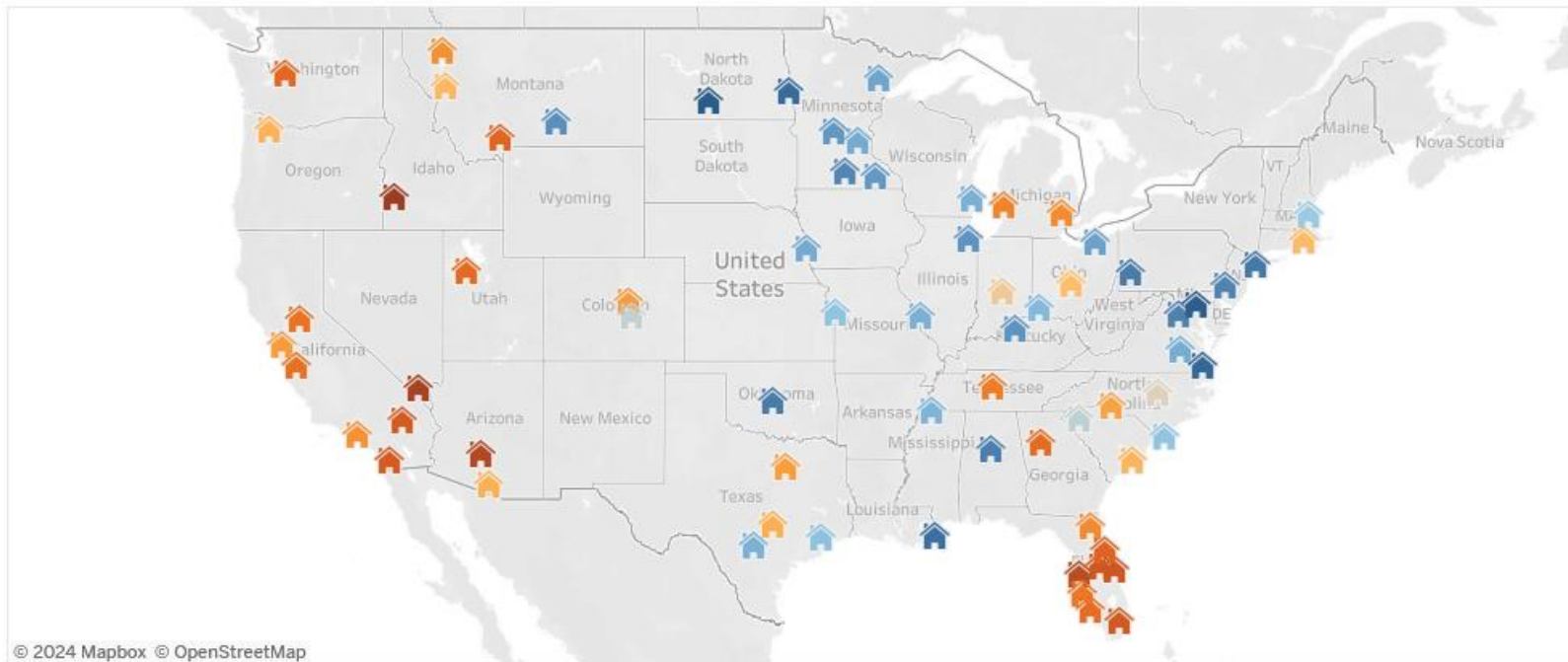
Cumulative Home Price Appreciation (HPA) Has Been Much Lower in Upper Midwest and North Central Metros

- At 81% and 91%, Bismarck and Fargo ranked at #1 and #3 in terms of the having the lowest cumulative HPA (Jan. 2012-May 2024) among all the metros shown on the map below.

Cumulative HPA (Jan. 2012 - May 2024) by Metro

Cumulative HPA

81%  254%



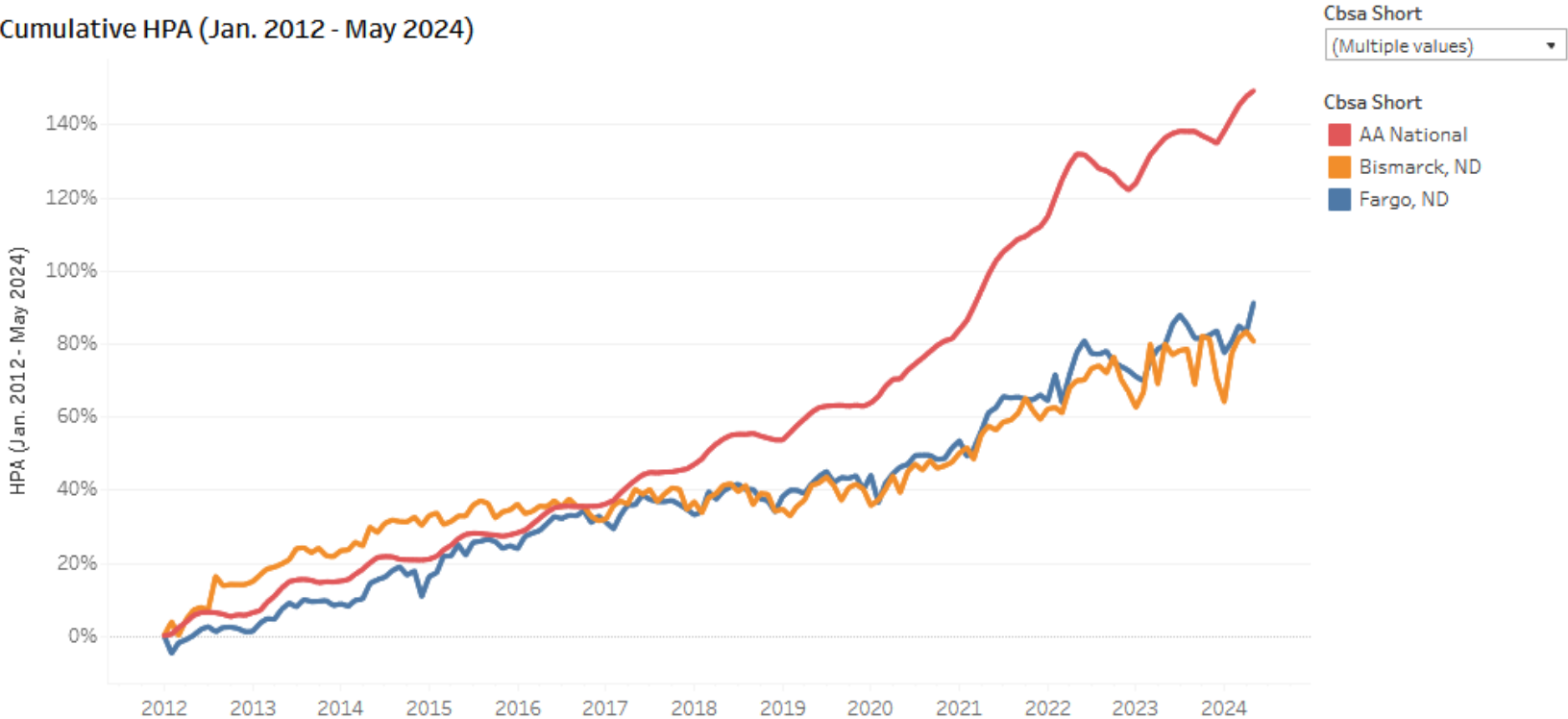
YoY HPA

Note: Data are limited to the largest 60 metros, as well as largest 400 metros in ND, SD, MN, and MT that have a population in 2019 between 100,000 and 300,000. We rank metros based on their purchase home sales from 2012 to 2019 in the Public Records.

Source: Public Records and AEI Housing Center, www.AEI.org/housing.

Cumulative Home Price Appreciation for Bismarck & Fargo Have Largely Tracked the National Trend from 2012-2017. After 2017, the National Trend Began to Substantially Exceed Bismarck & Fargo's, Especially once the Pandemic Began. Post-Pandemic, Bismarck & Fargo Continue to Lag the National Trend.

Cumulative HPA (Jan. 2012 - May 2024)

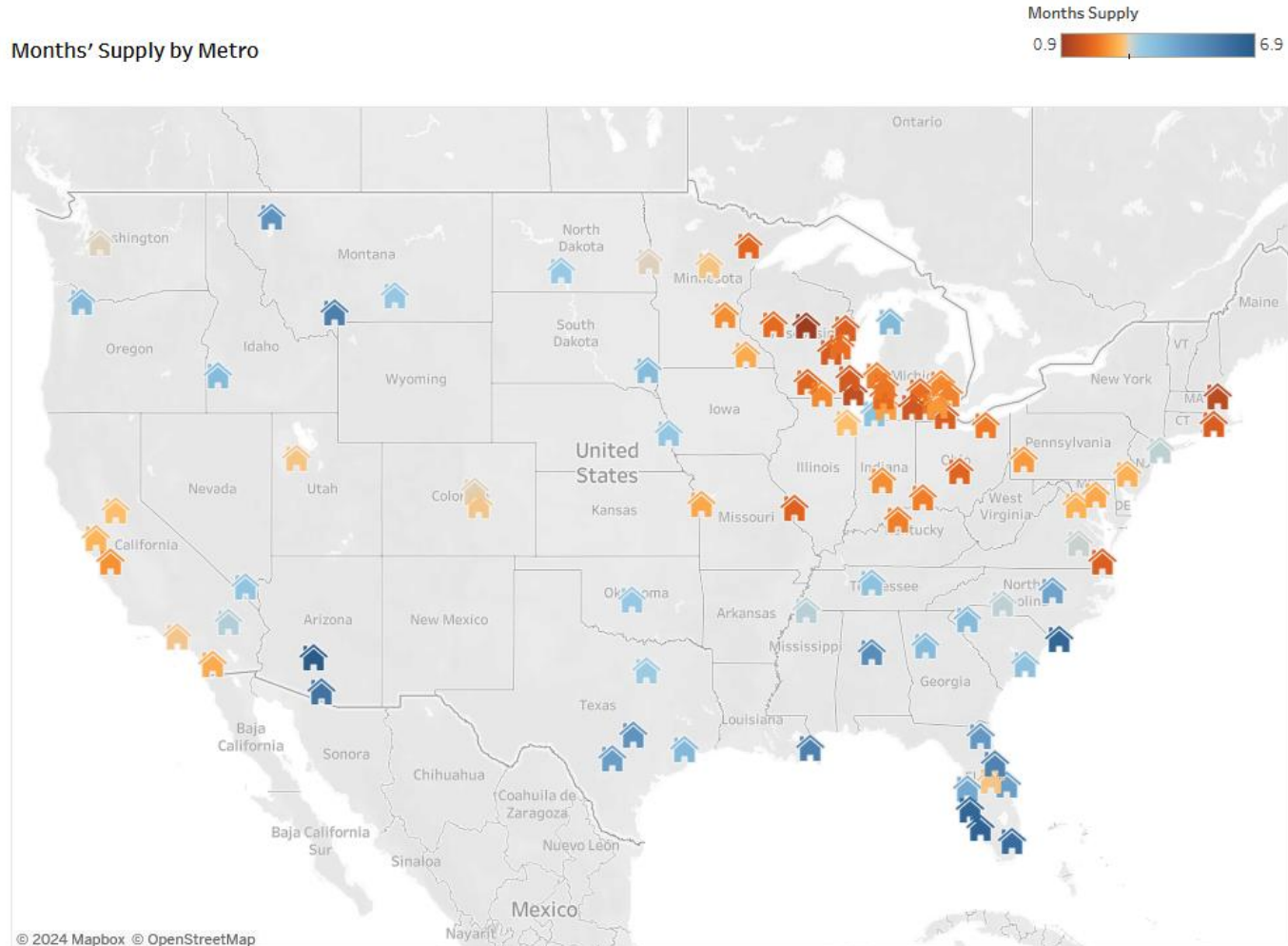


Source: Public Records and AEI Housing Center, www.AEI.org/housing.

Fargo and Bismarck's Month's Remaining Supply Stood at 3.0 and 3.4, Indicative of Strong Seller's Markets

- **Smaller sized metros in:**

- Minnesota, Wisconsin, and Michigan are experiencing even stronger seller's markets.
- Montana and South Dakota are experiencing somewhat weaker seller's markets.



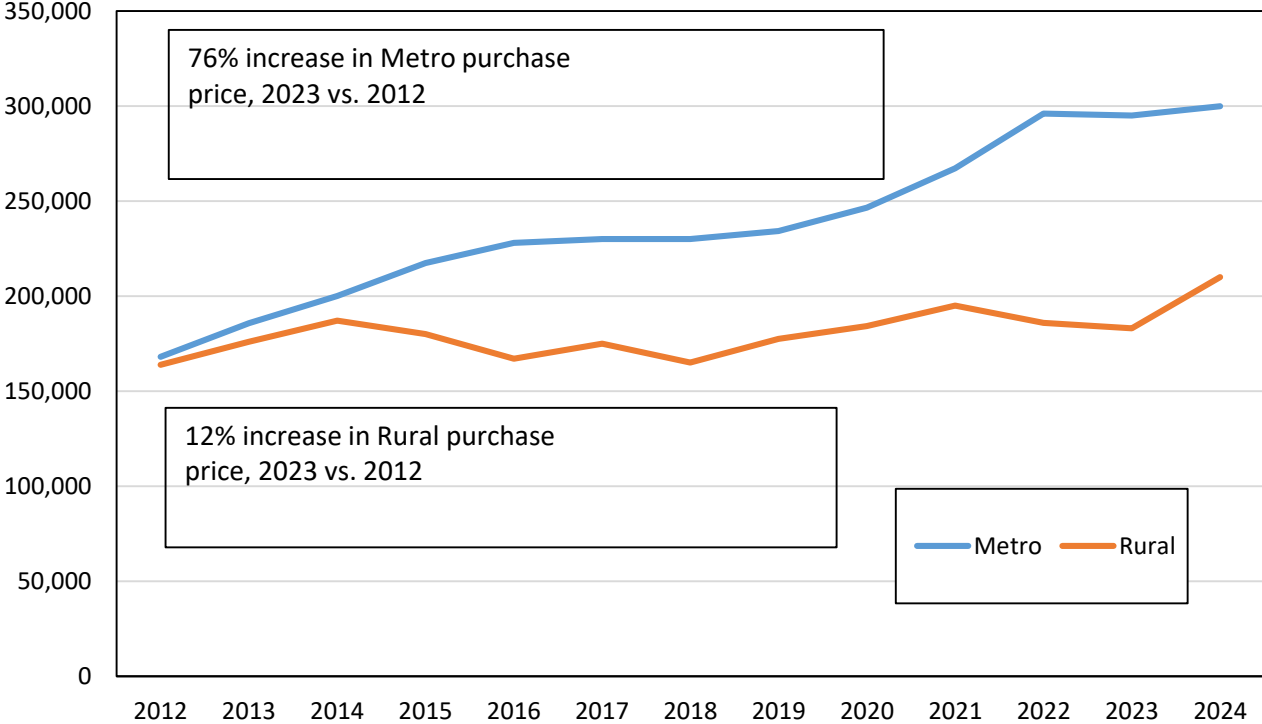
Note: Data are limited to the largest 60 metros, as well as largest 400 metros in ND, SD, MN, and MT that have a population in 2019 between 100,000 and 300,000. We rank metros based on their purchase home sales from 2012 to 2019 in the Public Records.

Source: Realtor.com, Zillow, and AEI Housing Center, www.AEI.org/housing.

North Dakota: Metro vs. Rural Comparison – Median Purchase Price (Nominal)

- In 2012, rural and metro median home purchase prices were about the same (\$164,000 and \$168,000 respectively).
- Since then, rural home prices have increased much more slowly than metro home purchase prices.
 - Over the period 2012 to 2023, rural home prices increased by 12%, while metro prices increased by 76% .

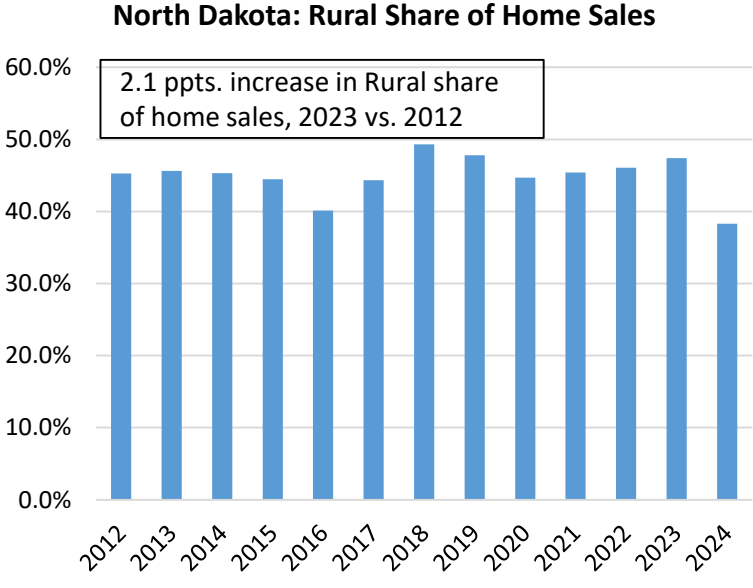
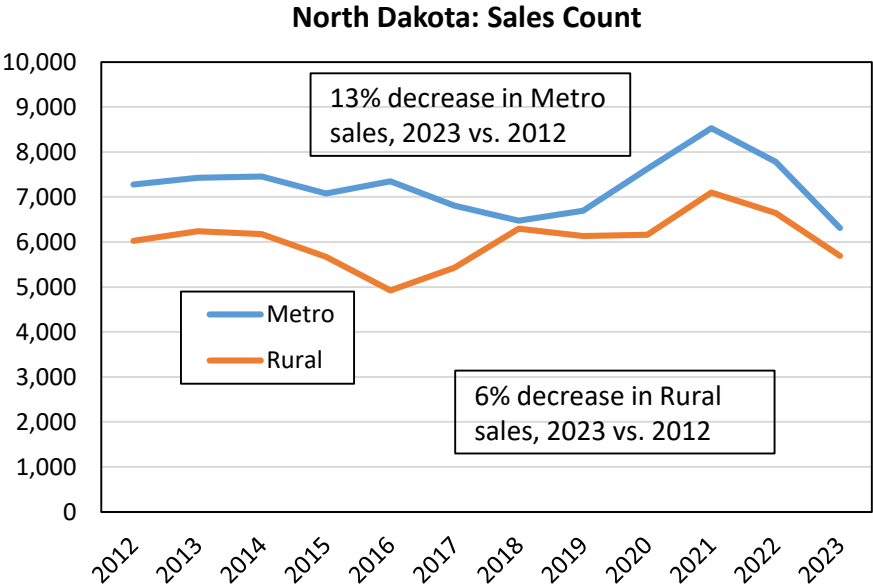
North Dakota: Median Purchase Price by Location



Source: AEI Housing Center, www.AEI.org/housing.

North Dakota: Metro vs. Rural Comparison – Sales Count and Rural Share

- Since over the period 2012 to 2023, rural and metro home sales counts have each stayed in a relatively narrow band (left panel chart).
- The rural share has fluctuated relatively narrowly between 38% and 49% (right panel chart).

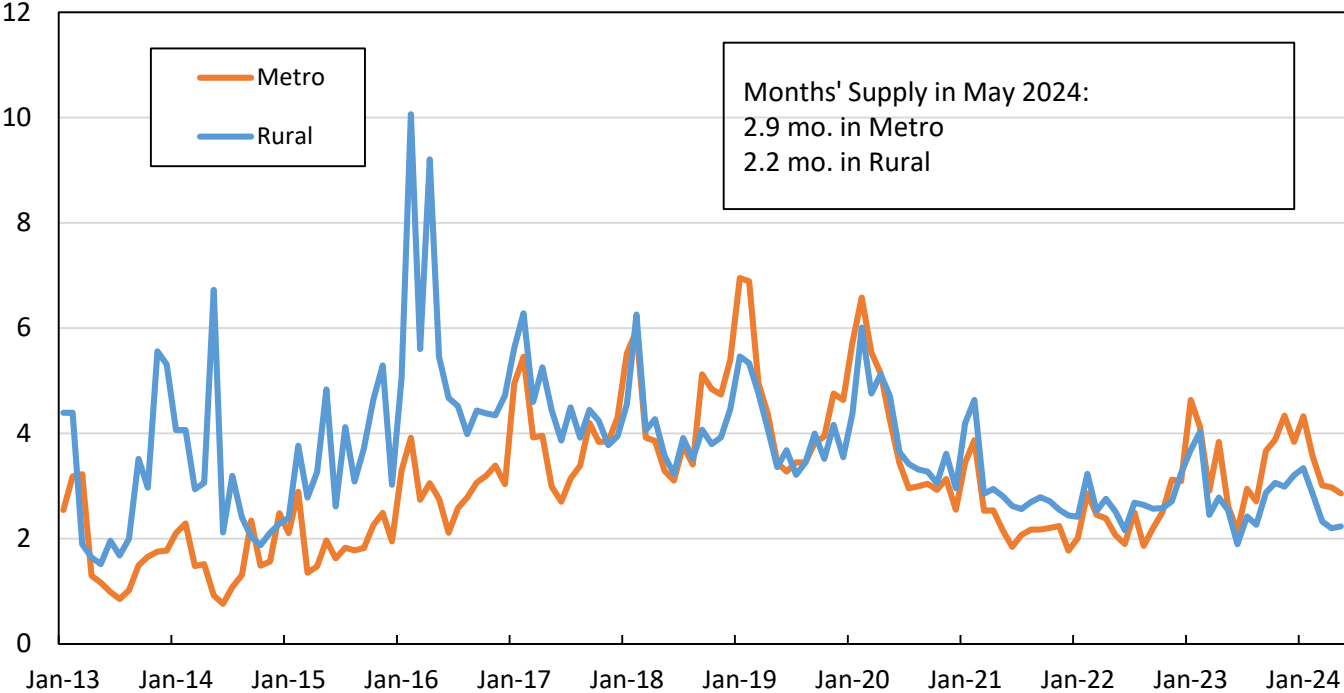


Source: AEI Housing Center, www.AEI.org/housing.

North Dakota: Metro vs. Rural Comparison – Months' Supply by Location

- From 2013 to 2017, rural months' supply was above the level for metros.
- Since then, months' supply levels have been quite similar and trending down.

North Dakota: Months' Supply by Location

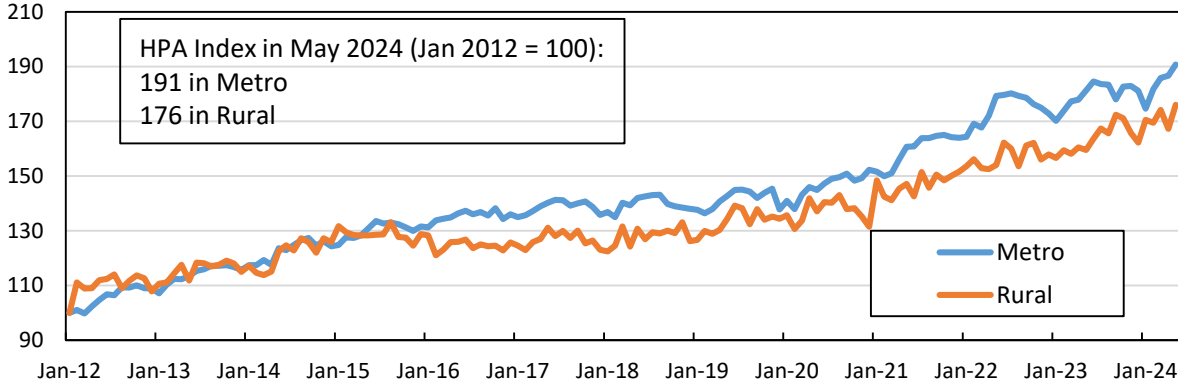


Source: AEI Housing Center, www.AEI.org/housing.

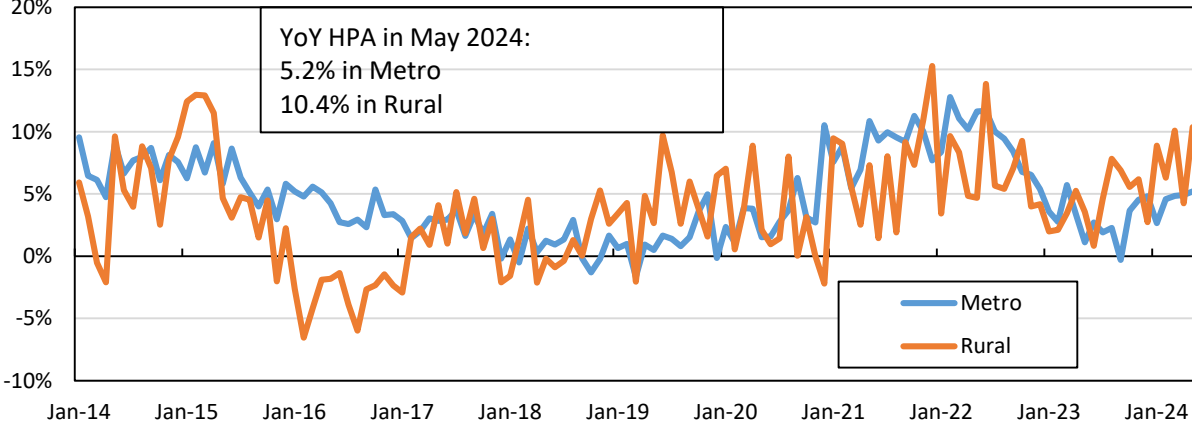
North Dakota: Metro vs. Rural Comparison – Constant Quality Home Price Appreciation (HPA)

- After tracking each other closely from 2012-2015, rural HPA declines in 2016-early 2017 created a clear separation with the metro trend, a separate that has continued.
- For the last 10 months, rural year-over-year (y-o-y) HPA has exceeded metro HPA growth.
 - In April 2024, rural y-o-y HPA (10.4%) was double metro HPA (5.2%)

North Dakota: HPA (Index: Jan-2012 = 100) by Location



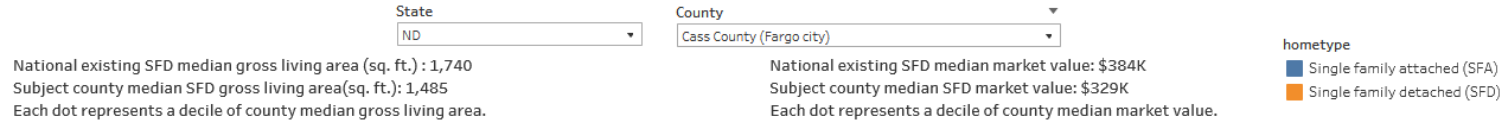
North Dakota: Year-over-Year HPA by Location



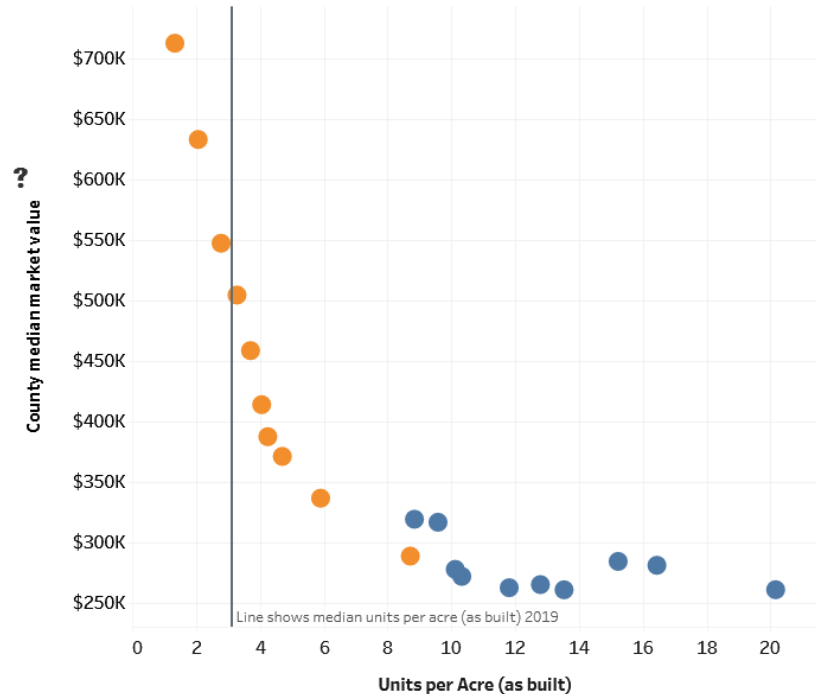
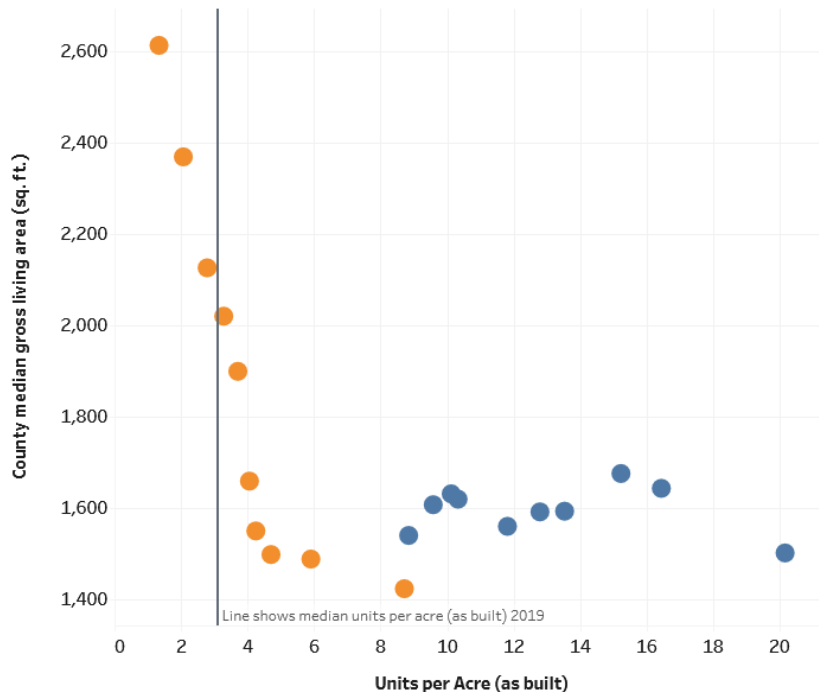
It takes more to be a first-time homebuyer (FTB), but what you buy (and build) makes a difference

- By increasing as built density (units/acre), SFD & SFA gross living area (GLA) & price both drop, unleashing naturally affordable housing & promoting filtering, as lower cost housing is purchased or rented by lower income households.
 - Across 280 counties, these relationships had a correlation of 84% & 60% for SFD & SFA respectively.
- Housing abundance requires building new homes near the median price for existing SFD stock (**Cass Co.: \$329,000**).
 - 20% of **Cass** SFD homes are priced around this median, yet 100% of SFA homes are priced below the median.
 - But, only 5% of **Cass** single-family homes built since 2000 been SFA (& require about 1/3 the land of SFD).
 - Sprawl and infrastructure costs can be reduced by allowing smaller SFD lots (6-9 homes/acre), and building more duplex/twin homes (8-10/acre), and SFA homes (14-20 home/acre)

Lot Size, Gross Living Area (GLA), Market Value, & Indexed Property Tax Revenue for *Single Family Detached (SFD) and Attached (SFA)*



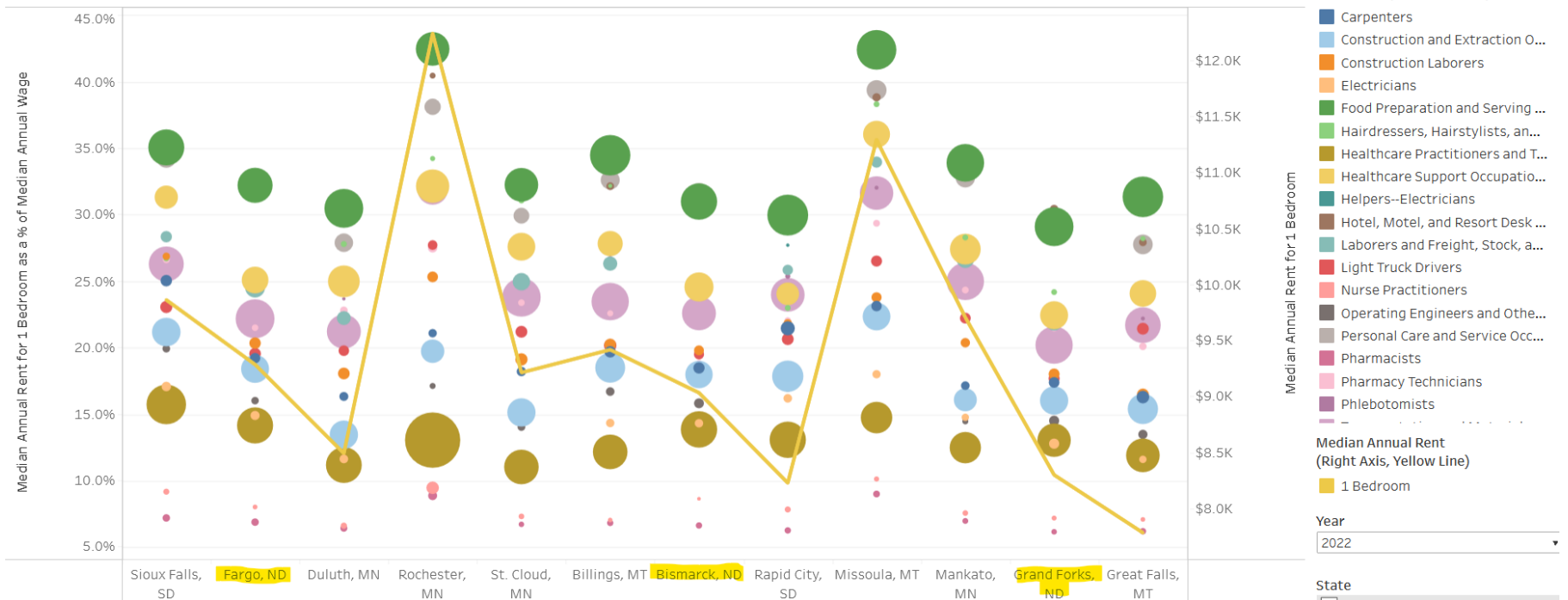
Note: There were 4,842 new SFD and 235 new SFA homes built in Cass County, ND from 2000 to September 2023.



Wages by Occupation and Rents for Fargo, Bismarck, and Grand Forks in 2022 Are Not at Levels Indicative of Excessive Rent Pressure. This Is Confirmed by ND CoC's Extremely Low Point-in-Time Count of 1 per 1000 in 2023.

10. Wage by Occupation & Annual 1-Bedroom Rent by CBSA

CBSA Wage by Occupation (left axis, dots) and Rent (right axis, orange line), for self-selected CBSA

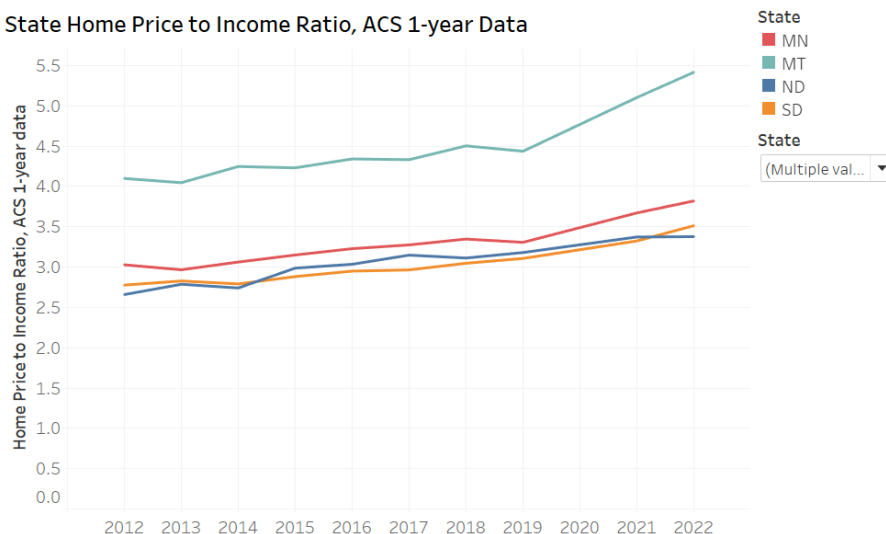


Source: 2013-2017, 2017-2021 5 year American Community Survey, 2013-2022 1-year American Community Survey, Wage Statistics (OEWS) by Bureau of Labor Statistics, and AEI Housing Center, www.AEI.org/housing.

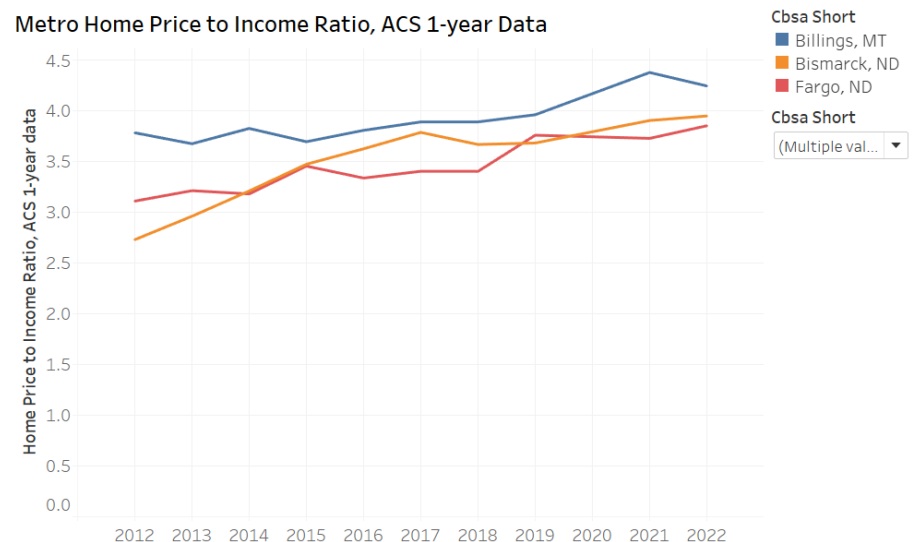
Median Home Price to Median Household Income Ratio (Price/Income Ratio)

- **Among the four states shown (left panel chart):**
 - Montana, in 2022, had the highest Price/Income Ratio at 5.5, up from 4.2 up 2012.
 - **North Dakota**, South Dakota, and Minnesota all had similar Price/Income Ratios and trends.
 - In 2022, these were: North Dakota (3.4), South Dakota (3.5), and Minnesota (3.8)
- **Among the three metros shown (right panel chart):**
 - Billings, Montana, in 2022, had the highest Price/Income Ratio at 4.2, up from 3.7 up 2012.
 - **Bismarck and Fargo** had identical Price/Income Ratios in 2022 at 3.9.
 - In 2012, **Bismarck and Fargo** were at 2.8 and 3.3 respectively.
 - If these upward trends are allowed to continue, in ten years **Bismarck and Fargo's** Price/Income Ratio will reach Billing's level today.

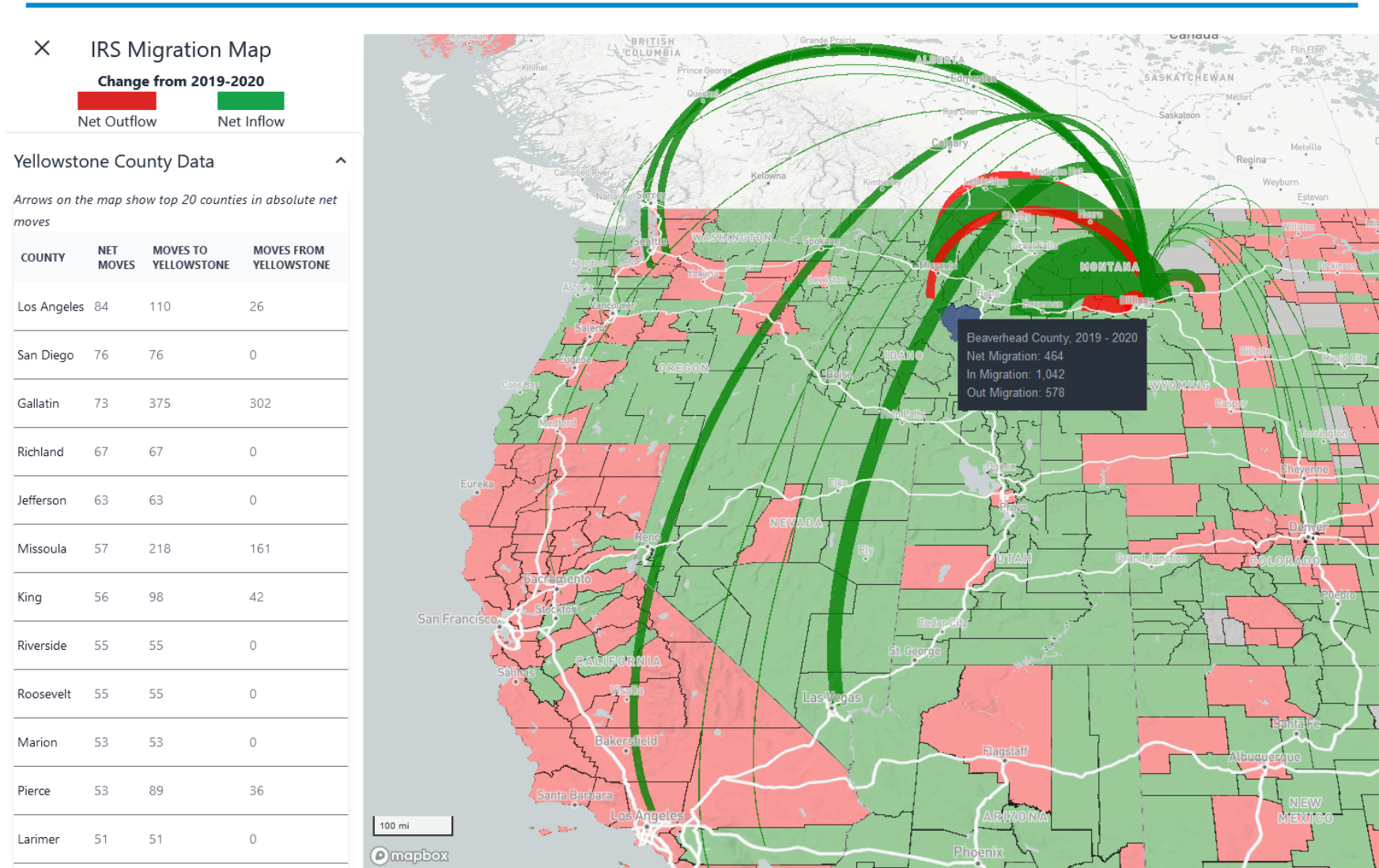
State Home Price to Income Ratio, ACS 1-year Data



Metro Home Price to Income Ratio, ACS 1-year Data



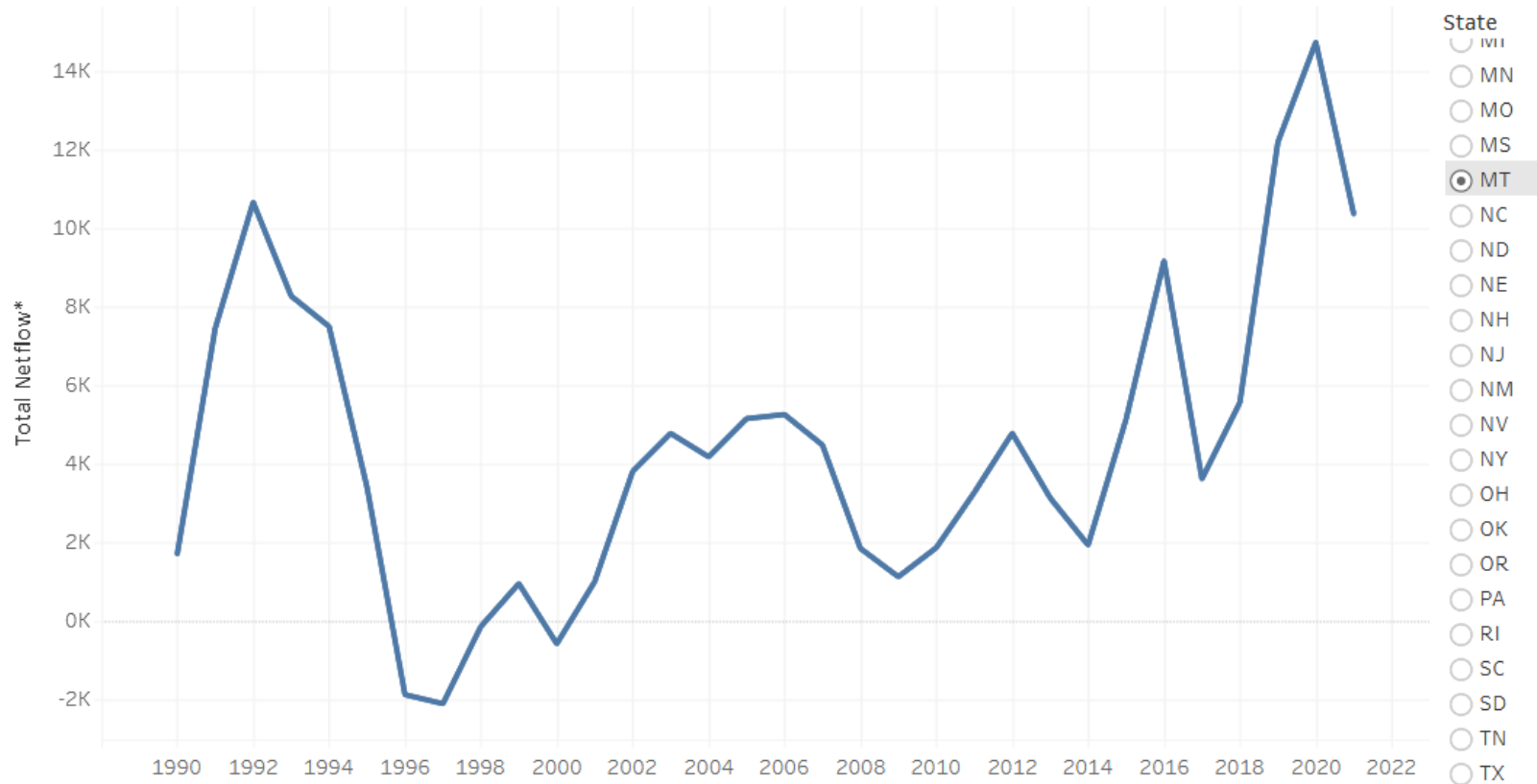
Montana (Illustrated Below by Billings-Yellowstone) Has Received Lots of In-Migration (Shown in Green) from States West & Southwest of It. Residents Migrating to Montana Have Both Higher Incomes & Took Advantage of Montana's Lower (but Still Rapidly Rising) Home Prices.



Montana has had net and growing in-migration gains since 2001. In 2021 (latest data available) net inflow totaled 10,000, or about 1% of its population.

State Total Netflow by Year

Tax Year (TY) 1990-2021 (subject TY compared to the year before)



Source: IRS and AEI Housing Center, www.AEI.org/housing.

North Dakota (Illustrated Below by Fargo-Cass) Has Not Yet Received Lots of In-Migration from States West & Southwest of It. In Fact, It Has Experienced Out Migration to Phoenix (Shown in Red). As Home Prices West & Southwest of It Continue to Rise, North Dakota Will at Some Point Enter the Home Price Blast Zone Created by Out Migration from Western & Southwestern States.

× IRS Migration Map

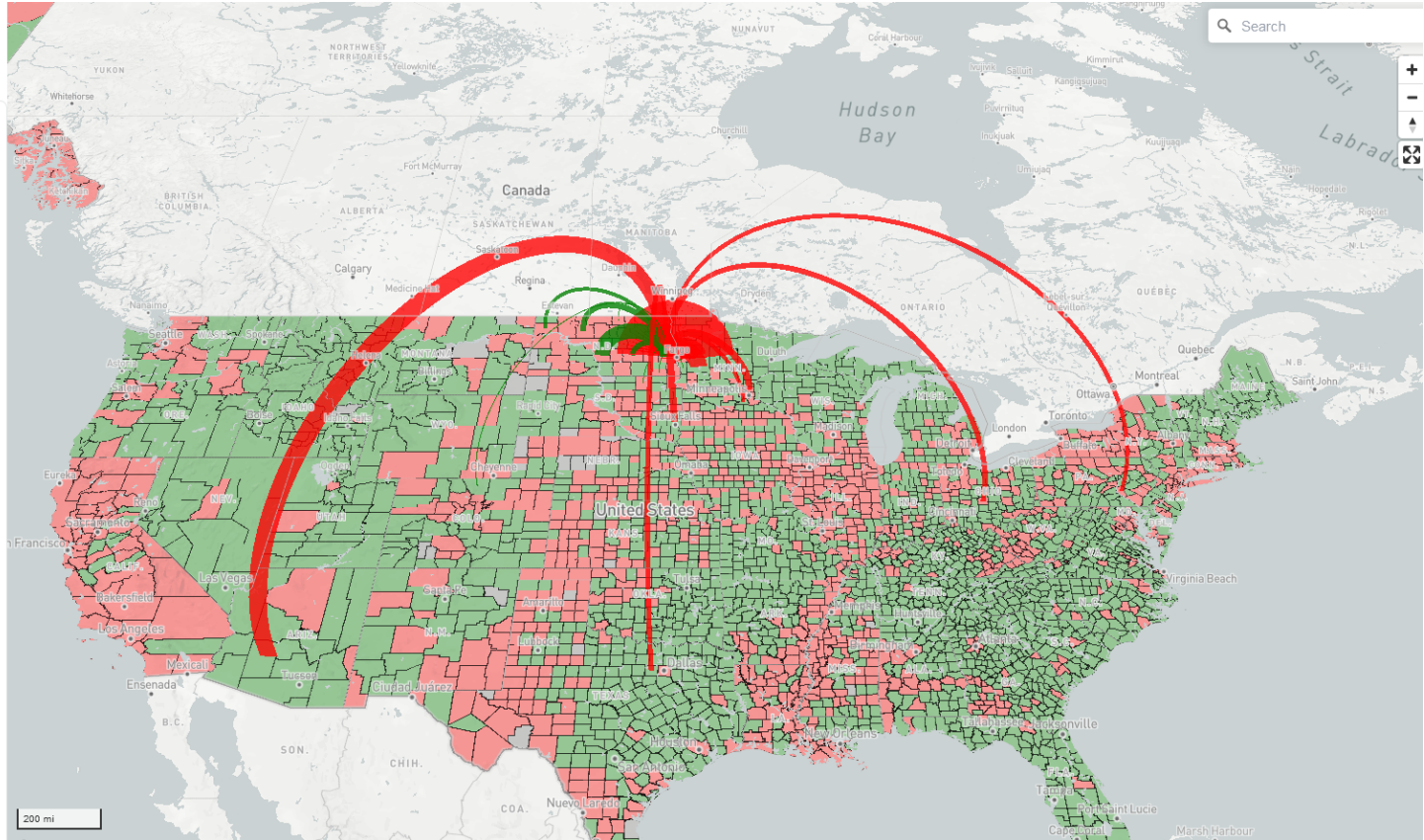
Change from 2019-2020

Net Outflow (Red) Net Inflow (Green)

Cass County Data

Arrows on the map show top 20 counties in absolute net moves

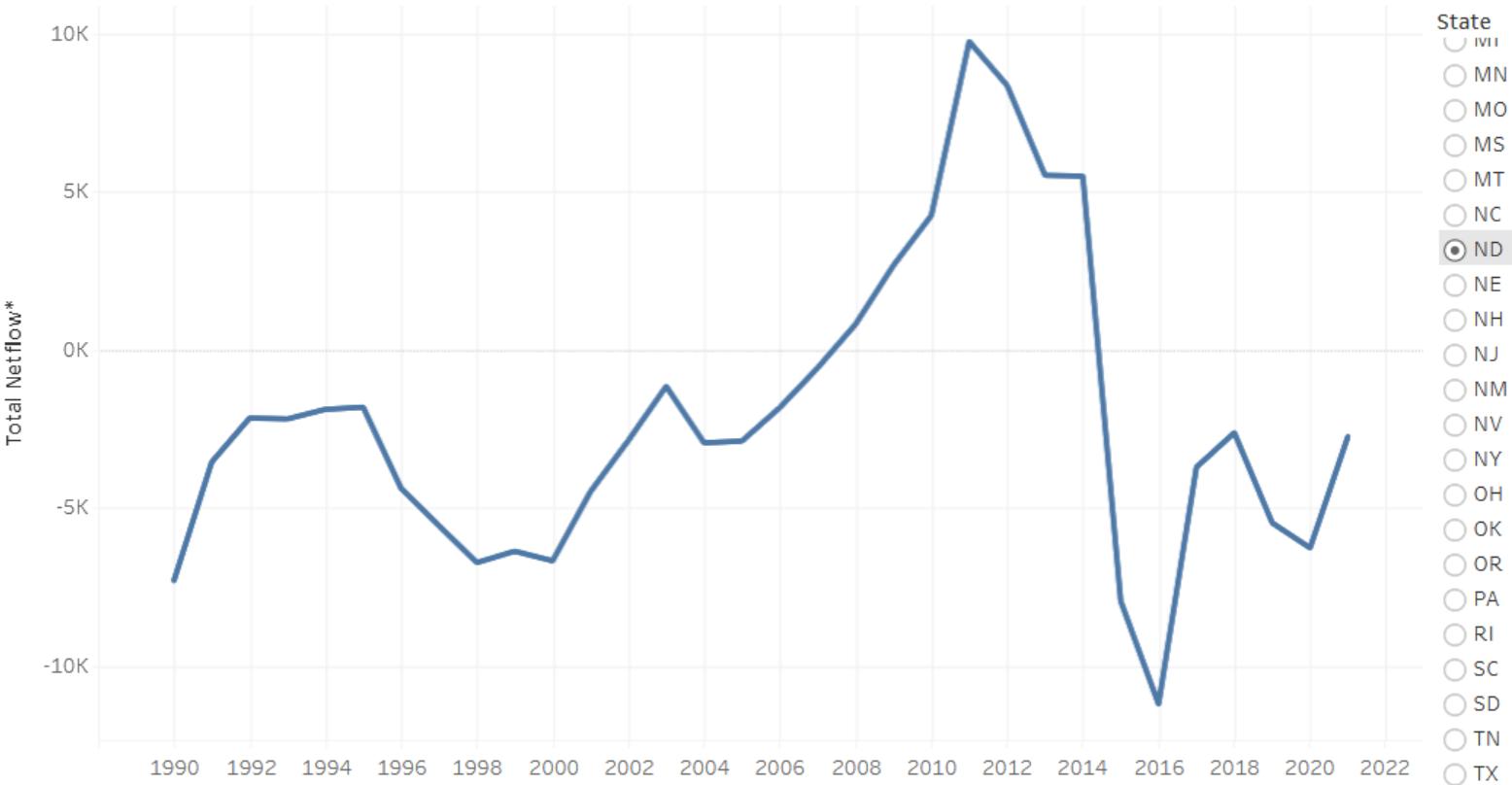
COUNTY	NET MOVES	MOVES TO CASS	MOVES FROM CASS
Grand Forks	283	510	227
Burleigh	130	368	238
Ward	102	187	85
Williams	71	118	47
Rolette	58	58	0
Sargent	48	48	0
Wilkin	47	47	0
Brown	43	43	0
Larimer	41	41	0
Stutsman	37	108	71
Ramsey	36	73	37



North Dakota has had net out-migration losses since 2016. In 2021 (latest data available) net outflow totaled 2800, or about 0.4% of its population.

State Total Netflow by Year

Tax Year (TY) 1990-2021 (subject TY compared to the year before)



Source: IRS and AEI Housing Center, www.AEI.org/housing.

Fargo, ND Metro: 4.7% of All Repeat Buyers Benefited from an Arbitrage Opportunity (median).

- **Fargo** is further from the California blast zone. This has helped keep home price appreciation more in line with income growth.
- **About 85% of move-up buyers are from ND (93% of these are moves within the Fargo metro).**
- **Arbitrage opportunity:**
 - Still high ($\geq 20\%$) for repeat buyers from Phoenix & Sioux Falls, SD,
 - Low ($< 20\%$) for repeat buyers from Denver, Fergus Falls, MN, & Minneapolis.

The housing arbitrage index

How much does a repeat buyer save by moving to someplace less expensive?

Top 15 Origins by Destination Metro (January 2018 through October 2023)

Destination Metro (CSA/CBSA*)

Fargo-Wahpeton, ND-MN

Origin Metro (CSA/CBSA*)	Price Ratio** (Median for New to Old Home)	Home Square Footage Ratio (Median for New to Old Home)	Price per Square Foot Ratio** (Median for New to Old Home)	Price** (Median Value for New Home)	Number of Traced Moves	% of Total Moves To CSA/CBSA*	Change in Lot Size Ratio	Year Built
All Non-Metro Areas	115.3%	92.8%	134.0%	\$341,685	294	3.6%	58.4%	2003
Bismarck, ND	111.7%	139.1%	81.0%	\$361,757	170	2.1%	93.4%	2004
Denver-Aurora, CO	68.3%	77.1%	84.7%	\$405,369	38	0.5%	152.6%	2011
Dickinson, ND	123.7%	160.3%	84.9%	\$330,002	23	0.3%	136.1%	2002
Fargo-Wahpeton, ND-MN	139.5%	138.6%	99.2%	\$404,022	6,579	79.4%	144.0%	2004
Fergus Falls, MN	121.0%	197.3%	82.8%	\$318,815	43	0.5%	40.6%	2007
Grand Forks, ND	138.7%	118.2%	108.0%	\$404,462	93	1.1%	102.3%	2008
Jamestown, ND	147.3%			\$354,570	36	0.4%	12.4%	2002
Las Vegas-Henderson, NV	90.6%	85.3%	129.4%	\$410,537	20	0.2%	205.4%	2004
Minneapolis-St. Paul, MN-WI	93.9%	112.2%	85.6%	\$365,235	229	2.8%	88.6%	2004
Minot, ND	123.7%	70.8%	176.4%	\$415,631	59	0.7%	108.4%	2006
Omaha-Council Bluffs-Fremont, NE-IA	104.3%	54.7%	194.7%	\$463,155	25	0.3%	107.8%	2015
Phoenix-Mesa, AZ	86.5%	116.2%	65.8%	\$417,815	76	0.9%	158.3%	2011
Rochester-Austin, MN	131.9%	167.1%	100.0%	\$354,562	23	0.3%	89.3%	2000
Sioux Falls, SD	112.0%	257.4%	55.8%	\$435,446	25	0.3%	141.6%	2018

Billings. MT Metro: 13.7% of All Repeat Buyers Benefited from an Arbitrage Opportunity (median).

- **Billings is much closer to the California blast zone. This has helped fuel home price appreciation in excess of income growth.**
- **Only about 61% of move-up buyers are from MT (92% of these are moves within the Billings metro).**
- **Arbitrage opportunity:**
 - Still high ($\geq 20\%$) for repeat buyers from Los Angeles, Phoenix, Portland, San Jose/San Francisco, Salt Lake City, & Seattle,
 - Low ($< 20\%$) for repeat buyers from Boise, Denver, & Riverside-SB.

The housing arbitrage index

How much does a repeat buyer save by moving to someplace less expensive?

Top 15 Origins by Destination Metro (January 2018 through October 2023)

Destination Metro (CSA/CBSA*)

Billings, MT

Origin Metro (CSA/CBSA*)	Price Ratio** (Median for New to Old Home)	Home Square Footage Ratio (Median for New to Old Home)	Price per Square Foot Ratio** (Median for New to Old Home)	Price** (Median Value for New Home)	Number of Traced Moves	% of Total Moves To CSA/CBSA*	Change in Lot Size Ratio	Year Built
All Non-Metro Areas	126.5%	144.2%	78.4%	\$470,091	47	1.8%	24.5%	2003
Billings, MT	129.3%	127.1%	100.6%	\$481,836	1,460	55.9%	137.2%	2003
Boise City-Mountain Home-Ontario, ID-OR	95.1%	94.9%	95.4%	\$521,820	21	0.8%	105.5%	2007
Bozeman, MT	67.1%	150.3%	45.7%	\$486,816	59	2.3%	102.3%	2006
Denver-Aurora, CO	85.8%	100.6%	89.1%	\$533,564	67	2.6%	185.3%	2005
Great Falls, MT	109.9%	161.2%	68.8%	\$438,238	47	1.8%	83.5%	2006
Helena, MT	95.8%	193.9%	60.3%	\$477,772	26	1.0%	29.1%	2007
Houston-The Woodlands, TX	129.6%	92.8%	126.3%	\$511,253	20	0.8%	162.3%	1994
Los Angeles, CA	61.0%	150.5%	39.0%	\$566,410	31	1.2%	184.2%	2003
Phoenix-Mesa, AZ	100.9%	152.2%	67.7%	\$451,297	42	1.6%	165.6%	1999
Portland-Vancouver-Salem, OR-WA	92.1%	131.8%	79.8%	\$462,541	41	1.6%	146.8%	2003
Riverside_SB, CA	85.5%	108.8%	82.7%	\$508,471	24	0.9%	217.1%	2006
Salt Lake City-Provo-Orem, UT	87.0%	108.2%	77.2%	\$485,782	21	0.8%	251.8%	1994
San Jose-San Francisco-Oakland, CA	55.5%	158.1%	31.7%	\$555,236	26	1.0%	242.5%	1998
Seattle-Tacoma, WA	75.2%	132.9%	62.9%	\$451,096	84	3.2%	100.3%	1992

Since 2004, **North Dakota** had the highest job growth among the 6 Minneapolis Fed district states

- **ND's median wage is \$52,000.**
- **80% of the added jobs were above the median (blue highlight).**
- **Above average wage growth was present in the fast growing industries of health, mining, oil, and gas, transportation and warehousing, construction, and professional and technical services (green highlight).**
- **Percentage growth in excess of the state's rate of 29% was present in the yellow highlighted industries.**

% Change in Jobs (2004-2021): by State

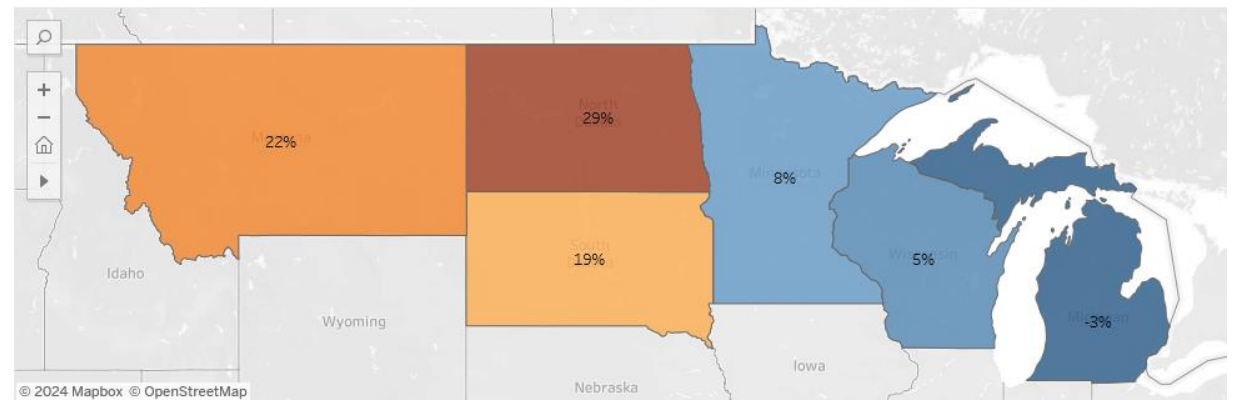


Table of jobs and estimated wages by industry

State:

Industry	Jobs in 2004	Jobs in 2021	Change in jobs	% Change in jobs	Estimated wage in 2021
Health Care	48K	70K	22K	46%	64K
Mining, Oil and Gas	4K	13K	10K	279%	99K
Transportation and Warehousing	8K	16K	8K	99%	57K
Construction	16K	23K	8K	50%	61K
Professional and Technical Services	10K	17K	7K	66%	61K
Educational Services	32K	39K	6K	20%	25K
Public Administration	15K	20K	5K	31%	69K
Wholesale	18K	23K	5K	25%	82K
Accommodation and Food Services	26K	30K	4K	15%	26K
Finance and Insurance	14K	18K	4K	26%	61K
Retail	40K	44K	3K	8%	35K
Arts and Entertainment	6K	9K	3K	43%	14K
Agriculture	2K	4K	2K	80%	12K
Real Estate	4K	5K	2K	47%	16K
Management	3K	4K	1K	39%	118K
Manufacturing	24K	25K	1K	4%	72K
Administrative and Support	11K	12K	1K	8%	38K
Utilities	3K	3K	0K	-1%	154K
Other Services	11K	11K	-1K	-5%	33K
Information	8K	6K	-2K	-21%	90K

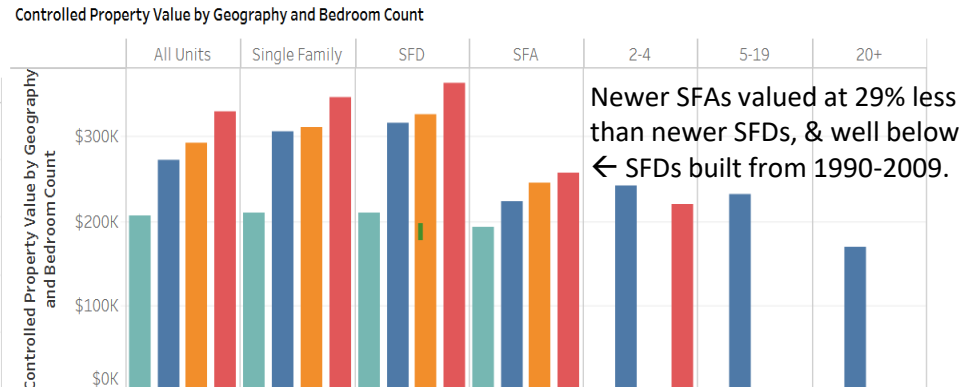
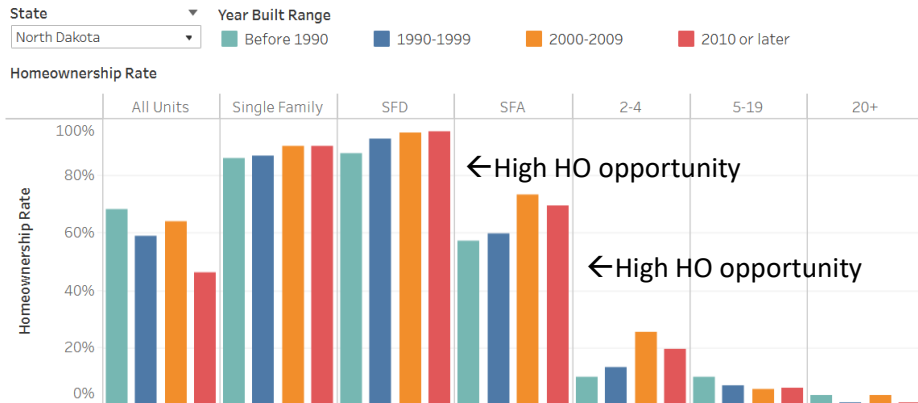
Light-touch density and Livable Urban Villages could to add over 1,900 homes per year in North Dakota, a 60% increase over the recent average residential permit level of 3,000/year.*

Light-touch density (LTD) and Livable Urban Villages (LUV).

- Accessory Dwelling Units (ADUs): **745 homes per year**
 - No sprawl or infrastructure costs.
 - Legalizing ADUs and implement pre-approved ADU design standards.
 - Opportunity for homeownership is nil, unless an external ADU is allowed to be sold separately from the main home. If it is, opportunity is high.
- Greenfield LTD: **400 homes per year**
 - Reduce sprawl, infrastructure costs, and energy use by allowing smaller SFD lots (6-9 homes/acre) and building more SFA homes (14-20 home/acre).
 - Allow land owner/developer to select lot size (with a minimum of perhaps 1,500 sq. ft./parcel) and typology type (Single-family Detached-SFD or Single-family Attached/townhomes-SFA).
 - Policies to encourage the construction of more SFA building (currently 5% of all newly built single-family in Cass County).
 - SFA require about 1/3 the land of SFD and average about 1,600 sq. ft. of living space, compared to 1,900 sq. ft. for SFD.
 - As a result, the median price is about 40% lower than the median priced SFD.
 - Opportunity for homeownership is high for SFD (95%) and SFA (69%).
- LTD infill: **160 homes per year**
 - Reduce sprawl, infrastructure costs, and energy use by allowing 2-8 homes per existing SFD-home parcel.
 - Opportunity for homeownership is high for SFD (95%) and SFA (69%), and low for 2-8 plexes (20%).
- Livable Urban Village-LUV: **650 homes per year**
 - Reduce sprawl, infrastructure costs, and energy use by allowing 20-75 residential units/acre in core areas, currently zoned commercial, industrial, and mixed use zoning and up to 6 or 8 homes per parcel in areas adjacent to core areas.
 - Opportunity for homeownership is high for SFA (69%), and low for 2-8 plexes (20%) and 20+ multifamily (1%).
- See next slide for homeownership data by housing typology.

Light-touch density & Livable Urban Villages could help maintain North Dakota's 65.1% HO rate

- **ND** has the lowest homeowner (HO) rate of the Minn. Fed's 6 states. (MT-68.8, SD-69.6, MN-72.1, WI-68.1, & MI-73.2)
- **ND's** post-2010 construction had an HO rate of 46%, well below prior periods (left bar chart), and well below the rates for other 5 Minn. Fed states (not shown).
 - This was largely due to a mix shift related to the fracking boom from 2011-2015.
 - A surge in permits (next slide) tilted permitting away from single-family (42% SF for 2011-2015, down from 61% for 2007-2010 and 63% for 2015-2021).
 - However, the homeowner rate for single-family detached (SFD) homes was 95% for both the 2000-2009 and 2010-2021 construction cohorts (left bar chart).
 - This would indicate that new construction SFD continues to be a source of supply for homeowners, especially move-up buyers.
 - While **ND's** single-family stock has a median value in 2022 of \$274,000 (not shown), newly built SFDs are valued 32% higher at \$363,000 (right bar chart).*
 - Newly built ND SFAs have a value of \$274,000, comparing favorably to the \$282,000 value noted above.
- To maintain **ND's** HO rate, naturally affordable LTD offering high HO opportunity must be legalized (both charts).
 - The only choices are: small lot SFD, SFA, and individually saleable ADUs.



* <https://www.attomdata.com/data/us-real-estate/nd/>

Source: 5-year American Community Survey, <https://www.propertyshark.com/info/us-homeownership-rates-by-state-and-city/>, [AEI Housing Center's Housing and Economic Analysis Toolkit \(HEAT\) HO Rent Value](#), AEI Housing Center

Fargo metro case study on how duplexes/twin homes could help maintain ND's 65.1% HO rate

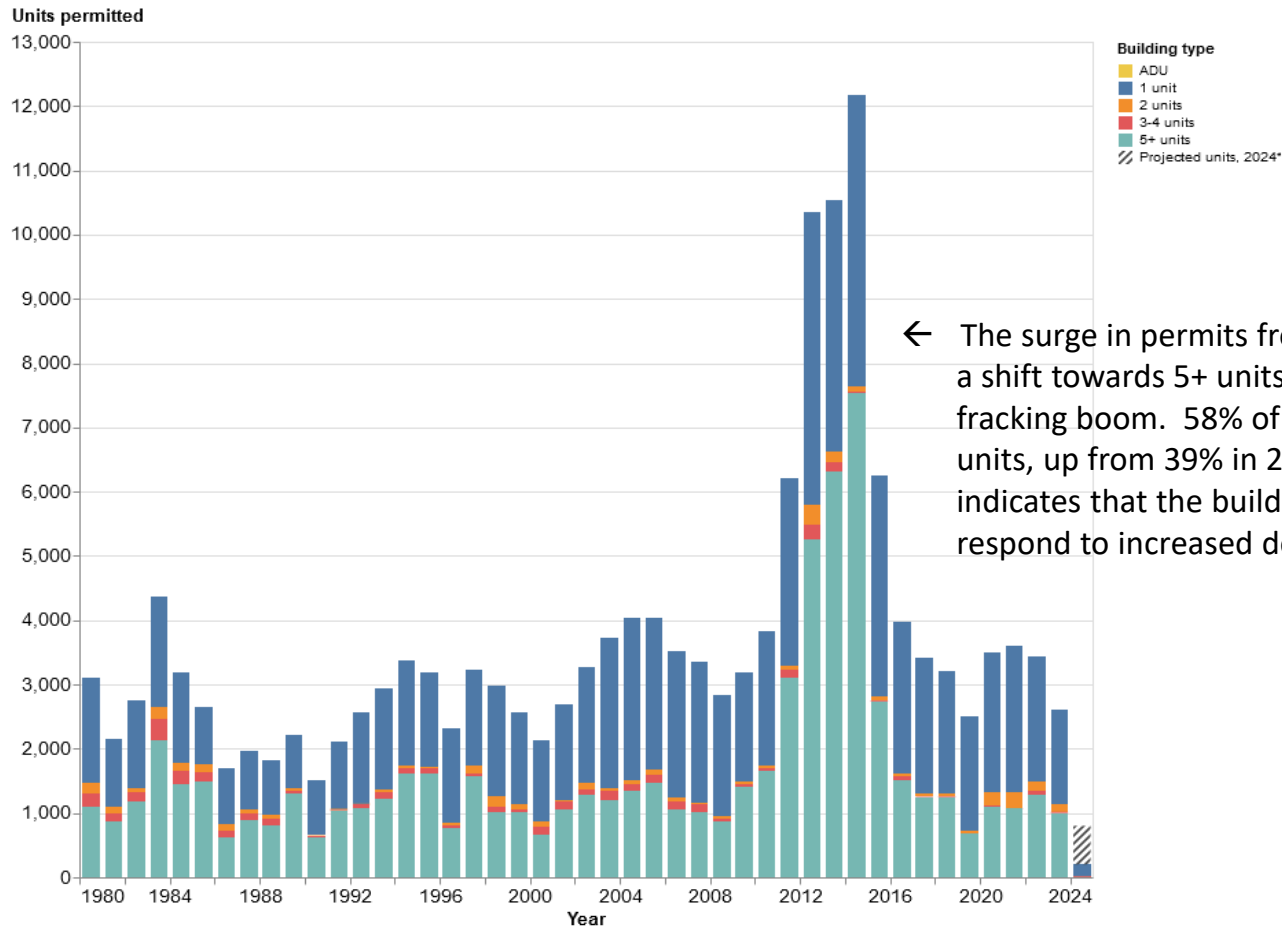
- The satellite view below is of a portion of a neighborhood in Dilworth, MN, which is about 5 miles east of Fargo.
 - It shows two rows of homes across from each other in the same neighborhood:*
 - The upper row consists of 7 single-family detached (SFD) homes.
 - The highlighted home has 4 bdrms./3 baths, 2324 sq. ft. of living area & is valued at \$336,400.
 - The lower row consists of a total of 12 duplex or twin homes on about the same amount of land.
 - The highlighted home has 2 bdrms./2 baths, 1440 sq. ft. of living area & is valued at \$249,400.
 - The twin home sells for 26% less than the SFD home.
 - Fargo metro has a median household income of \$64,432, and as noted earlier, its median home price to income (price to income) ratio is 3.9.
 - The median income household can buy one of the twin homes at a price to income ratio of 3.9.
 - A household income of \$86,000 would be needed to yield a price to income ratio of 3.9.
 - The conclusion is clear, to maintain ND's HO rate, naturally affordable LTD, such as these twin homes, must be legalized.
 - This approach requires no subsidies or taxpayer intervention.



* www.zillow.com, AEI Housing Center

Light-touch density/Livable Urban Villages could reduce sprawl by adding over 1,900 homes per year in North Dakota, a 60% increase over the recent average residential permit level of 3,000/year.*

North Dakota Units

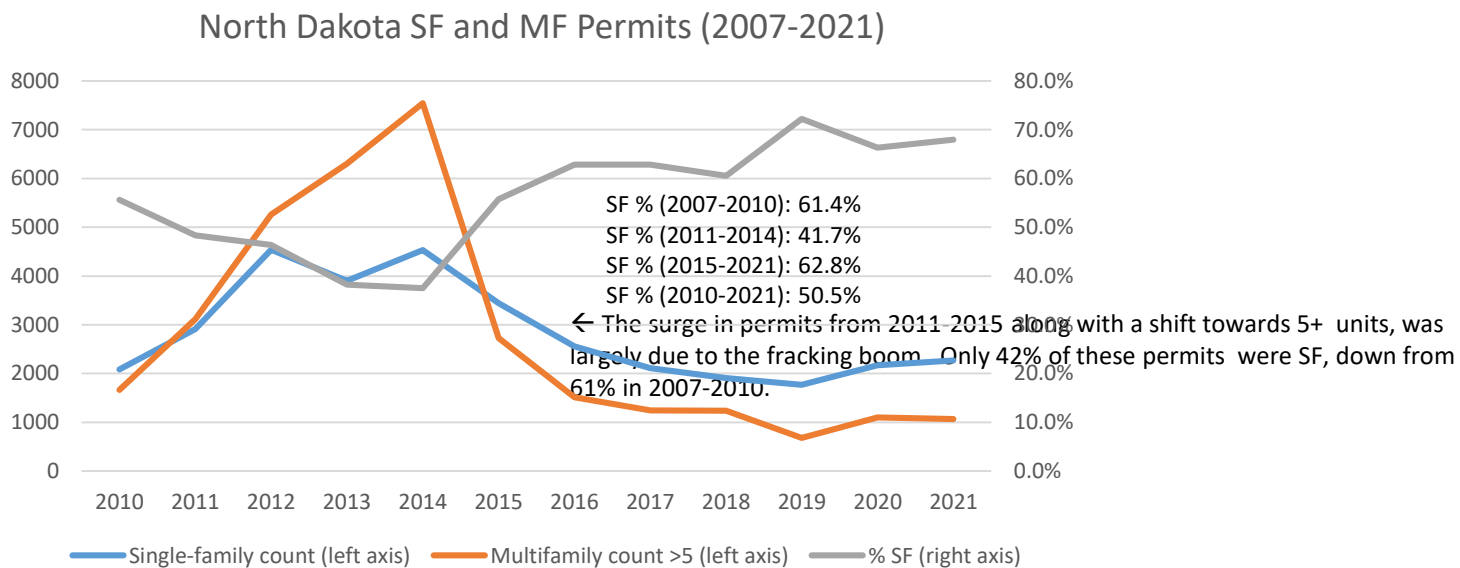


← The surge in permits from 2011-2015 along with a shift towards 5+ units, was largely due to the fracking boom. 58% of these permits were 5+ units, up from 39% in 2007-2010. This surge also indicates that the building trades were able to respond to increased demand.

Total Per capita [download data](#)

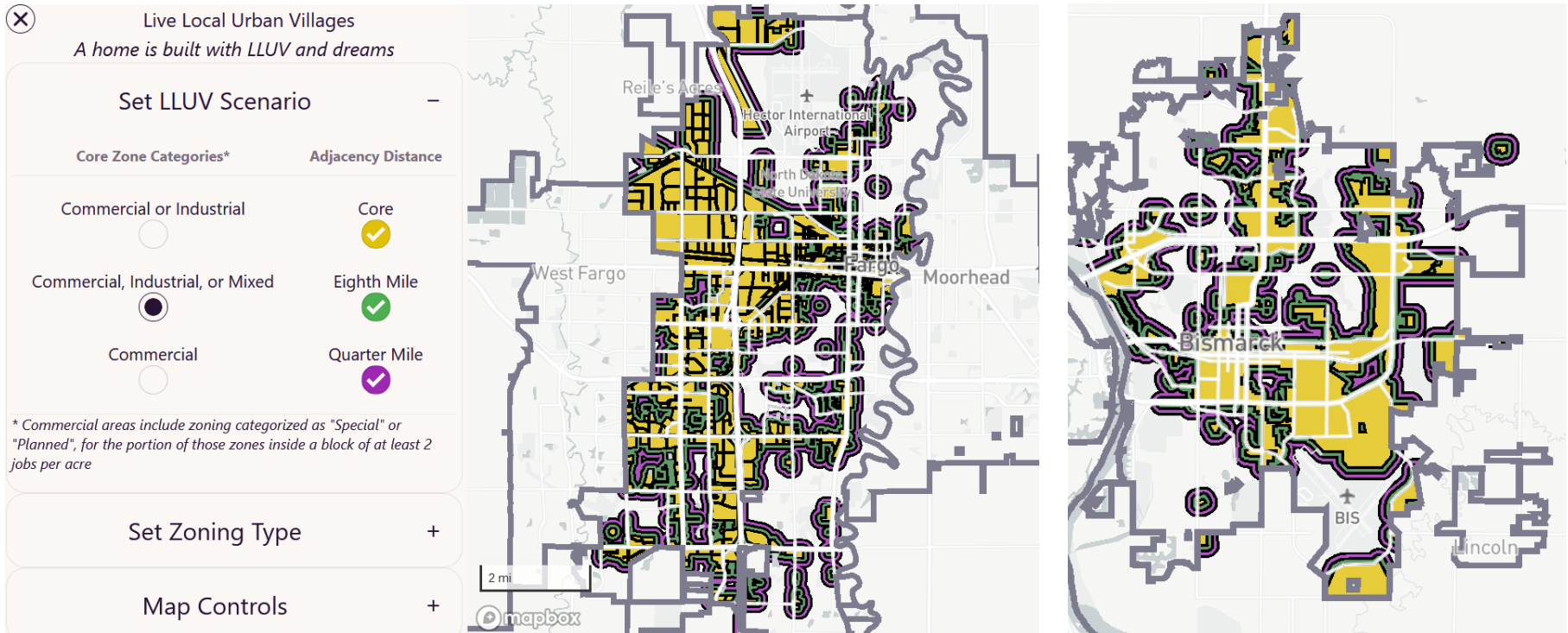
*2024 includes data from January through March.

Light-touch density/Livable Urban Villages could reduce sprawl by adding over 1,900 homes per year in North Dakota, a 60% increase over the recent average residential permit level of 3,000/year.*



Livable Urban Villages (LUV) reduce sprawl, infrastructure costs, and energy use

- **Core areas:** allow residential in commercial, industrial and mixed zones (gold)
- **Adjacent areas:** allow light-touch density in surrounding 1/8 mile (green) or ¼ mile (purple) areas. While there is minimal opportunity for infill tear downs due to low land shares, there are opportunities for ADUs/second units with no teardown.
- **LUV zoning maps:** # of homes added on **annually**, with % increase based on average residential permits (2020-23):
 - **Fargo City** has an area of 51 sq. mi., with a density of 2,500/sq. mi. (left map):
 - Core: 120-240 homes, 10-20% increase in residential permits (average: 2020-23)
 - Adjacent: 64 ADUs (1/8 mile) & 150 ADUs (¼ mile), 6% or 14% increase in residential permits respectively
 - **Bismarck** has an area of 35 sq. mi., with a density of 2,100/sq. mi. (right map):
 - Core: 500 homes, 100% increase in residential permits (average: 2020-23)
 - Adjacent: 40 ADUs (1/8 mile) & 98 ADUs (¼ mile), 10% or 30% increase in residential permits respectively
 - **Grand Forks** will be available soon.

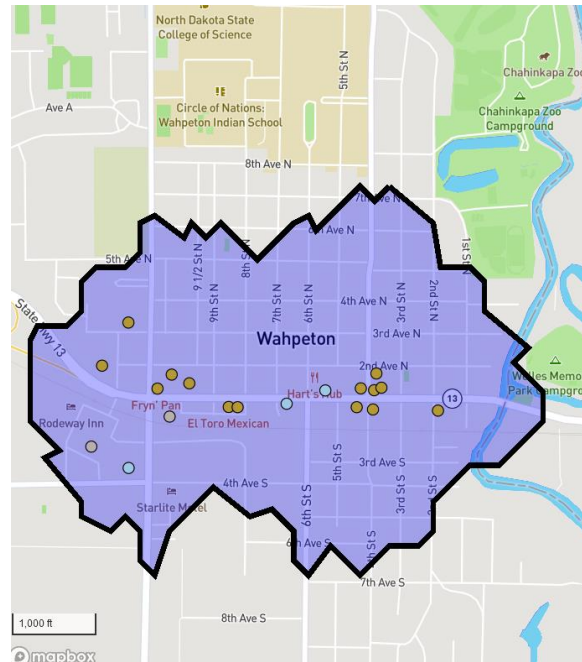
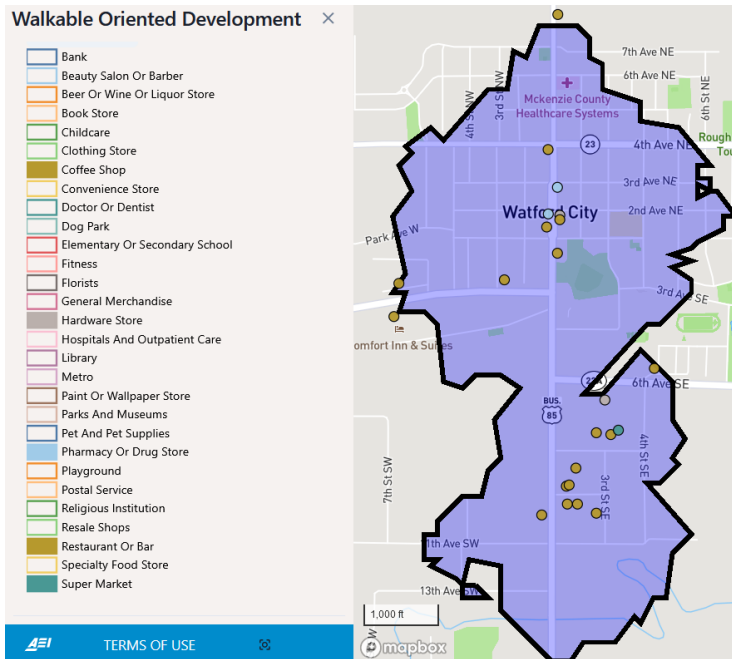


https://heat.aehousingcenter.org/toolkit/luv_map

Source: Zoneomics and AEI Housing Center, www.AEI.org/housing.

Walkable Oriented Development (WOD): a County Seat Strategy Would Reduce Sprawl, Infrastructure Costs, and Energy Use

- Seventeen of North Dakota's 53 county seats have a Walkable Oriented Development (WOD) area.*
- These include:
 - Valley City (Barnes County)
 - **Watford City (McKenzie County)**
 - Dickinson (Stark County)
 - Devils Lake (Ramsey County)
 - Grand Forks (Grand Forks County)
 - Rolla (Rolette County)
 - Stanley (Mountrail County)
 - Minot (Ward County)
 - **Wahpeton (Richland County)**
 - Mandan (Morton County)
 - Jamestown (Stutsman County)
 - Williston (Williams County)



WOD areas need to follow the Housing Abundance Success Sequence:

- By-right zoning: up to 6-8 homes per parcel.
- Keep it Short & Simple, including any tax abatement provided.

<https://heat.aeihousingcenter.org/toolkit/wod>

* Nationally WODs contain about 20% of residential units, 85% of restaurants, bars, cafes, pharmacies, and supermarkets, 70% of hardware stores, and 60% of office space. On the map, WODs are denoted with thick black outlines and a blue tint. Each parcel within a WOD is within a 10-minute walk of a cluster of 6 or more points of interest. A cluster consists of at least 6 restaurants/bars, coffee shops, supermarkets/grocery stores, hardware stores, and/or pharmacies/drugstores. Ten minute walking isochrones (catchment areas of equal time) are calculated for each POI within a cluster. WODs would bring housing closer to service jobs thereby reducing transportation and housing costs, while freeing up time for other activities such as recreation and child care.

Yes to Expanded Supply (YES): The AEI Housing Center's many case studies on zoning practices and land use reform have led to a simple formula for achieving housing abundance success

Housing Abundance Success Sequence:

- Enable by-right zoning
 - Allow greater density in lots of areas particularly around walkable and amenity-rich areas,
 - Complement higher density mid/high-rise residential uses in core areas of Live Local Urban Villages with moderately higher density Light-touch Density multiplexes or townhomes in adjacent areas, thus providing an ample supply of naturally affordable homes with wealth-building homeownership opportunities.
- Follow the KISS (Keep It Short and Simple) principle instead of micromanaging the process
- The result will be to unleash a swarm of housing and ingenuity by a host of developers, builders, contractors, owners, and suppliers.
- If economic conditions allow, a swarm will develop in a year or so, not years, and continue for decades.
- In each case, sprawl, infrastructure costs, and energy use were reduced.

Legalize and they will build!

Case studies:

[Anaheim](#)

[California](#)

[Charlotte](#)

[Denver](#)

[Houston](#)

[Institutional landlords](#)

[Palisades Park](#)

[Philadelphia](#)

[Los Angeles](#)

[Los Angeles, Manhattan Beach, and Santa Monica Metro](#)

[Menlo Park, Palo Alto, and Los Altos \(San Jose metro\) Case Study](#)

[Raleigh](#)

[San Diego ADU construction](#)

[Sarasota](#)

[Seattle](#)

[Tokyo](#)

[Short-term rentals](#)

[Single-Room Occupancy Units \(SROs\)](#)

[Traditional Housing Subsidy Programs and Inclusionary Zoning](#)

[Vienna, Austria](#)

Housing Abundance Success Sequence:

1. By-right zoning
2. Keep it short and simple (KISS) land use rules
3. Unleash housing

[Link to AEI Housing Center Model Light-Touch Density Bill](#)

Resolved: Abundant Housing and Less Sprawl for our Children & Grandchildren

Make These

Avoid These

By-right Light-Touch Density (LTD) for infill development, preapproved plans	Exclusionary single-family zoning (designed and promoted by the federal government in 1922)
By-right LTD & tax abatement for derelict vacant lot infill	Making McMansions the highest and best legal use
Plentiful zoned land at a lower cost per home	Making land is scarce and expensive
By-right Accessory Dwelling Units up to 1500 - 2000 sq. ft.	Low maximum floor-area ratio
Small lot single-family detached greenfield LTD	High minimum lot size
Small lot single-family attached greenfield LTD	Income limits, affordable housing fees, & mandates
By-right lot splitting & home splitting (coliving)	Mandated inclusionary zoning
By-right residential zoning at higher density levels in Live Local Urban Villages (LLUV)	Rental bans or rent control
Zone sufficient land for green field LTD & LLUV	Owner-occupancy requirements
Light-touch permitting & processing, permit approval shot clocks, expand residential building code from 2 to 4/6 units	Impact fees; condominium liability laws/statutes of repose that set condo builder/developers for onerous litigation
Keep It Short and Simple (KISS) -- examples: <ul style="list-style-type: none"> • Abolish or reduce minimum lot & unit size • Reduce set-back requirements 	Outsized parking or other requirements that increase construction costs or de facto prevent building LTD entirely (such as a low floor area ratio)
By-right zoning unleashes swarms of activity by property owners and small businesses	Anything not required for single-family homes
Say yes to abundant housing	Saying no to abundant and affordable housing
Good Neighbors support LTD	High displacement pressure & rates of homeless

Zoning: a New Take on State vs. Municipal Powers

Rather than framing zoning as a power struggle between the ND legislature and municipalities, an alternative would be to frame as the citizens and their inalienable right to acquire, possess and protect property (Article 1, Section 1) on one side and the power of the government (both the legislature and municipalities) to limit that right on the other side.

Framed in this manner, fundamental questions arise, including do the ND legislature and municipalities have the power to:

- Prohibit its citizens from building say an ADU or 2, 3 or 4 homes on a property of say 6000 square feet.
- Impose numerous non-health and safety related constraints incorporated into modern land use controls.

Consistent with Article 1, Section 16, one's private property rights do not extend beyond one's own property line.

Consistent with Article 1, Section 24, the burden shifts from a citizen having to request permission to build an ADU to the government demonstrating it is not transgressing against the inalienable right to acquire and possess property.

Implementation: the ND legislature could specify prohibited government transgressions against inalienable property rights, prohibitions that would be applicable to both the ND legislature and all municipalities.

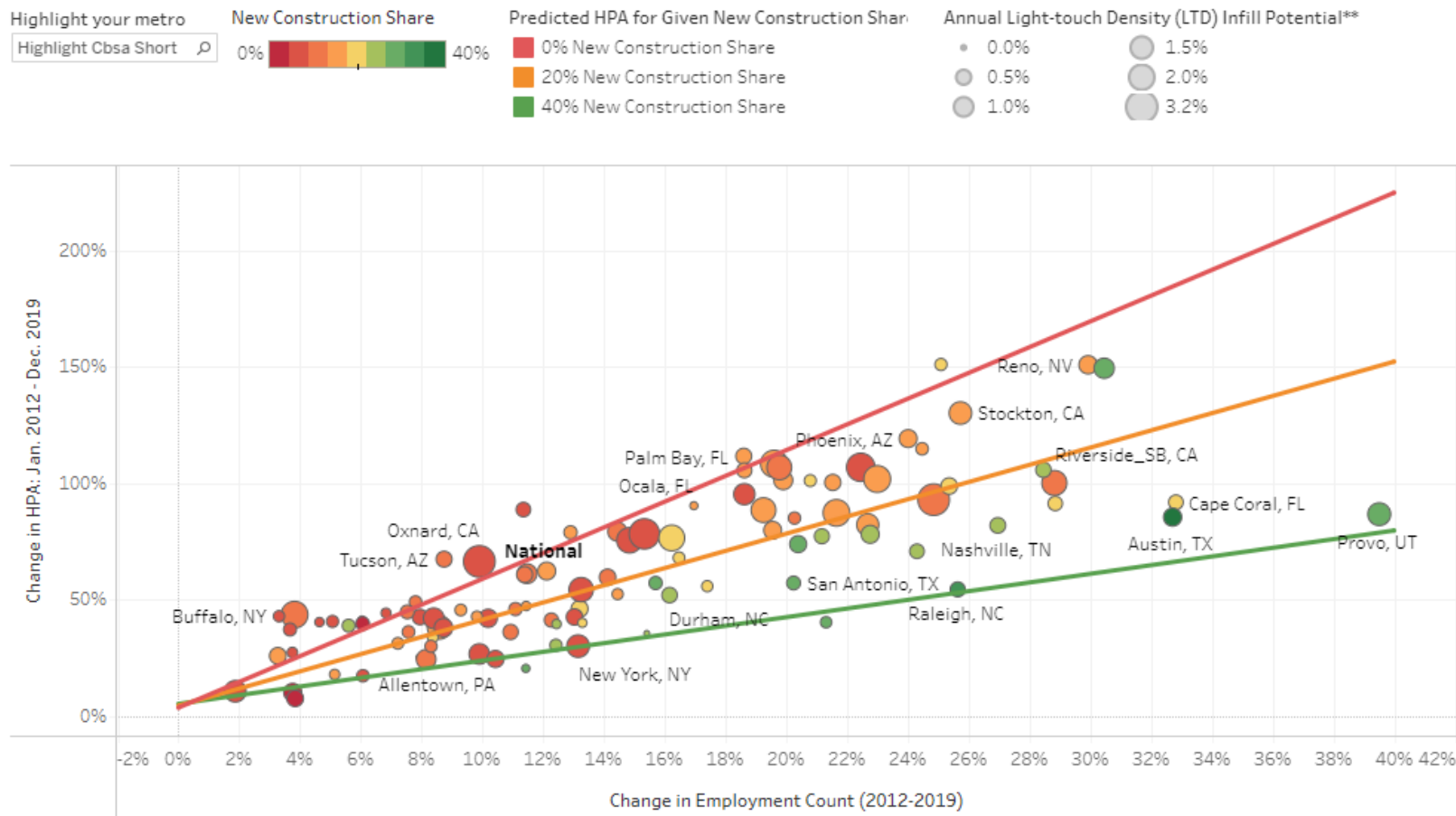
North Dakota Constitution: ARTICLE I: DECLARATION OF RIGHTS*

- **Section 1.** All individuals are by nature equally free and independent and have certain inalienable rights, among which are those of enjoying and defending life and liberty; acquiring, possessing and protecting property and reputation; pursuing and obtaining safety and happiness; and to keep and bear arms for the defense of their person, family, property, and the state, and for lawful hunting, recreational, and other lawful purposes, which shall not be infringed.
- **Section 16.** Private property shall not be taken for the use of, or ownership by, any private individual or entity, unless that property is necessary for conducting a common carrier or utility business.
- **Section 24.** The provisions of this constitution are mandatory and prohibitory unless, by express words, they are declared to be otherwise.

* <https://ndlegis.gov/constit/a01.pdf>

Adding housing supply helps tamp down home price appreciation

Metro-level Relationship between Home Price Appreciation (HPA), Employment Change, and New Construction (NC) % of 1-4 Home Sales (2012-2019), Top 100 Metros



Source: BLS, Freddie, and AEI Housing Center, www.AEI.org/housing.

LTD is an ideal tool to increase the supply of naturally affordable & inclusionary housing



Light-touch Density (LTD) represents the low-hanging fruit in zoning reform. It is also naturally affordable.

LTD utilizes land in a more efficient way by moderately increasing the density of housing. This reduces sprawl, infrastructure cost, and energy use. Instead of allowing only a single-family detached (SFD) home on a parcel, LTD allows for:

- 2-8-plexes,
- a series of townhouses, or
- an accessory dwelling unit (ADU).

LTD also allows for single-family detached homes on smaller lots.

All these LTD options would moderately increase the as-built density of the land, thereby **enabling owners and small-scale builders to construct smaller**, less expensive units that are more naturally affordable and inclusionary without requiring subsidies.

The LTD type most suitable to each locality depends on the land and construction costs.

1. For high-cost areas: Tearing down an existing unit and replacing it with townhomes or a 2- to 8-plex.
2. For medium-cost areas: Adding additional unit(s) (ADU or second home) to an existing parcel.
3. Everywhere: Increasing the as-built density of new greenfield developments.

These LTD housing types are compatible with single-family detached homes. Since they require less land and are smaller in size, they are more affordable to lower- and middle-income households.

Nationally, LTD has the potential to add up to 900,000 net additional homes per year for the next 30-40 years.*

* These estimates are based on case studies from Seattle, Charlotte, Houston, Palisades Park, and Tokyo. For a further discussion of Light-touch Density case studies, see pg. 7-10 of the [AEI Housing Center booklet](#) on increasing housing supply.

Source: AEI Housing Center, www.AEI.org/housing.

Montana Miracle: Measures the Legislature Could Consider & the Governor Could Sign



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Montana Miracle: Measures the Legislature Could Consider & the Governor Could Sign (cont'd)



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Montana Miracle: Regulatory Changes and Best Practices that Could Be Adopted



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Montana Miracle: Regulatory Changes and Best Practices that Could Be Adopted (cont'd)

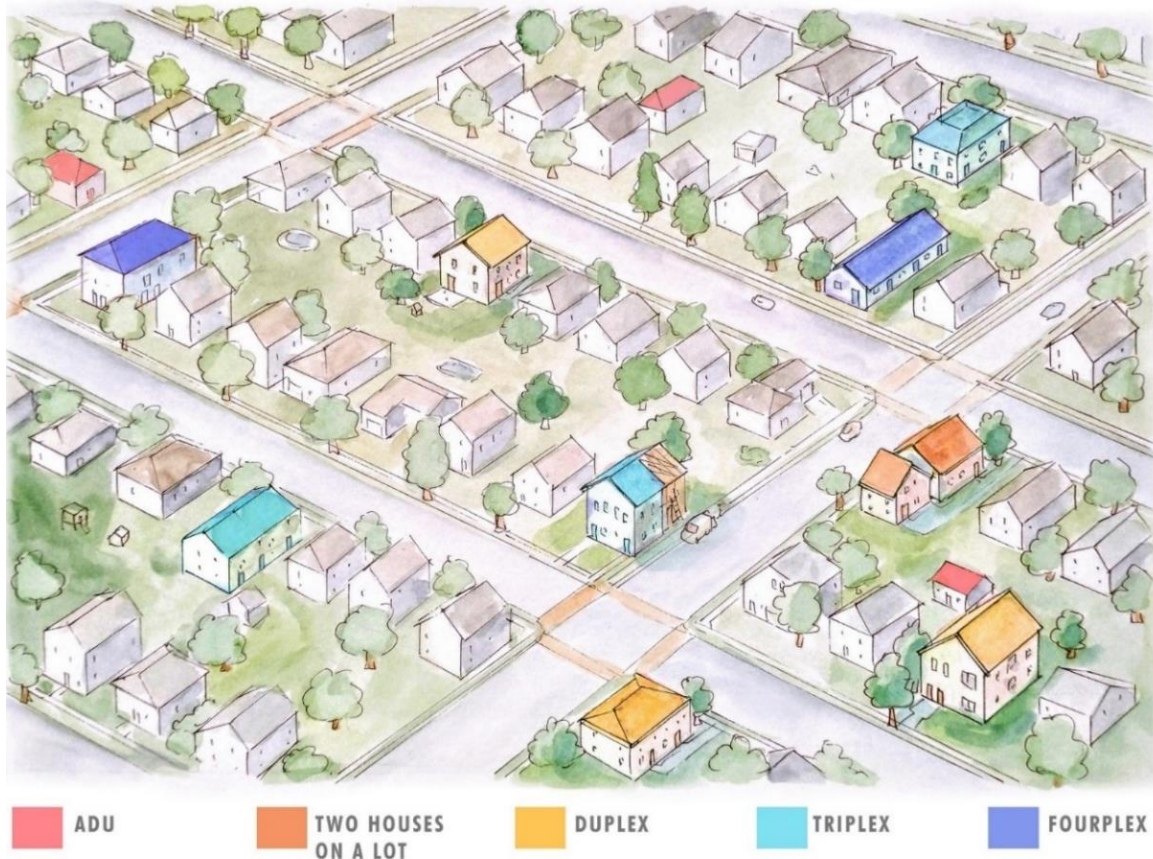


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LTD promises gradual change

Based on multiple case studies, we estimate that around 2% of the single-family detached housing stock will be converted to a higher and better use through LTD per year.*



* The lower figures assumes a density of 2 units per lot and the higher figure assumes a density of up to 8 units per lot nationwide. These estimates are based on case studies are from [Seattle](#), [Charlotte](#), [Houston](#), [Palisades Park](#), and [Tokyo](#).
Source: AEI Housing Center, www.AEI.org/housing.