HOUSING & DISTRESSED MARKET UPDATE

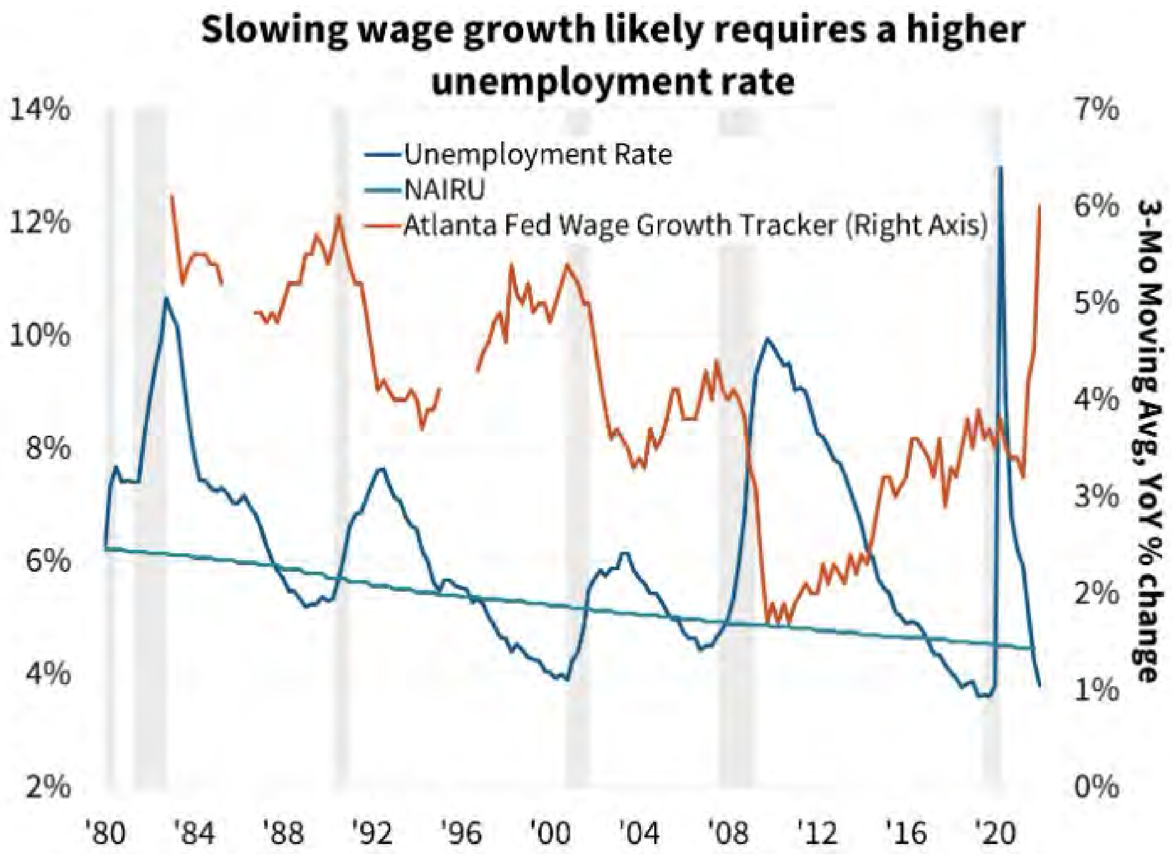
May 3, 2022

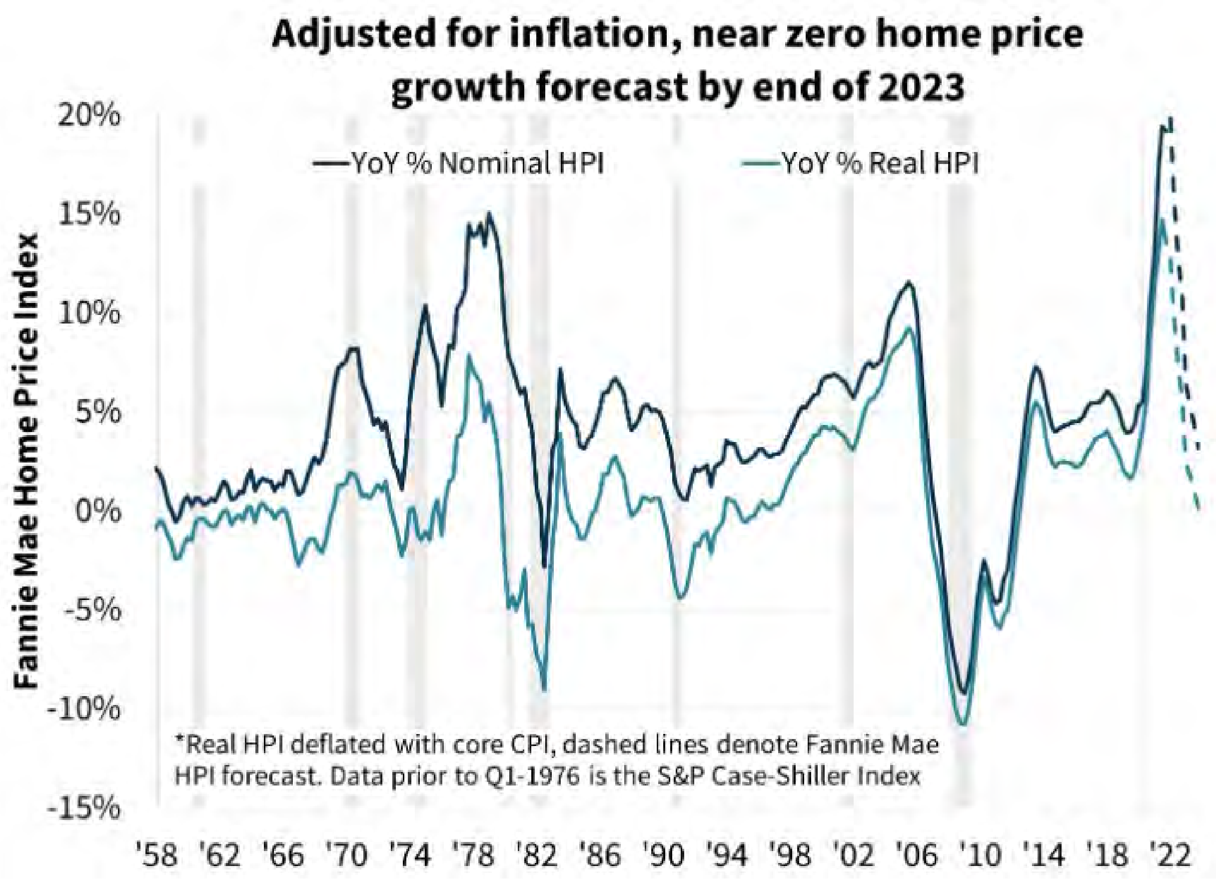
AUCTION.COM
MARKET RESEARCH & ANALYSIS

1. Is the increased risk of recession a concern for housing?
2. Are home prices overheated and due for a correction (or crash)?
3. When will housing demand capitulate to affordability constraints?
4. Are the seeds of oversupply being planted?
5. How will demographic trends help or hurt housing?

Is the increased risk of recession a concern for housing?

- Based on latest Fannie Mae forecast predicting a recession in 2023
  - Likely lead to fewer home sales, slowing HPA (negative in some markets) and higher delinquencies due to higher unemployment
  - GDP down 0.1 percent in 2023, unemployment peaking at 6 percent in 2024 (similar to 1990 and 2001 recessions)
  - Home sales down 7.4 percent in 2022, down 9.7 percent in 2023
  - HPA drops from 20 percent in Q1 2022 to 10.8 percent by year end and 3.2 percent in Q4 2023
    - When adjusted for inflation, near zero home price growth by end of 2023
    - Some regions will experience outright house price declines in 2023

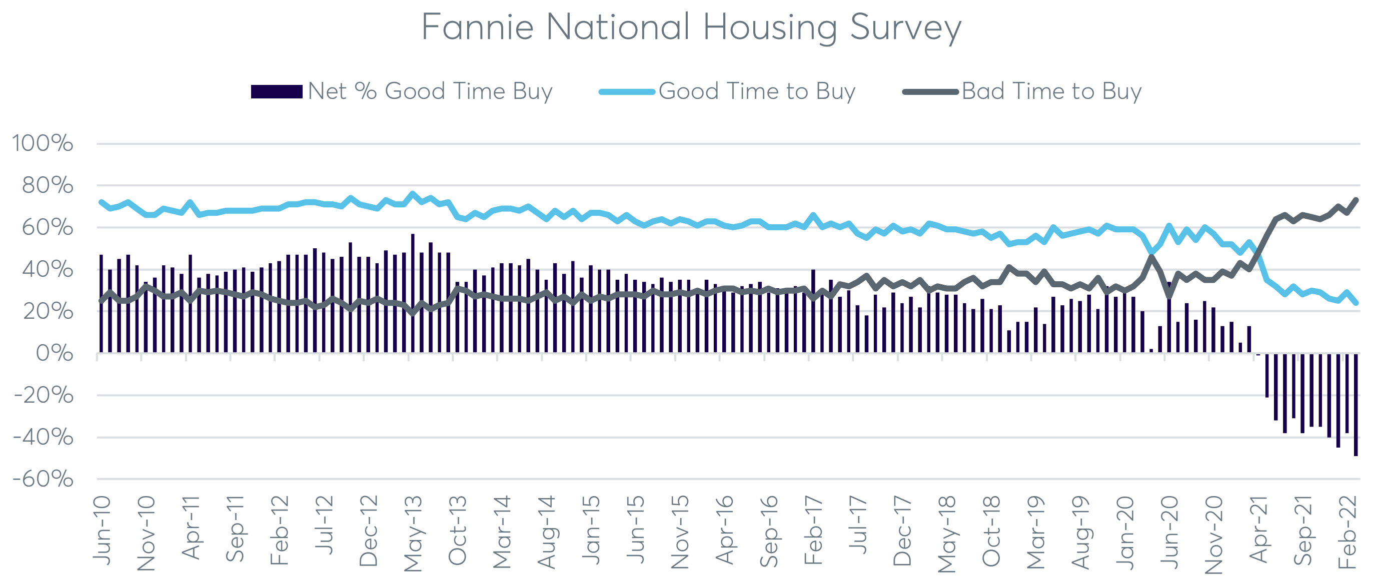


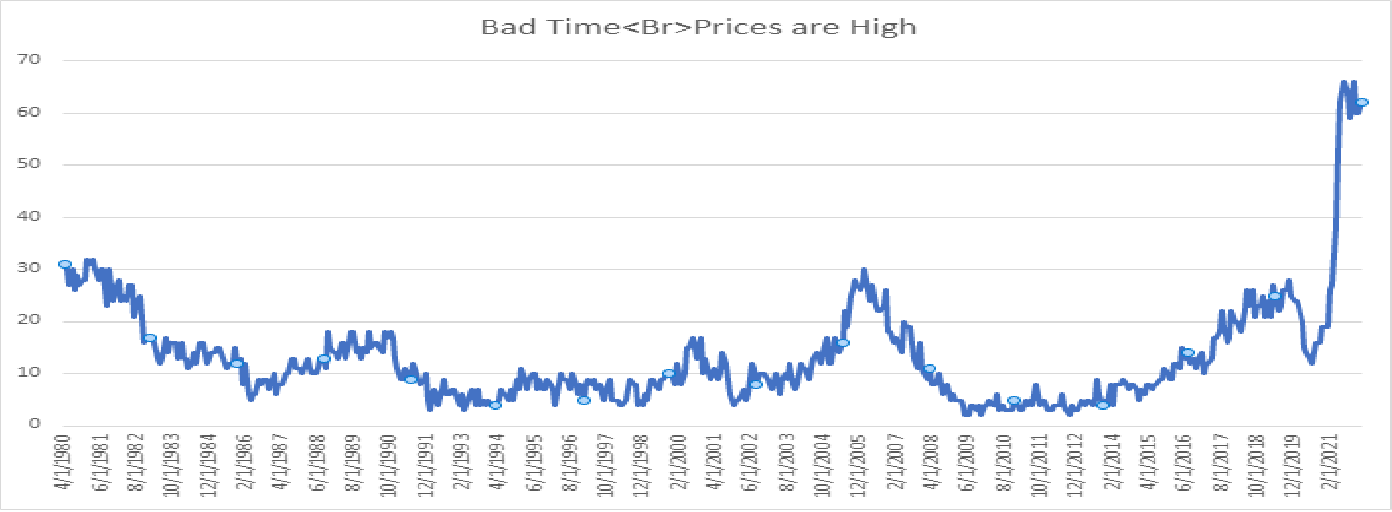


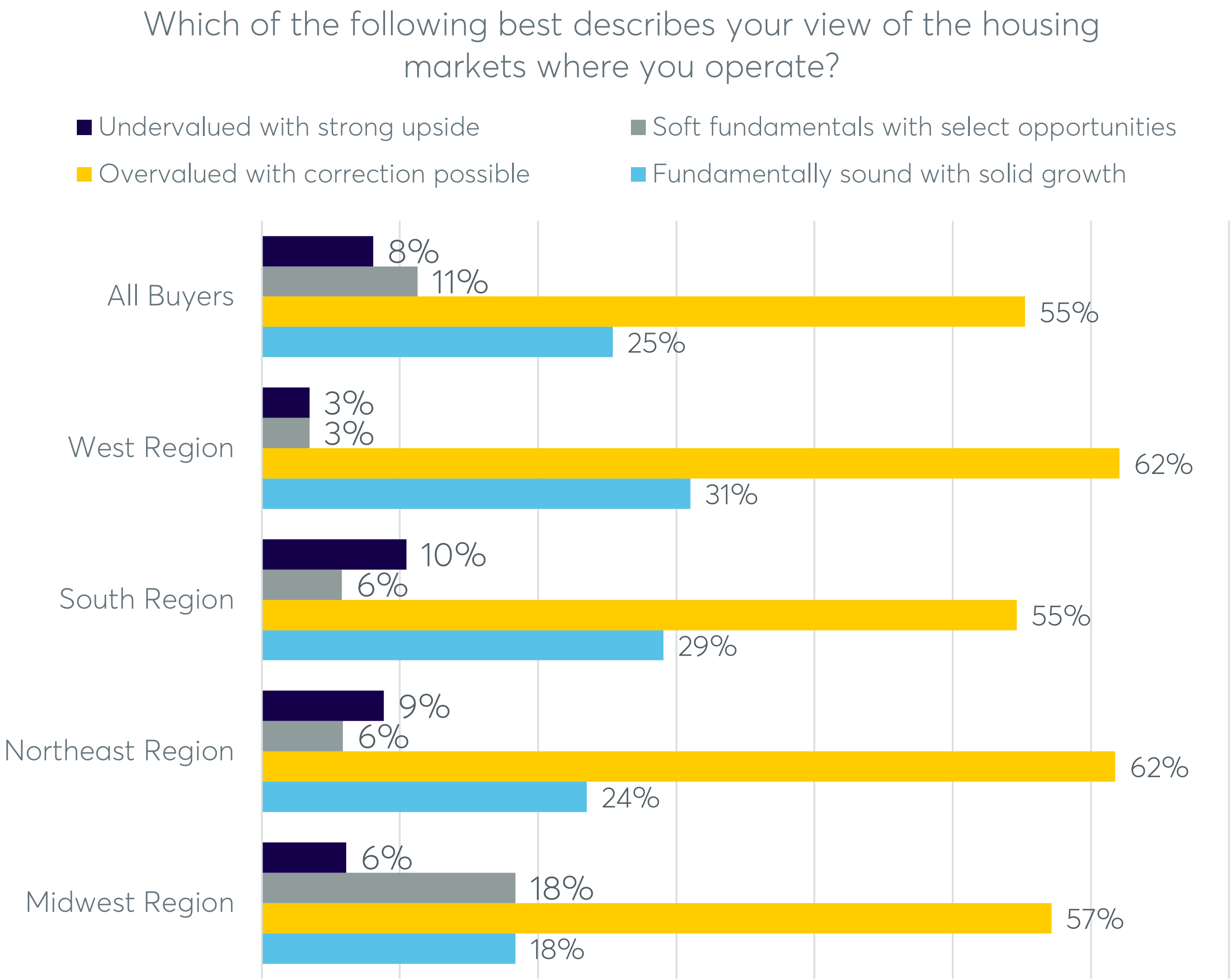
Sources: Fannie Mae

Are home prices overheated and due for a correction (or crash)?

- Consumers: 73 percent said it's a bad time to buy a home in March 2022, highest on record (June 2010)
  - 62 percent say it's a bad time to buy because prices are high, hovering near all-time high of 66 percent in November 2021
- Auction.com buyers: 55 percent describe their market as "overvalued with correction possible", up from 40 percent a year ago
  - 17 percent expect flat or declining prices in their market in 2022, up from 12 percent a year ago



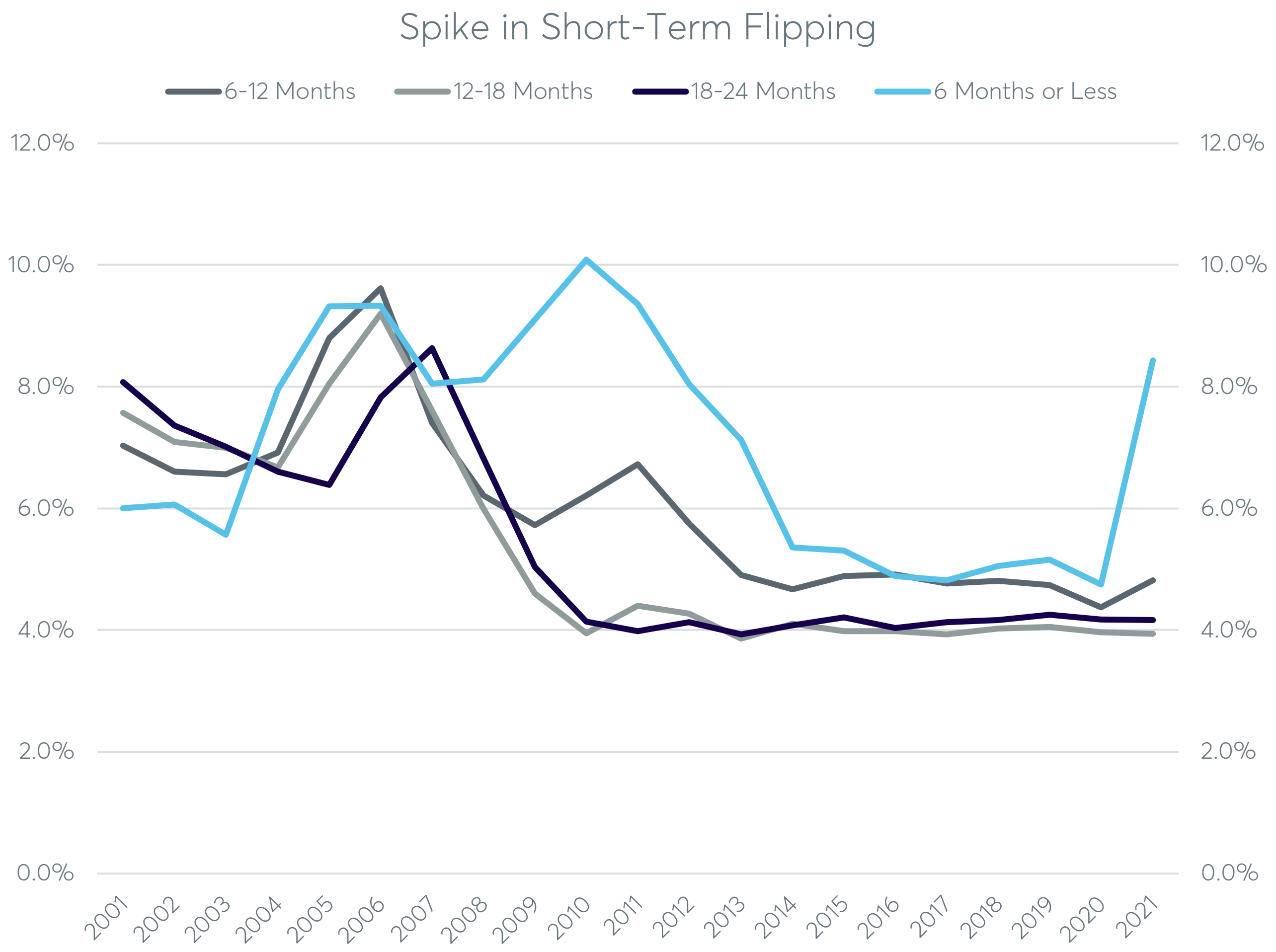


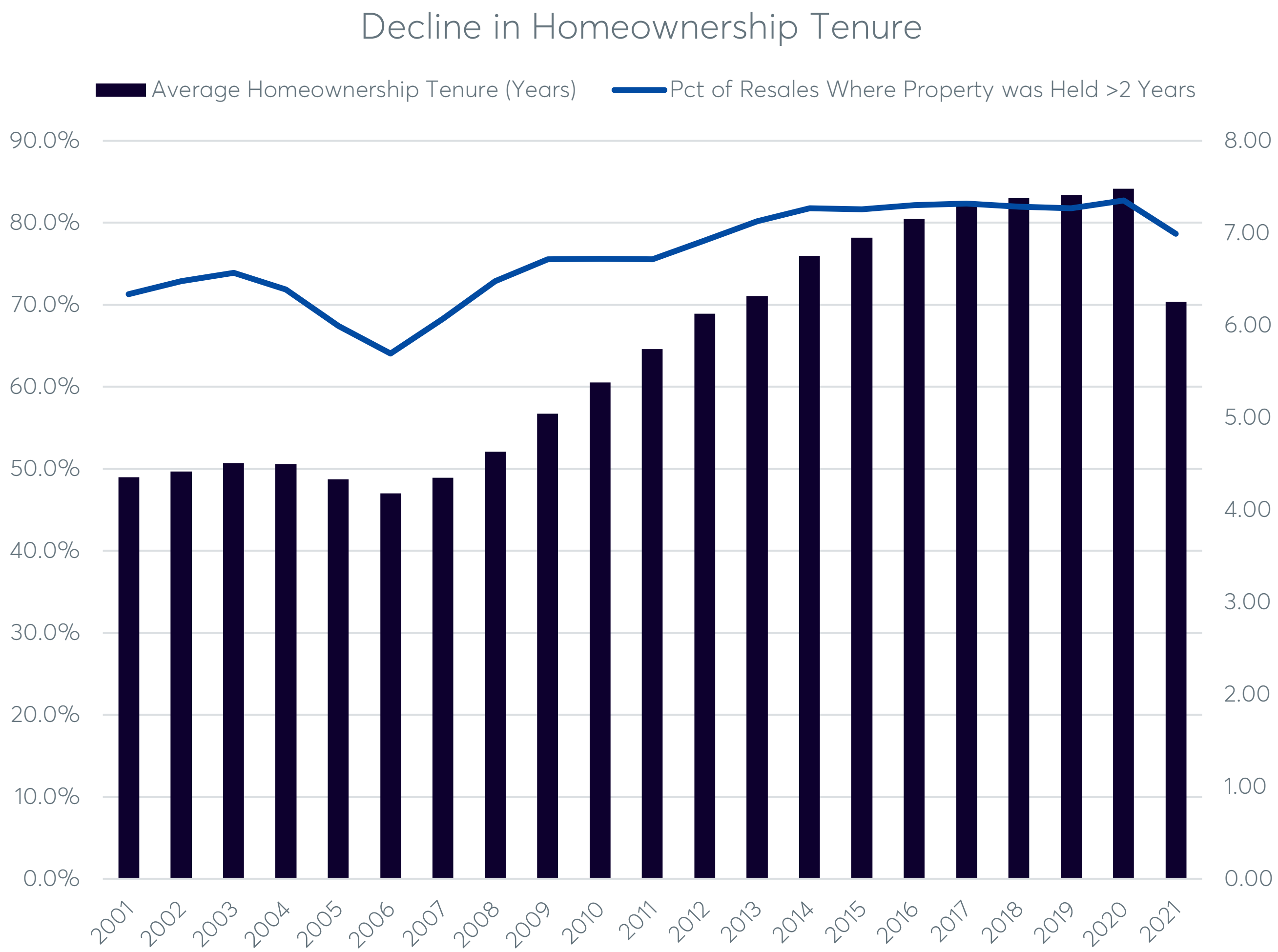


Sources: Fannie Mae, University of Michigan, Auction.com 2022 buyer survey

Are home prices overheated and due for a correction (or crash)?

- Concerning spike in short-term flipping
- Pct of home sales that were resales of homes purchased in the last six months up 78 percent from 2020 to 2021
    - Similar to spike seen back in 2004 (up 43 percent from 2003) and 2005 (up 17 percent from 2004) that preceded housing bubble bursting
- Average homeownership tenure drops to 6.25 years in 2021 at lowest level since 2012
    - Pct of resales where property was held at least two years at lowest level since 2012
    - Saw a sharp drop in this metric in the years leading up to the housing bubble bursting

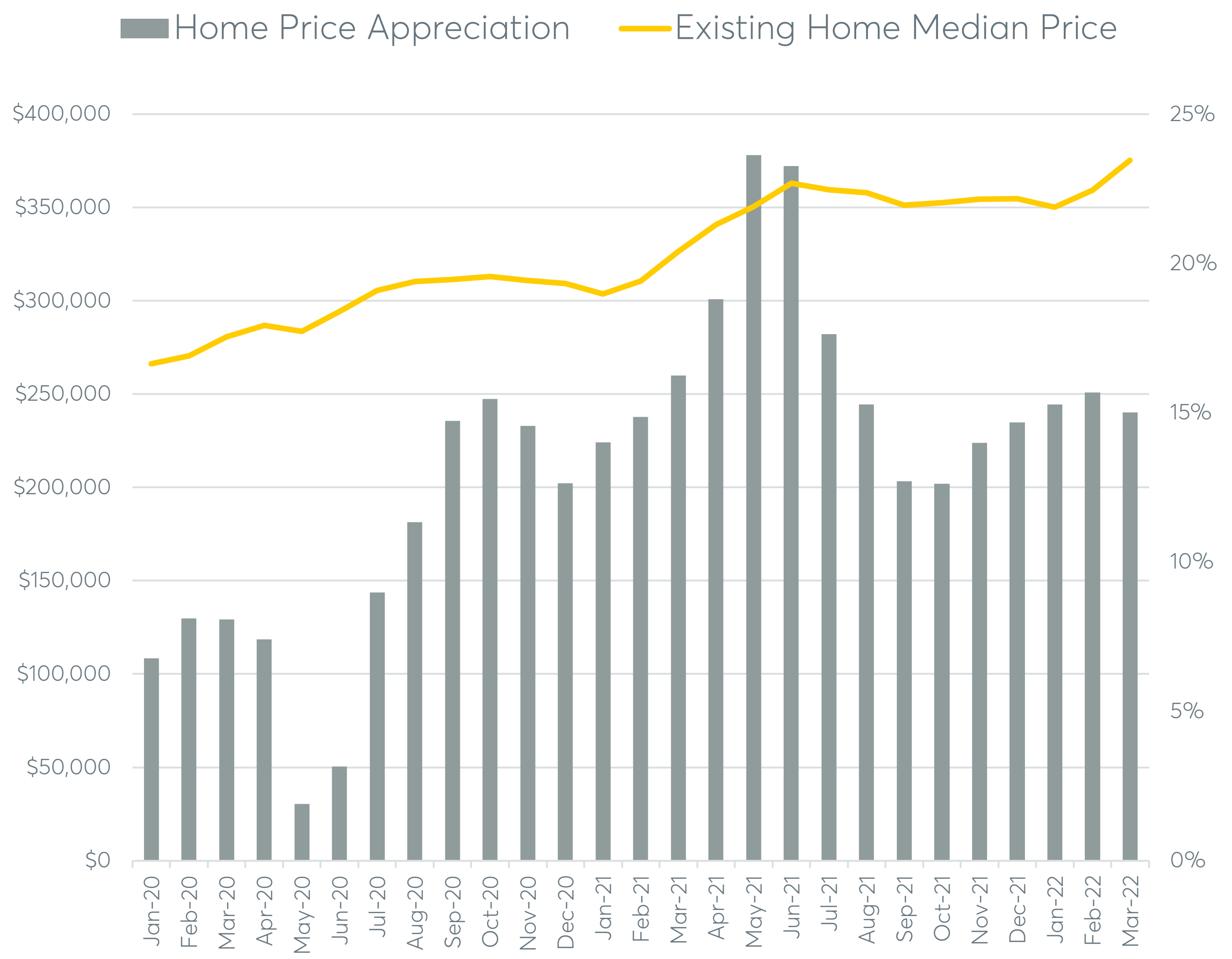


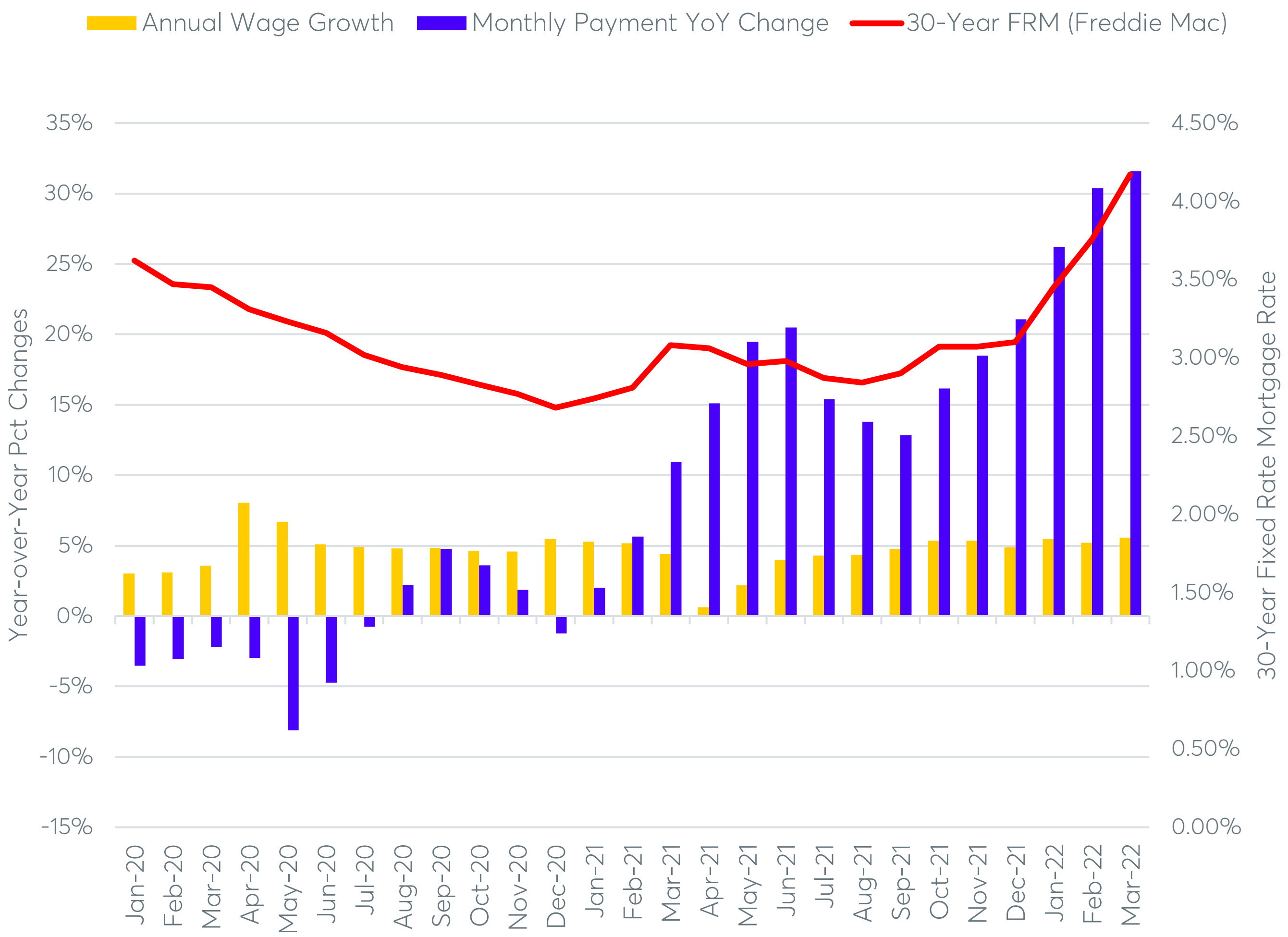


Source: ATTOM Data Solutions

When will housing demand capitulate to affordability constraints?

- Median home price up 15 percent YoY to new all-time high in March 2022 ($375,300)
- Mortgage payment on median-priced home up 32 percent from year ago as mortgage rates rise
- Avg income earner would need to spend 26.6 percent of income for mortgage payment (not including taxes and insurance) on median-priced home

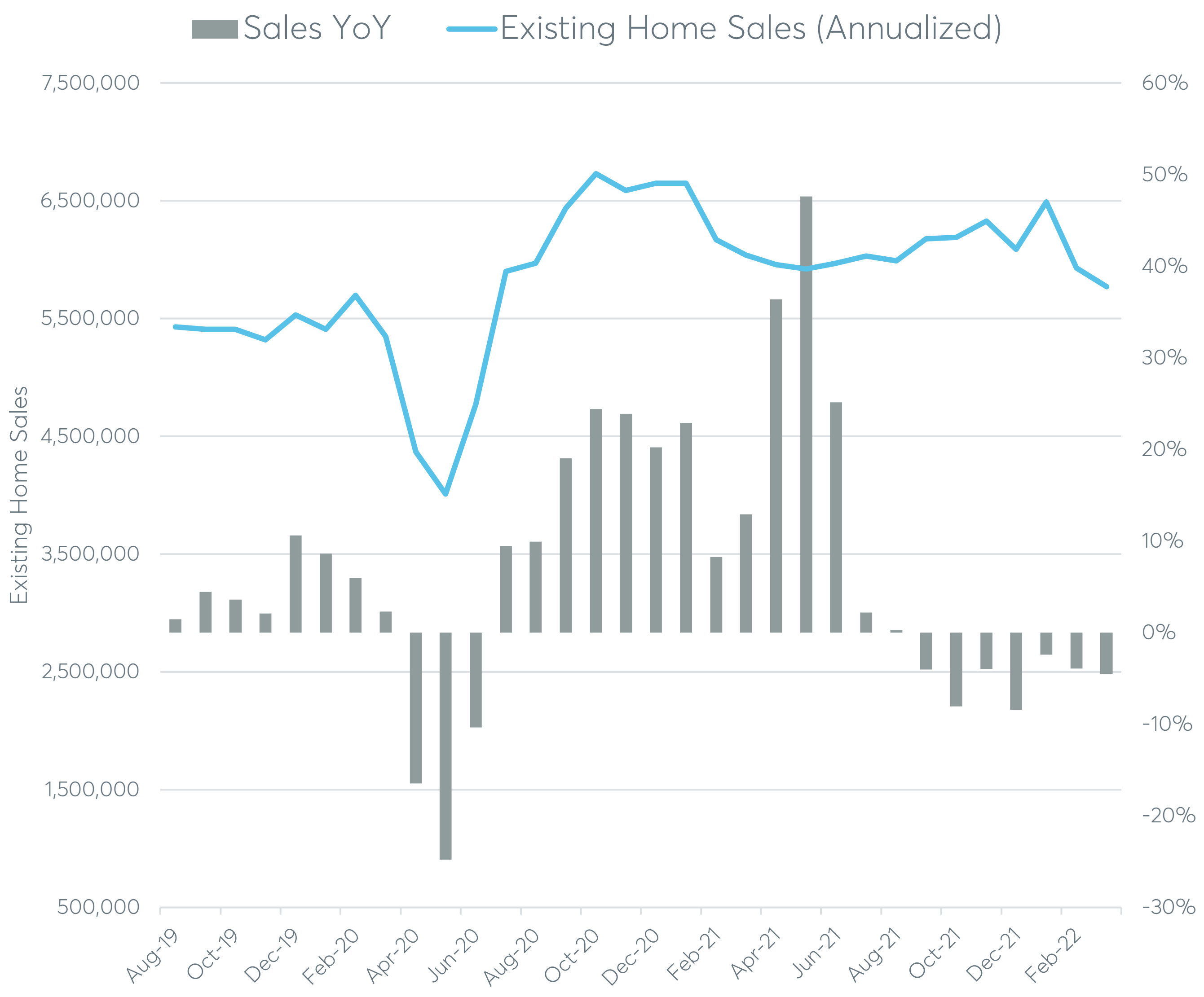


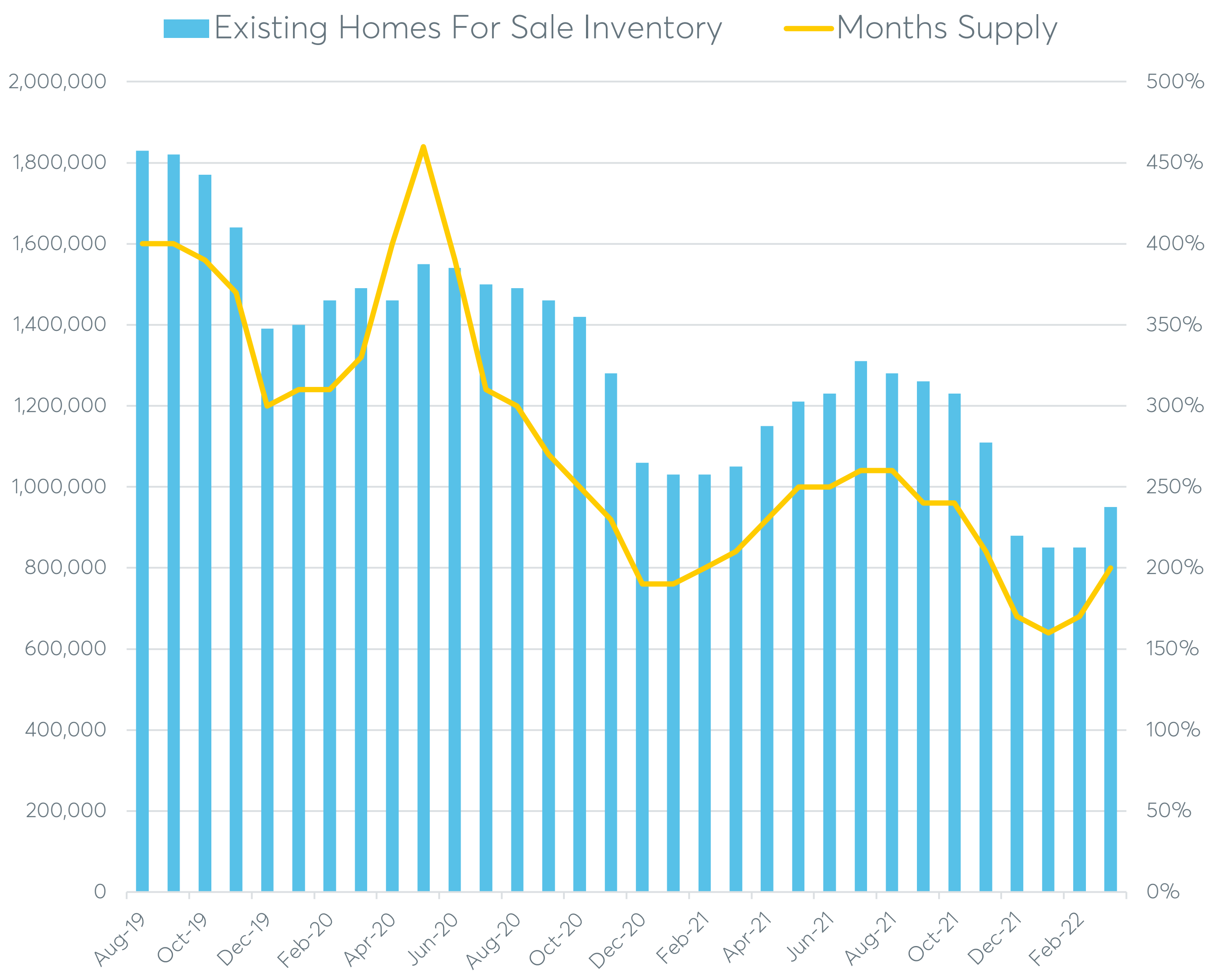


Sources: NAR

When will housing demand capitulate to affordability constraints?

- Some signs that the market is finally capitulating a bit to affordability constraints
  - Home sales in March down 4.5 percent from year ago, seventh consecutive month with a year-over-year decline
  - Inventory of homes for sale in March increased 12 percent from previous month, first MoM increase after seven straight months of flat or declining inventory (still down YoY)

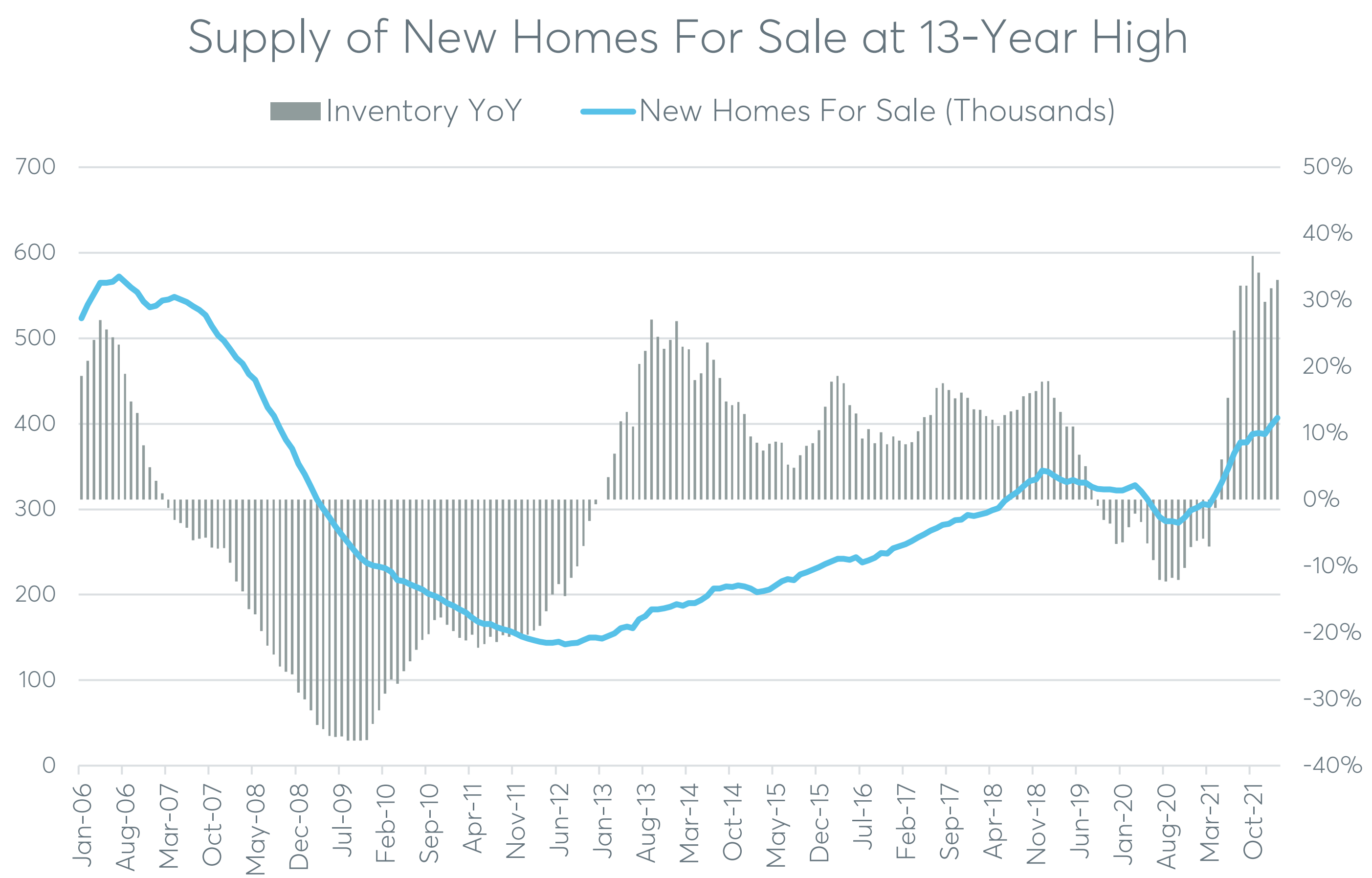


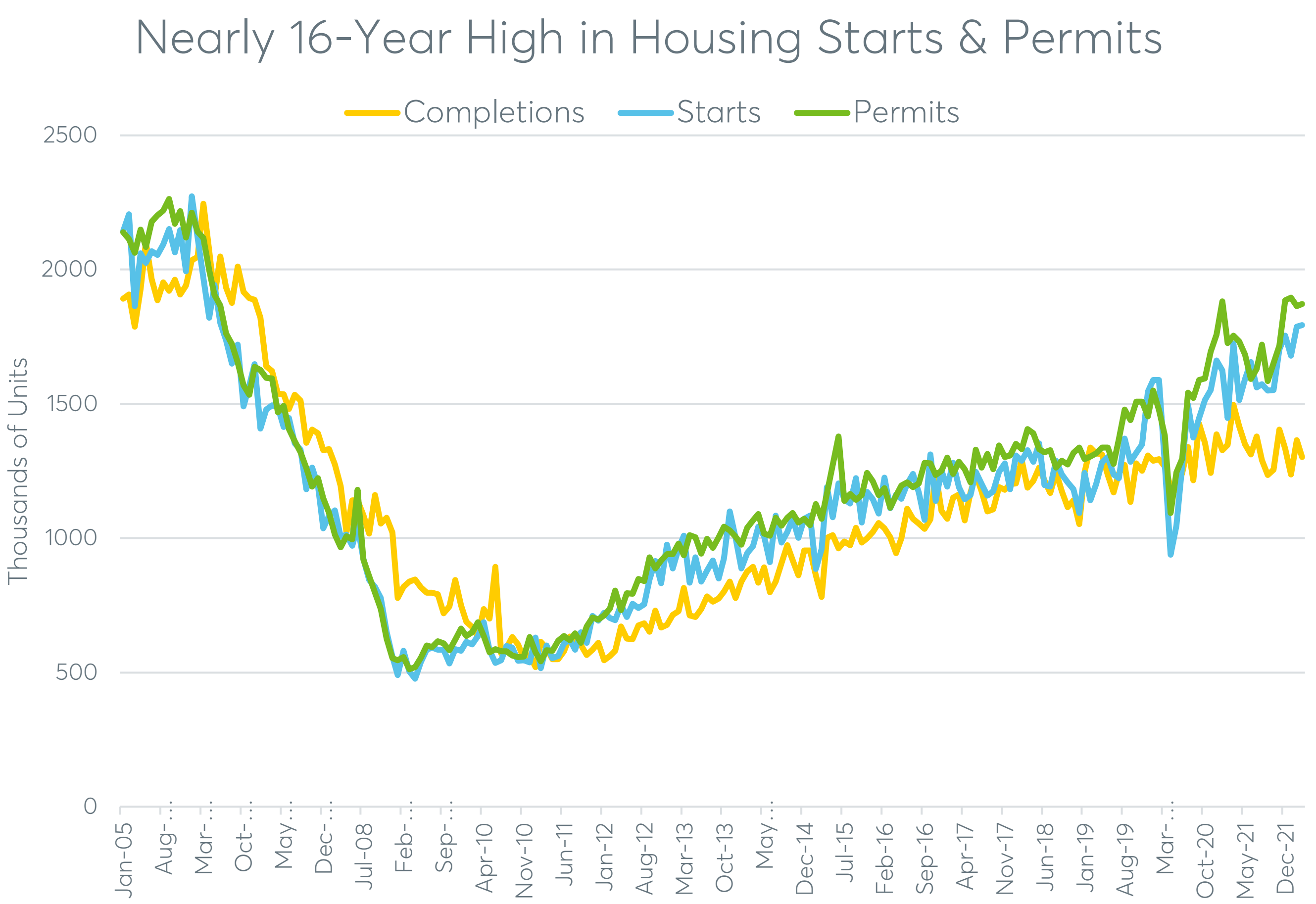


Sources: NAR

Are the seeds of oversupply being planted?

- 1.8 million housing starts (annualized) in March, up 4 percent from year ago to a nearly 16-year high (highest since June 2006)
  - Building permits hit nearly 16-year high of 1.9 million in January 2022
  - Housing completions down 13 percent YoY in March, evidence of supply chain issues and labor shortages keeping homes from being finished
- Inventory of new homes for sale at 407K, up 33 percent from year ago to a more than 13-year high (highest since August 2008)
  - Months supply at 6.3, up from 6.1 months in January and up from 4.2 months in March 2021. Has been hovering near 6 months for nine consecutive months
- 772K new home sales (annualized) in February, down 6percent from year ago. Ninth consecutive month down on YoY basis.



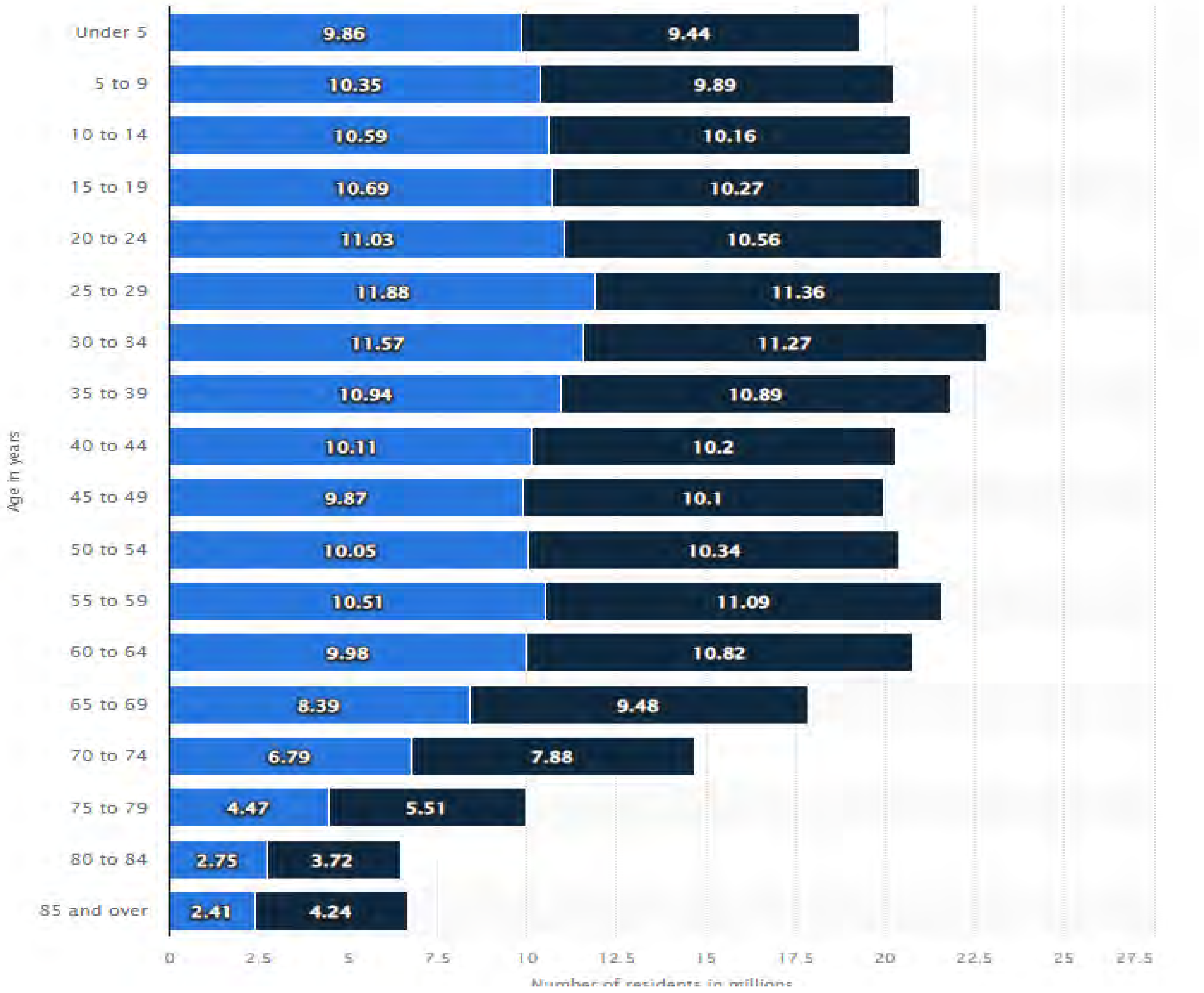


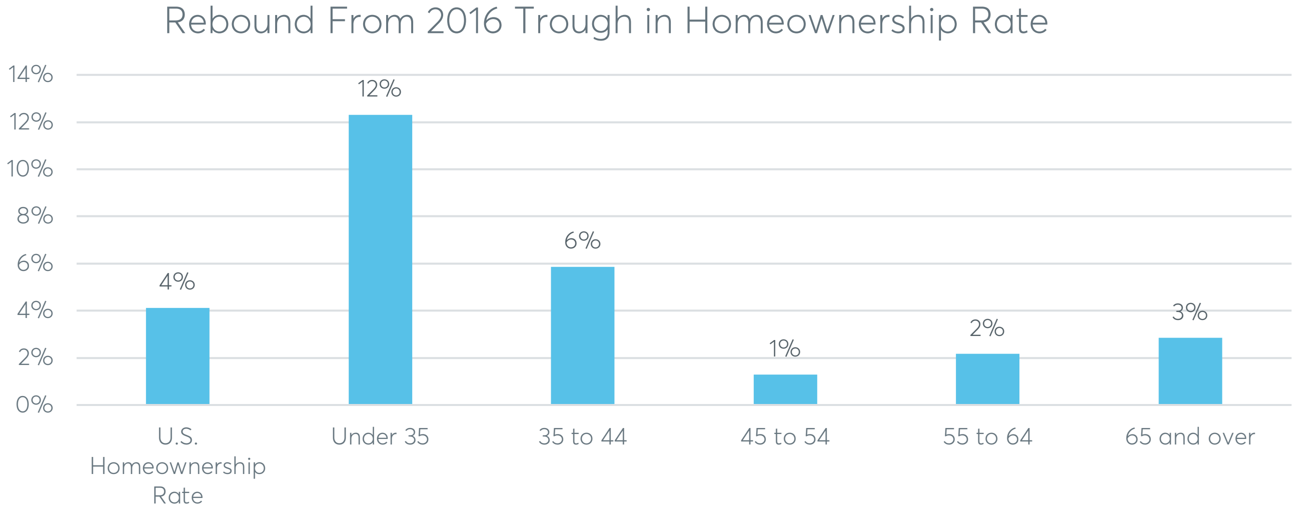
Sources: Census Buearu

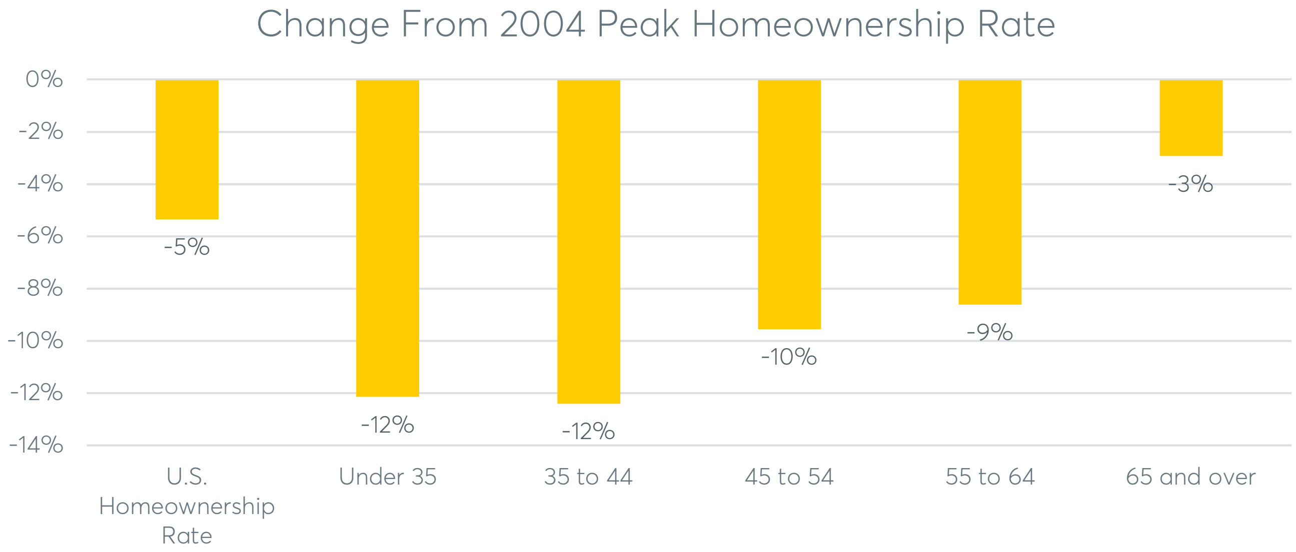
How will demographic trends help or hurt housing?

- <u>Help: still runway for more millennials to become homeowners</u>
- Median age of first-time homebuyer is 33 – two biggest population cohorts at or younger than that age
- Under-35 age bucket still furthest below peak homeownership rates (but fall-off in population after that)

Population by age range as of July 1, 2020



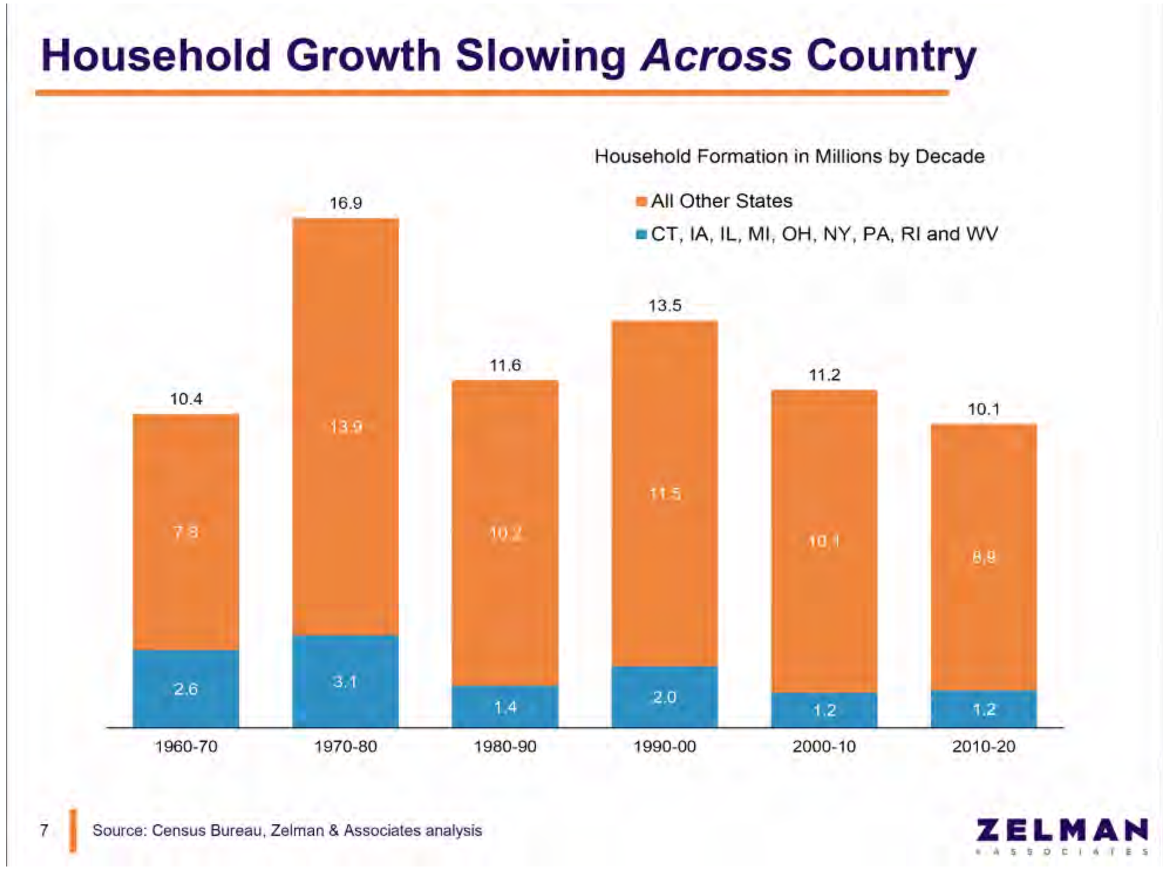


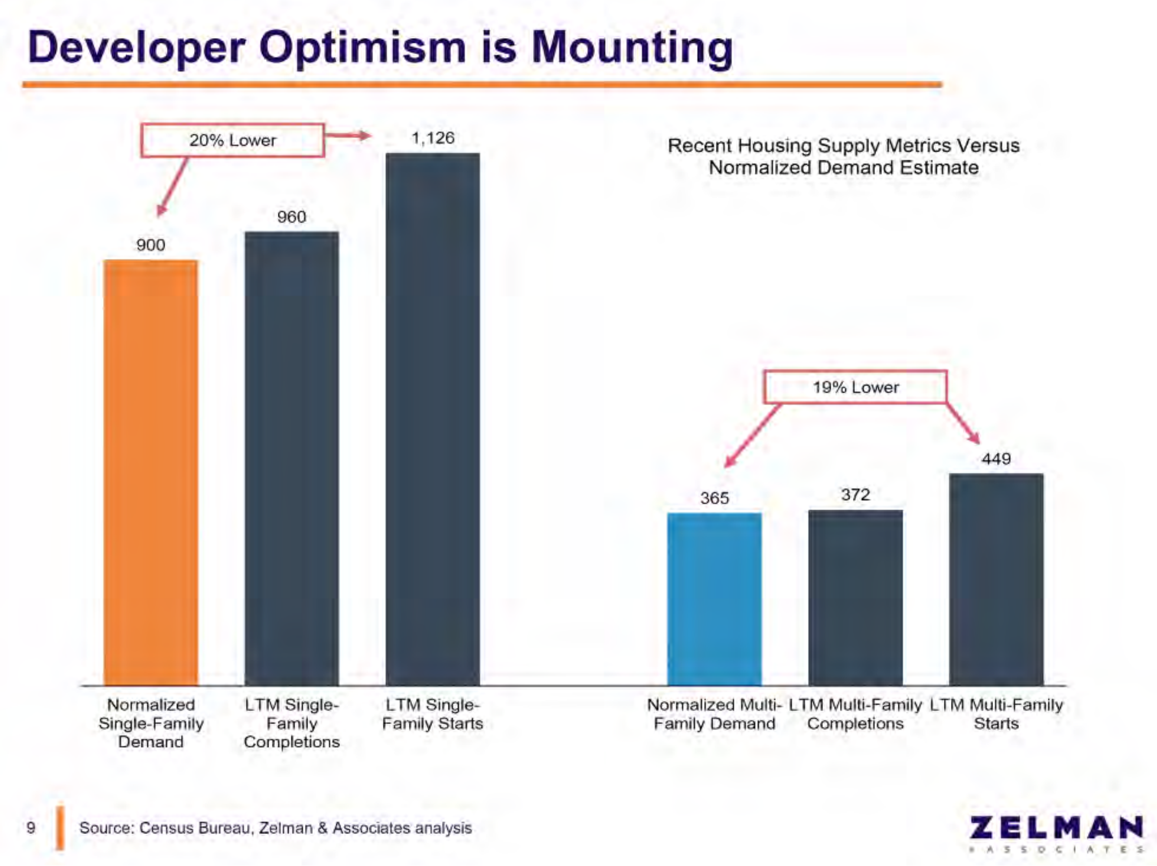


Source: Statista, Census Bureau

How will demographic trends help or hurt housing?

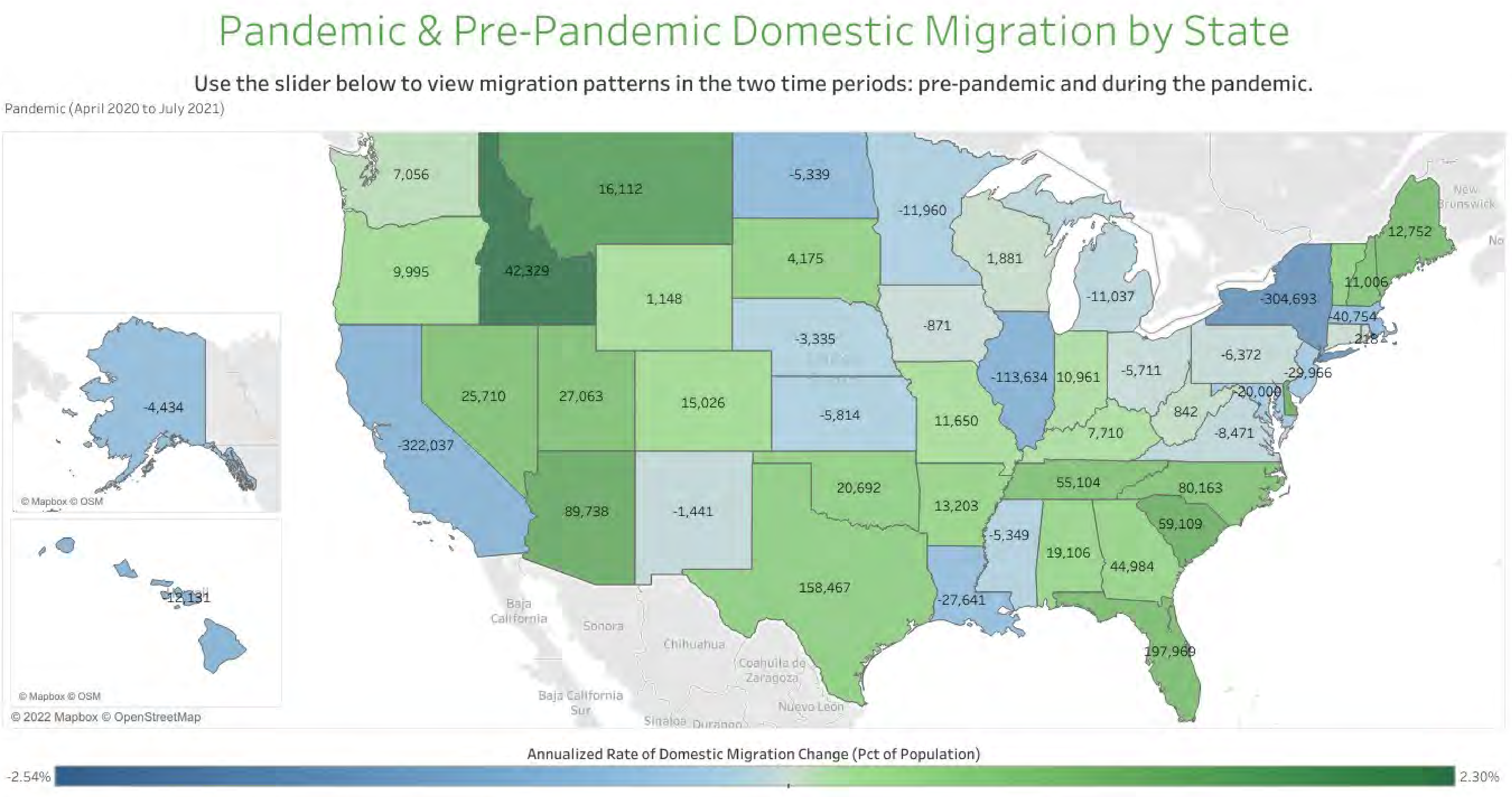
- <u>Hurt: "seeds of oversupply already planted"</u>
- Household formation (which drives housing demand) grew at slowest pace on record in past decade (10.1 million/8.7%)
- Zelman is forecasting even slower growth of 7.9 percent over next decade (another 10.1 million)
  - Based on slowing population growth and increasing number of adults per household, among other factors
- 1.265 million new housing units per year to meet this demand over next decade
  - 1 million per year for new households formed plus ~265K per year to replace lost housing stock (demolitions, etc.)
  - Starts 20 percent oversupplied for single family and 19 percent oversupplied for multi-family





Source: Zelman & Associates

How will demographic trends help or hurt housing?



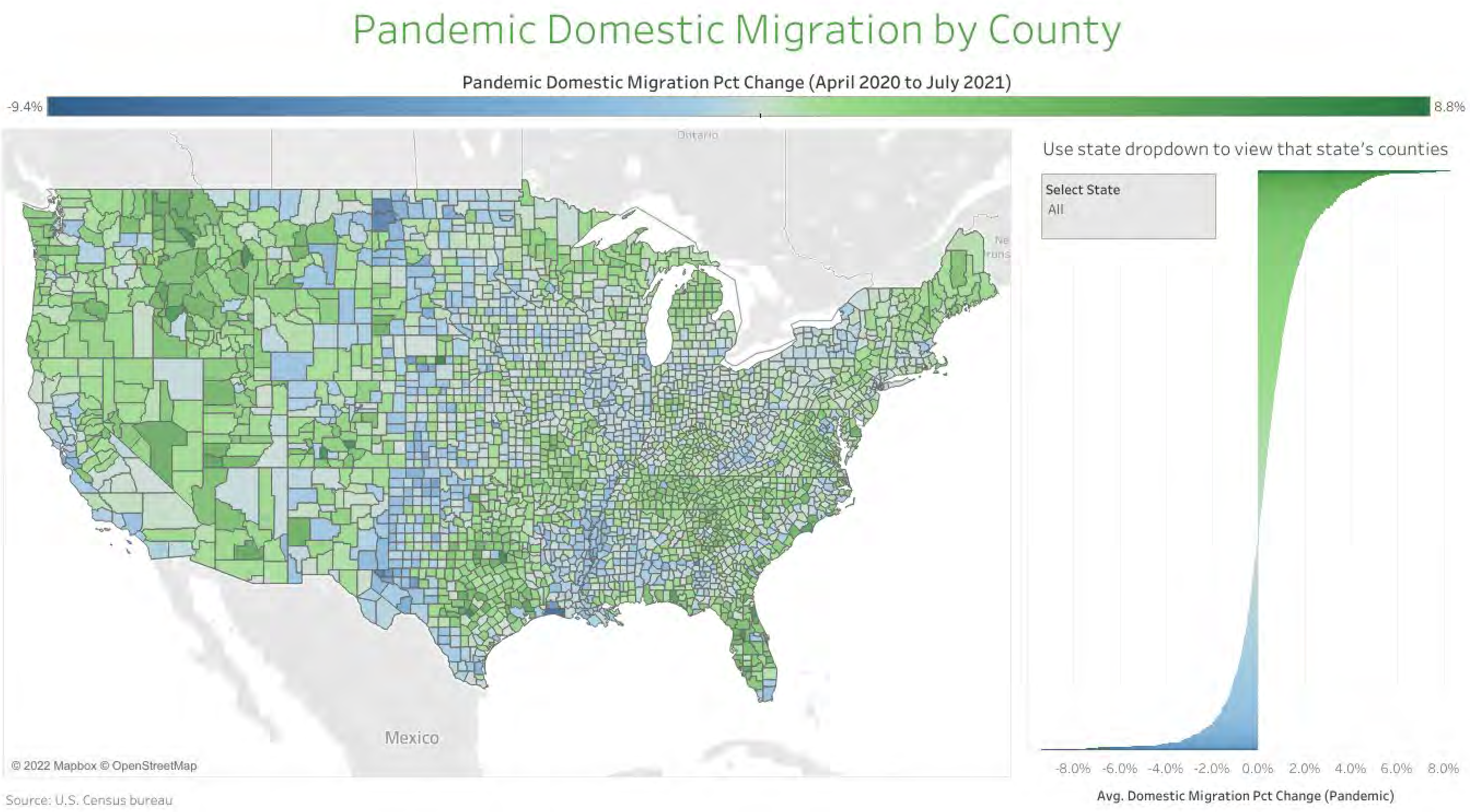
Source: Auction.com analysis of Census migration data: https://www.census.gov/data/datasets/time-series/demo/popest/2020s-national-total.html

[Interactive heat map]

- Most domestic migration gain during pandemic: FL, TX, AZ, NC, SC, TN, GA, ID, UT, NV
- Most domestic migration loss during pandemic: CA, NY, IL, MA, NJ, LA, MD, DC, HI, MN
- Migration turned from negative to positive during pandemic: MO, IN, KY, VT, WI, WY, WV, RI, CT
- Migration turned from positive to negative during pandemic: DC, ND

Sources: U.S. Census Bureau

How will demographic trends help or hurt housing?



Source: U.S. Census bureau

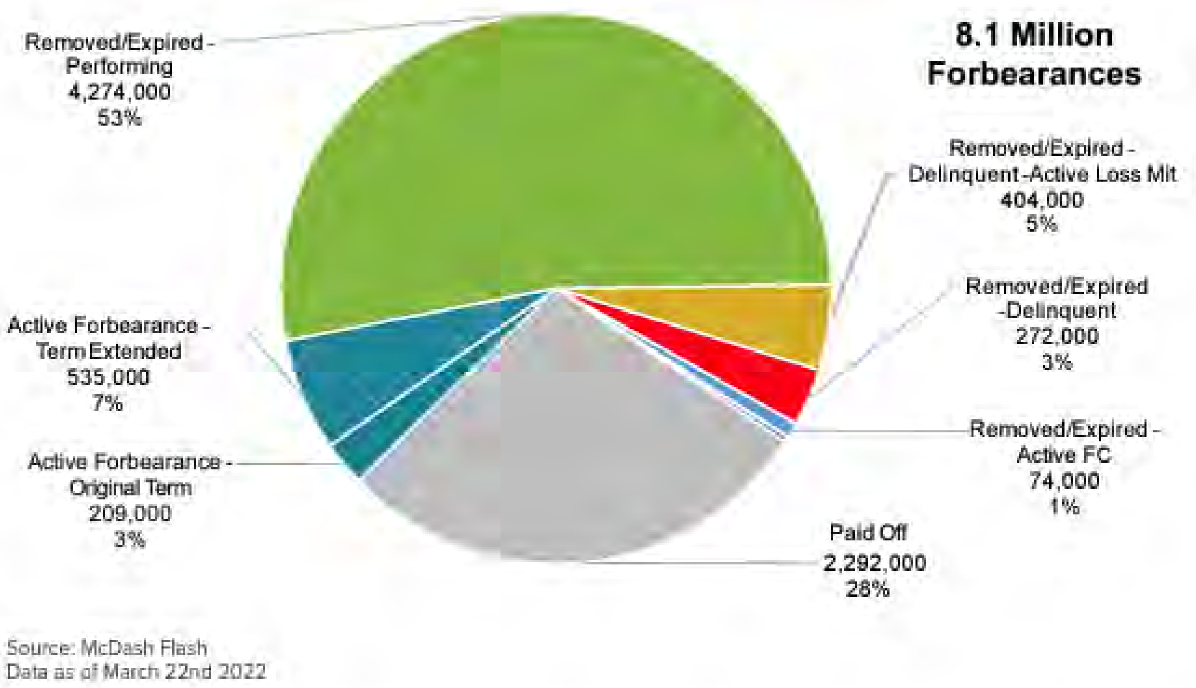
- Most domestic migration gain during pandemic: Maricopa, AZ, Collin, TX, Riverside, CA, Williamson, TX, Lee, FL
- Most domestic migration loss during pandemic: Los Angeles, Manhattan, Brooklyn, Cook, IL, Queens
- Biggest percent gain in counties over 100K: Comal, TX, Kaufman, TX, Rockwall, TX, St. Johns, FL, Sumter, FL
- Biggest percent loss in counties over 100K: Manhattan, San Francisco, Calcasieu, LA, Alexandria, VA, Brooklyn

Interactive heat map

Sources: U.S. Census Bureau

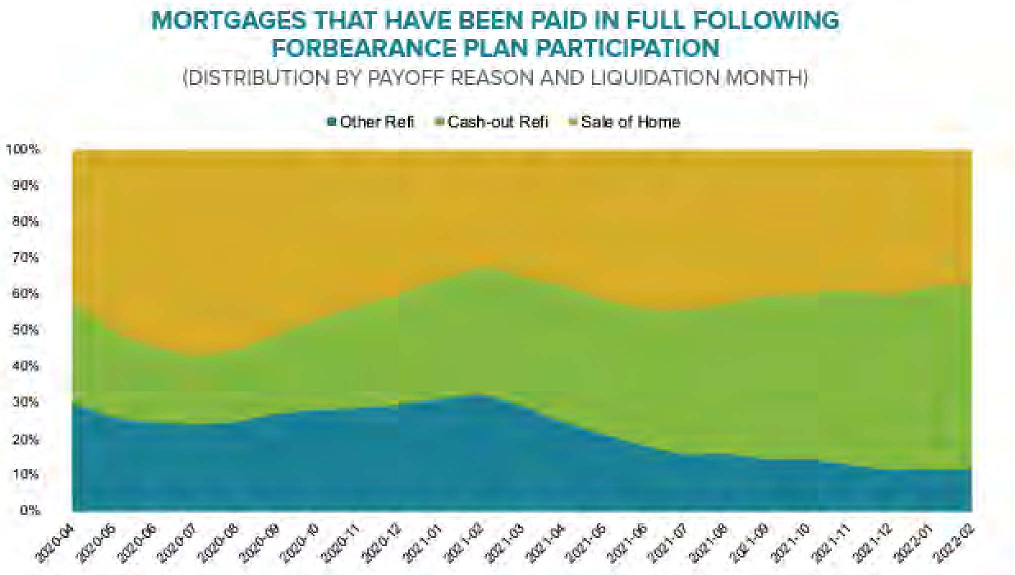
1. How big and bad is the backlog of pandemic distress?
2. How much distress is actually making it to foreclosure?
3. Where and what foreclosures returning the fastest?
4. What could foreclosure volume look like over the next five years?
5. How is demand for distressed properties holding up?

How big and bad is the backlog of pandemic distress?



- 8.1M borrowers have now been in forbearance at some point since the onset of the pandemic
- 90% have since exited their plans, with more than half returning to making mortgage payments and another 28% having paid off their mortgages in full
- The backlog of loans in post-forbearance loss mitigation has begun to improve, seeing a 10% reduction over the past 30 days, but >400K borrowers are still working through options with their servicers

- 346K mortgages that are delinquent or in foreclosure but not in forbearance or loss mitigation
  - Up from 345K as of Feb. 22, 2022
  - Up from 322K as of Jan. 25, 2022
  - Up from 222K as of July 13, 2021 (before moratorium expired)
- Among 2.2 million forbearance exits due to loan payoffs
  - 42 percent sold the home (924K)
  - 35 percent cash-out refinance (770K) – potentially at-risk for redefault?

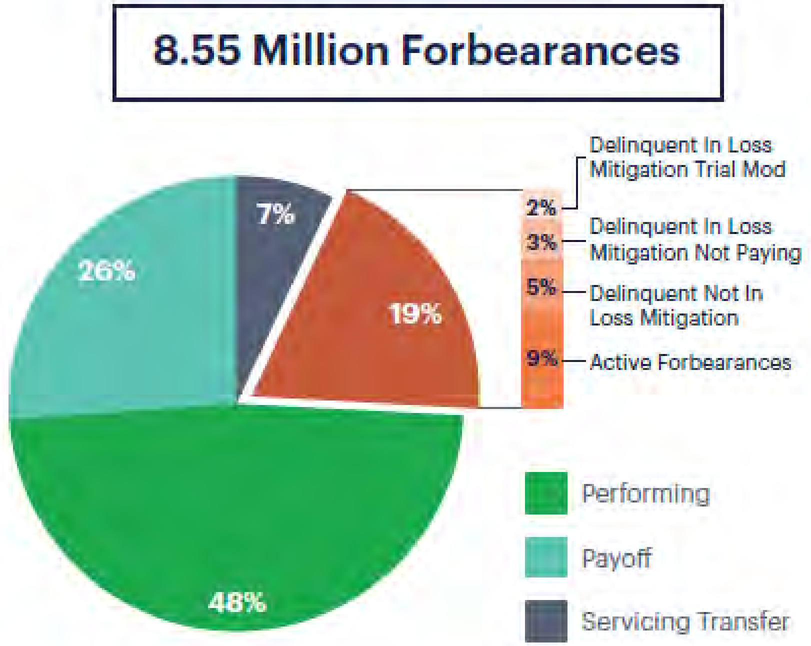


- Of the 2.2M post-forbearance borrowers who paid off their loans in full, the largest share (42%) did so through the sale of the home
- Cash-out refinances accounted for the second-largest share (35%), which suggests many borrowers may have used the equity in their homes to help right their financial situation

Sources: Black Knight Mortgage Monitor Reports

How big and bad is the backlog of pandemic distress?

Figure 2: Status of Loans Ever in a COVID-19 Forbearance as of March 7, 2022



Sources: Black Knight Data & Analytics, LLC; and RADAR

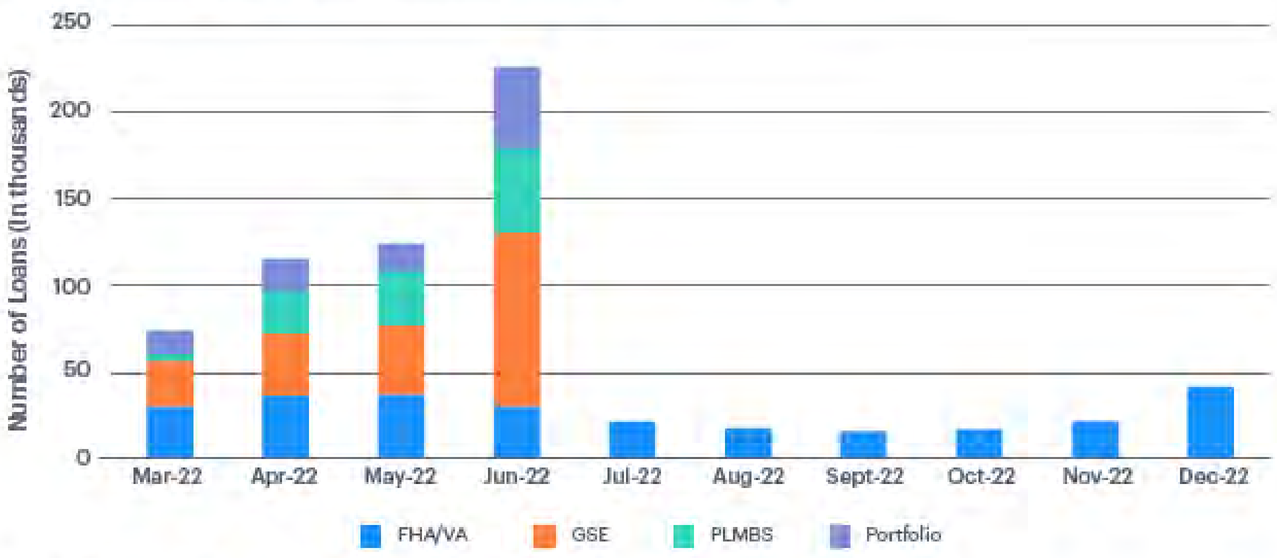
Table 3: Counts of Mortgage Loans Seriously Delinquent, Not in Forbearance by Investor Type as of March 7, 2022

Counts of Serious Delinquencies Not in Forbearance	FHA/VA	GSEs	PLMBS	Portfolio	Total
90+DPD	372,148	143,660	131,938	275,033	922,779
Not in Loss Mitigation	156,802	50,934	97,297	182,942	487,976
Share Never in Forbearance	53%	46%	61%	76%	63%
In Loss Mitigation	215,346	92,726	34,641	92,091	434,803
Share Never in Forbearance	15%	11%	20%	22%	16%
Share In Loss Mitigation, Not Paying	79%	56%	76%	71%	72%

Sources: Black Knight Data & Analytics, LLC; and RADAR

- 923K SDQ not in forbearance – down from 964K in Feb
  - 488K not in loss mitigation – down from 490K in Feb
  - 313K in loss mitigation but not paying – down from 341K in Feb
- Steady forbearance exits in Q2 2022 ending with June surge
  - About 100k in April and May
  - More than 200K in June

Figure 1: Projected Forbearance Exits as of March 7, 2022

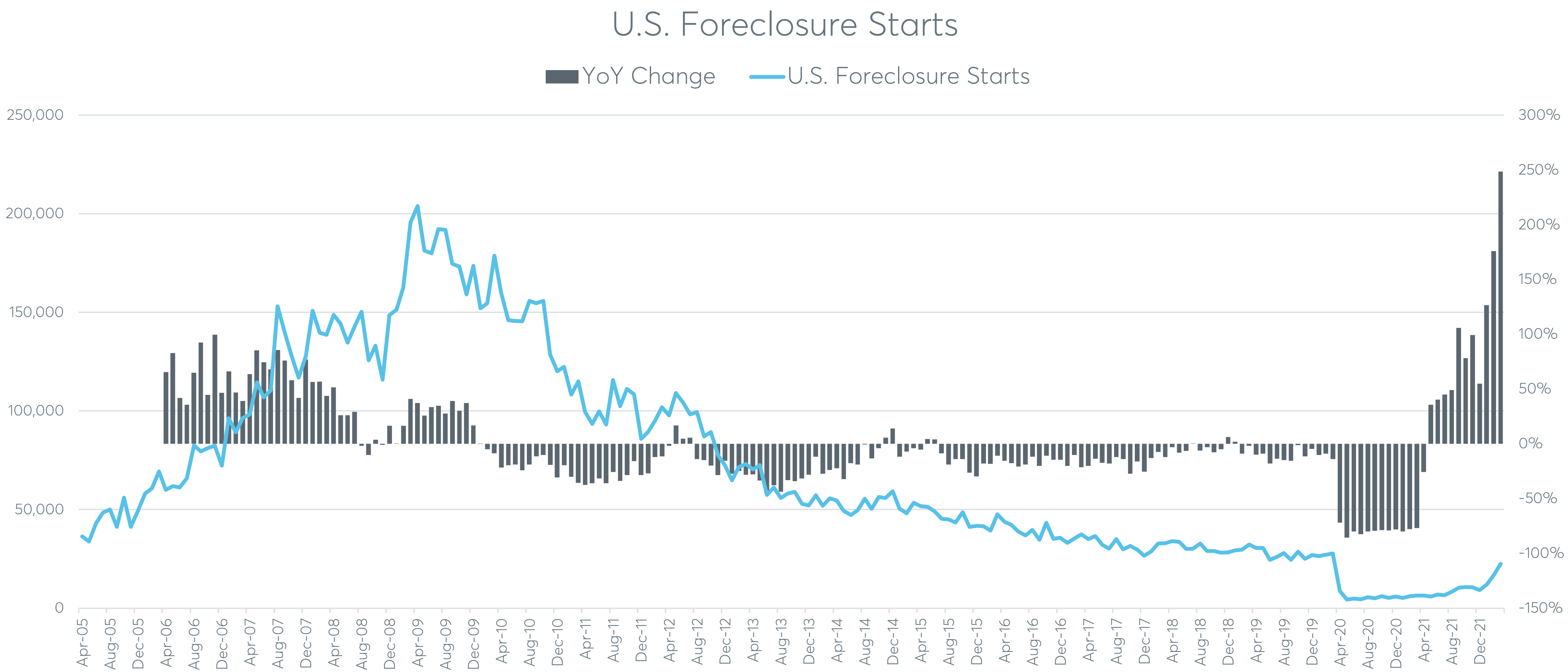


Sources: Black Knight Data & Analytics, LLC; and RADAR

Source: Federal Reserve Bank of Philadelphia

How big and bad is the backlog of pandemic distress?

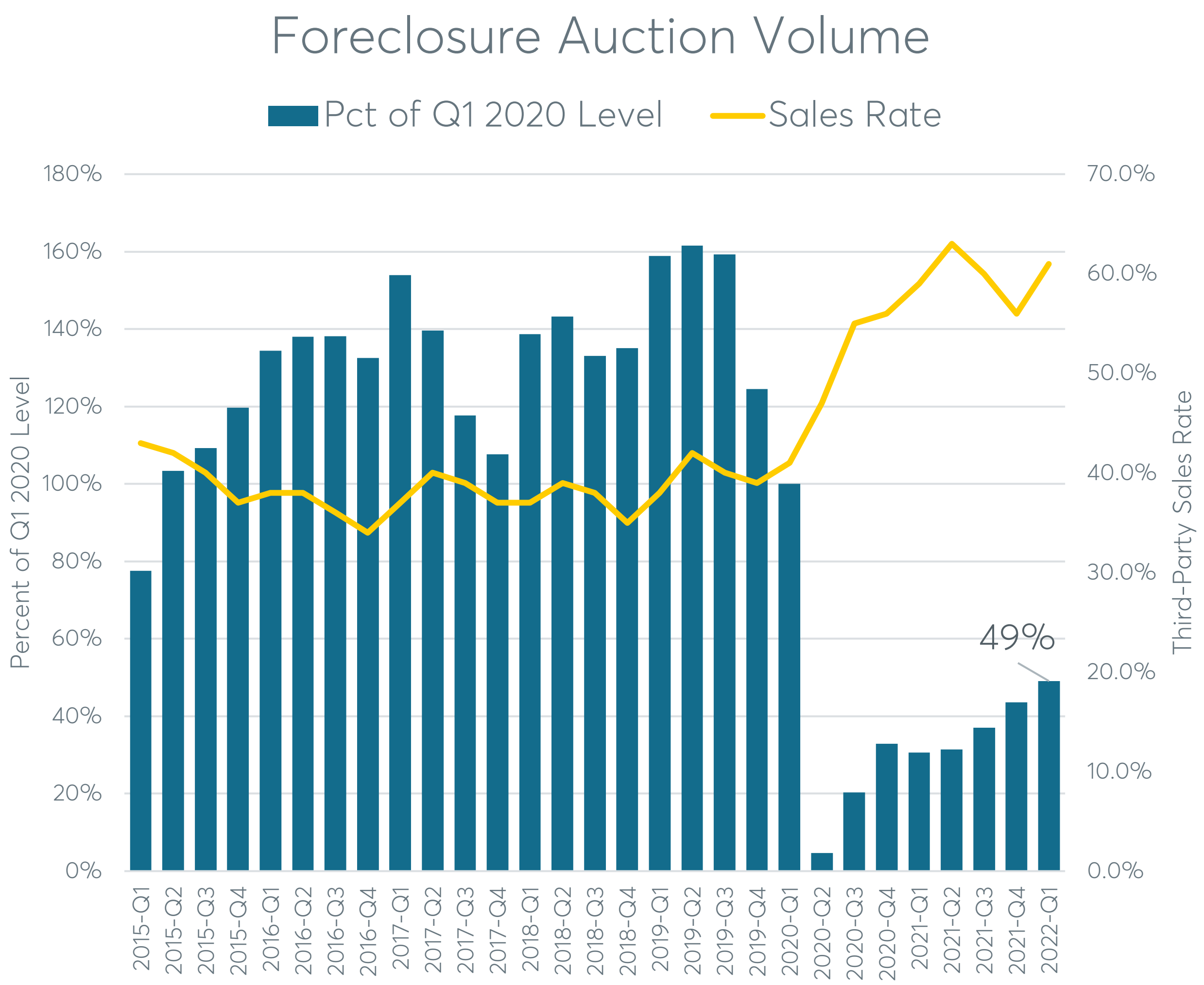
- 22K foreclosure starts in March 2022, up 248 percent from year ago to new pandemic high
  - Still 20 percent below March 2020 (pre-pandemic) levels
- California, Texas, Florida, Illinois, Ohio and Georgia all with more than 1,000 foreclosure starts for month
- Ohio, Arizona, South Carolina, Michigan, Indiana, Missouri, Alabama, Tennessee and Minnesota above pre-pandemic levels

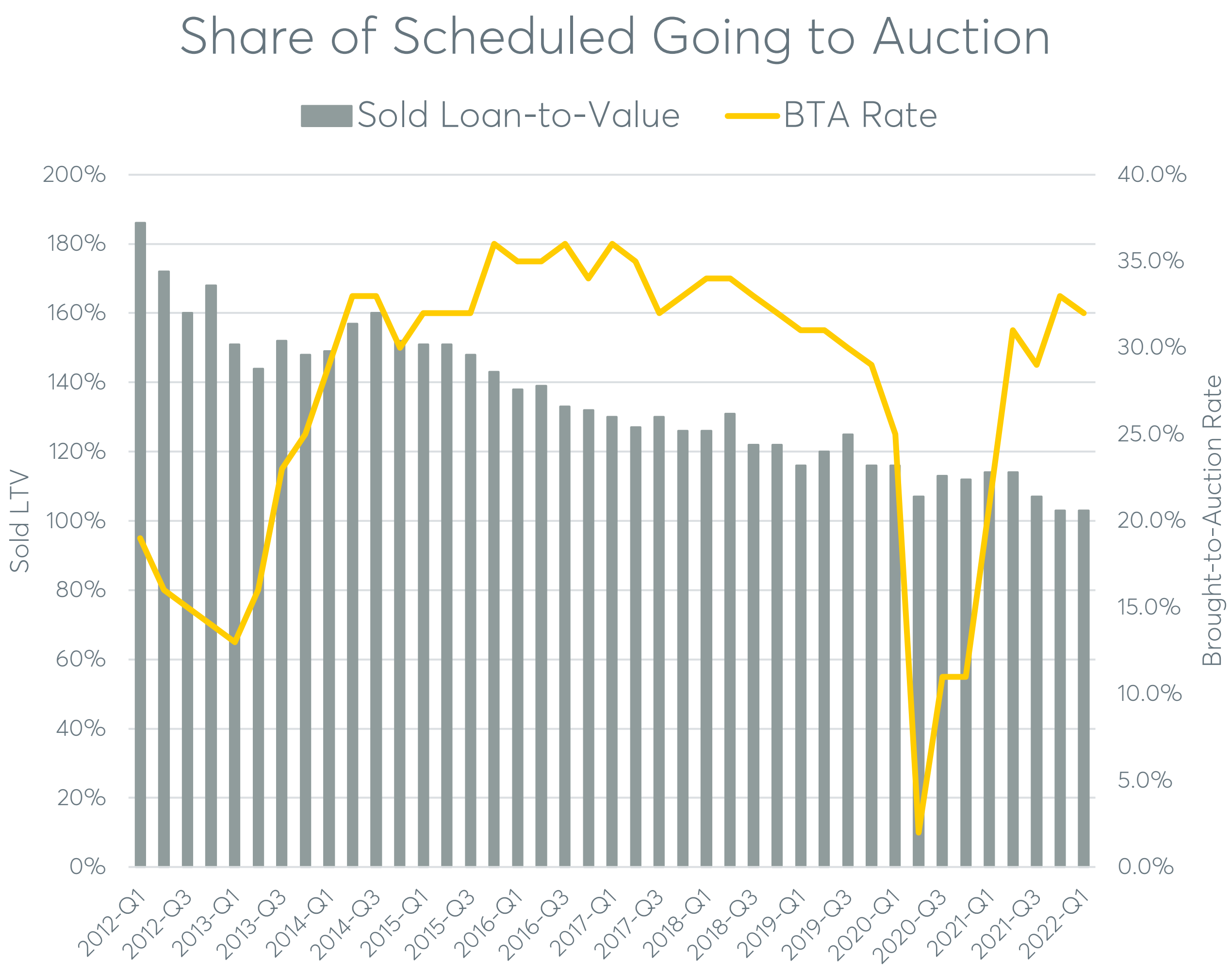


Sources: ATTOM Data Solutions

How much distress is making it to foreclosure?

- Completed foreclosures auctions increased to a new pandemic high Q1 2022 – still 51 percent below pre-pandemic level
  - Despite rising volume, demand at foreclosure auction still well above pre-pandemic levels: third-party sales rate of 61 percent in Q1 2022
- Share of scheduled auctions making it to auction have rebounded to pre-pandemic levels ~33 percent
  - Despite average loan-to-value dropping to an all-time low of 103 percent in Q1 2022

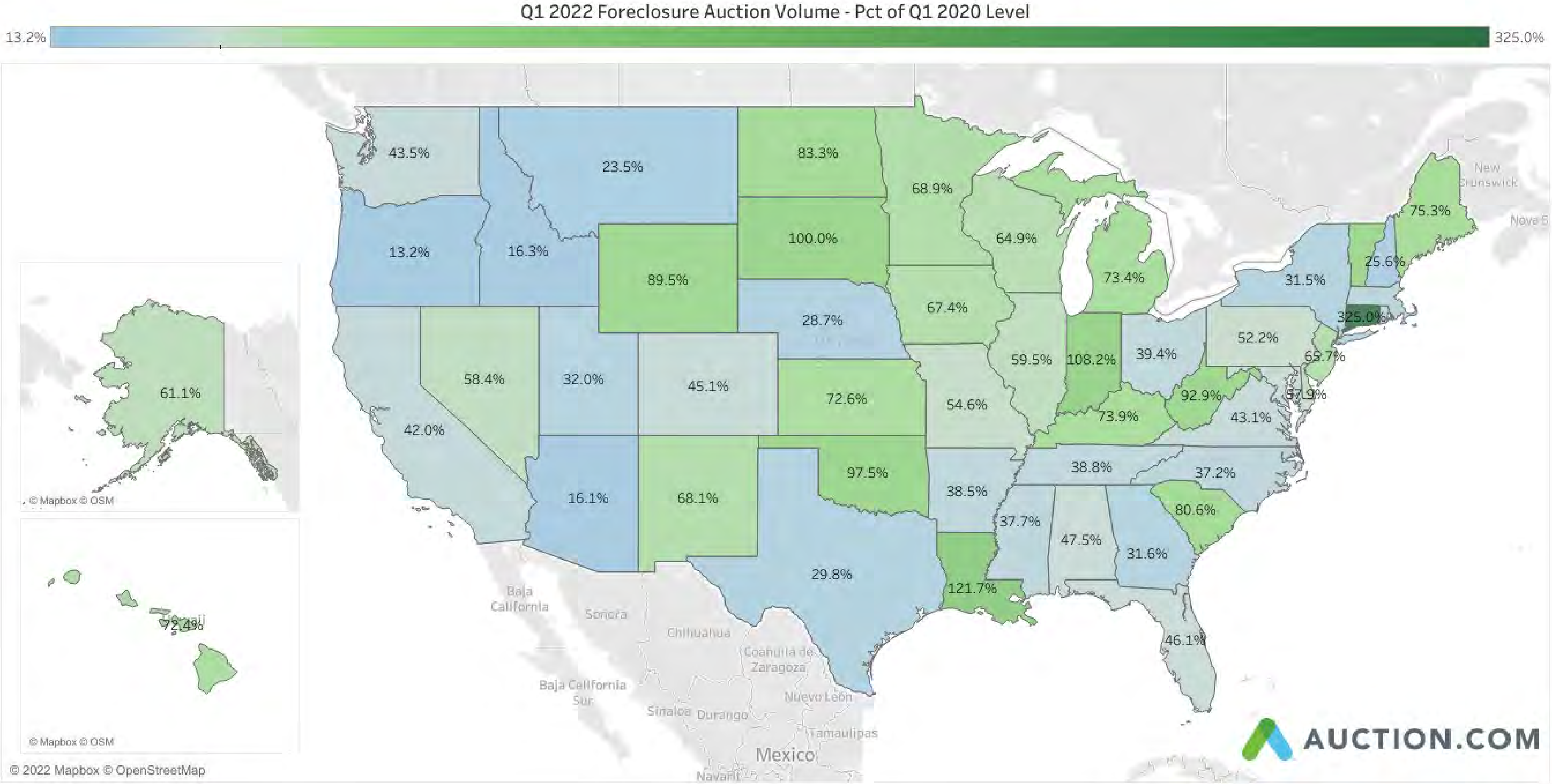




Source: Auction.com

Where are foreclosures returning the fastest?

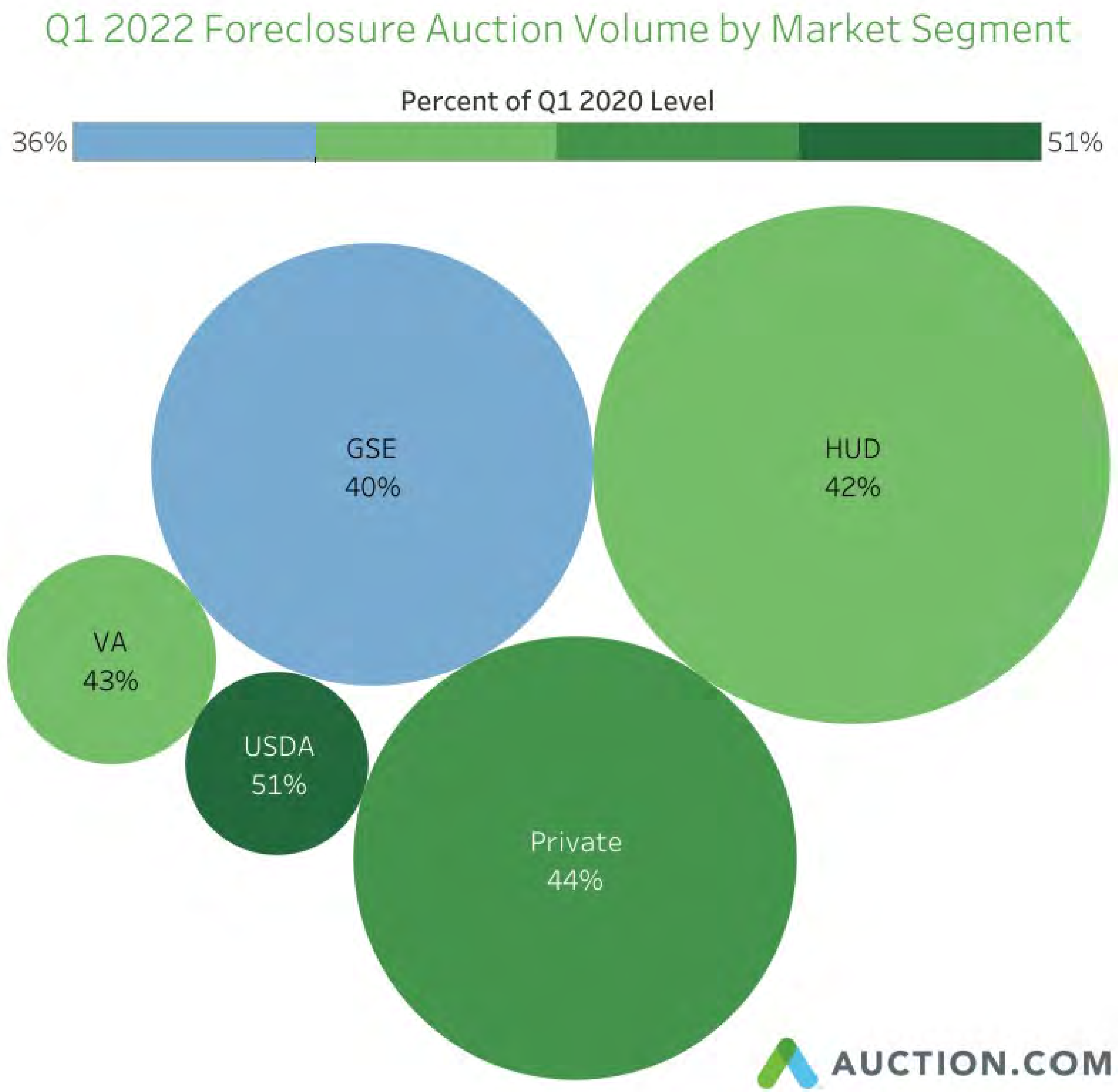
Q1 2022 Foreclosure Auction Volume by State



Source: Auction.com.

Interactive heat map

What types of foreclosures are returning the fastest?

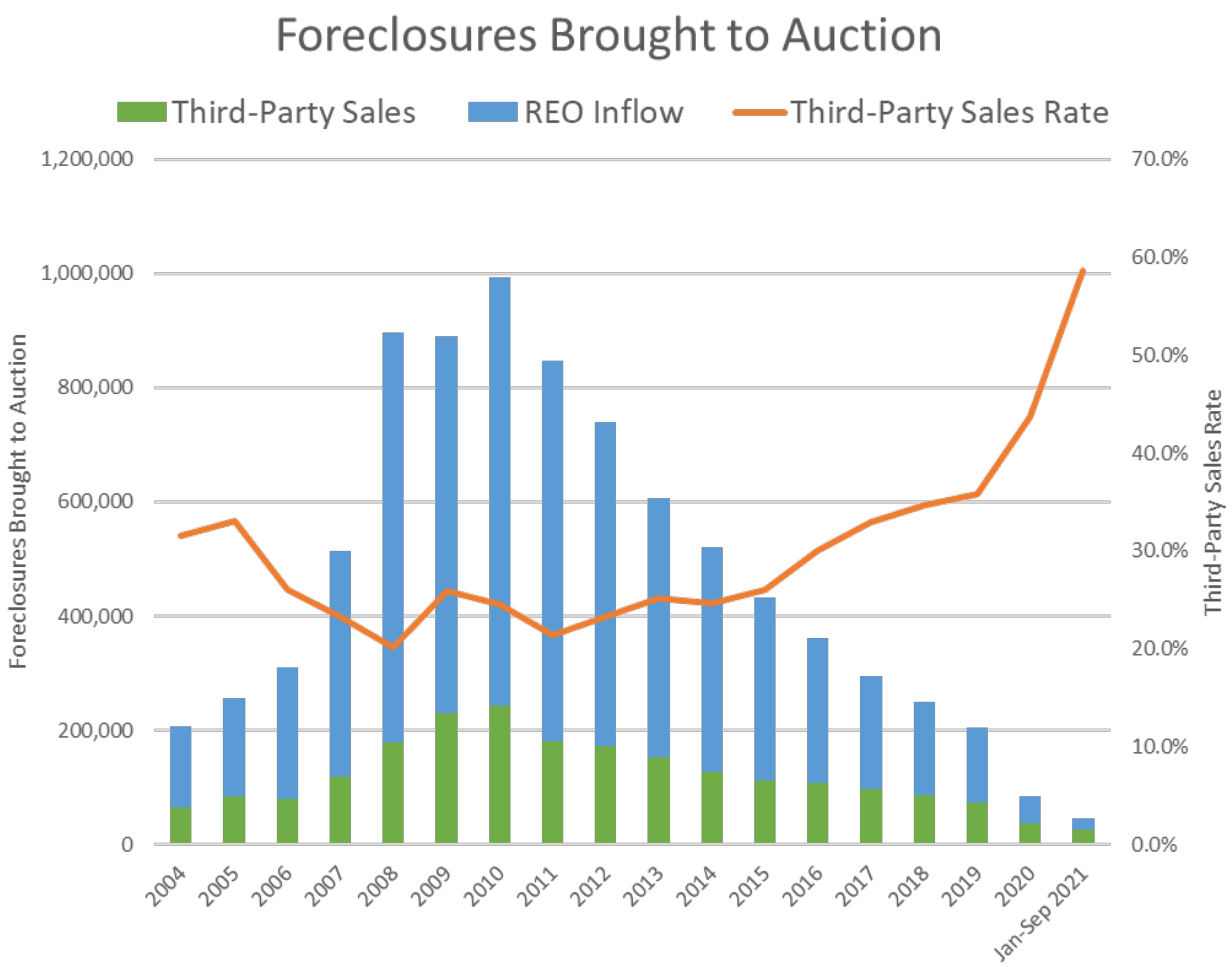


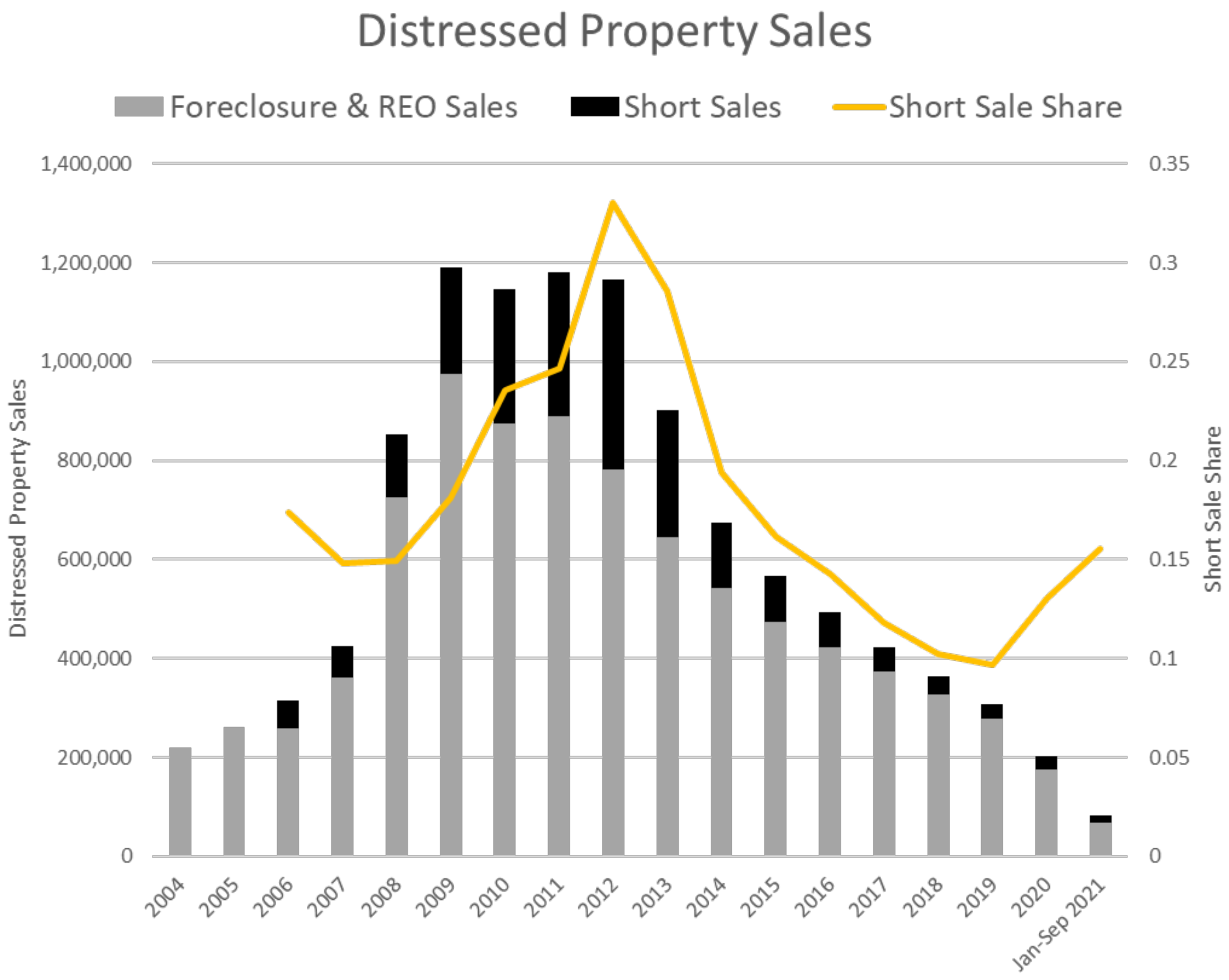
- HUD represented 30 percent of total volume
  - Up 46 percent from previous quarter
  - Up 109 percent from year ago
  - 42 percent of Q1 2020 level
- GSE represented 22 percent of total volume
  - Down 7 percent from previous quarter
  - Up 32 percent from year ago
  - 40 percent of Q1 2020 level
- Private represented 22 percent of total volume
  - Up 6 percent from previous quarter
  - Up 57 percent from year ago
  - 44 percent of Q1 2020 level
- VA represented 5 percent of total volume
  - Down 8 percent from previous quarter
  - Up 13 percent from year ago
  - 43 percent of Q1 2020 level
- USDA represented 4 percent of total volume
  - Up 15 percent from previous quarter
  - Up 29 percent from year ago
  - 51 percent of Q1 2020 level

Source: Auction.com.

What could foreclosure volume look like over the next five years?

- Nearly 1 million foreclosures brought to auction in 2010 compared to 205K in 2019 and 84K in 2020
  - Third-party sales rate steadily increased in wake of 2008 recession as foreclosure auction became more transparent; spiked during pandemic as supply dried up
- Nearly 1.2 million distressed sales (including short sales) a year from 2009 to 2012 compared to 308K in 2019 and 203K in 2020
  - Short sales accounted for 33 percent of all distressed sales at peak in 2012 compared to 10 percent in 2019. Share has increased during pandemic

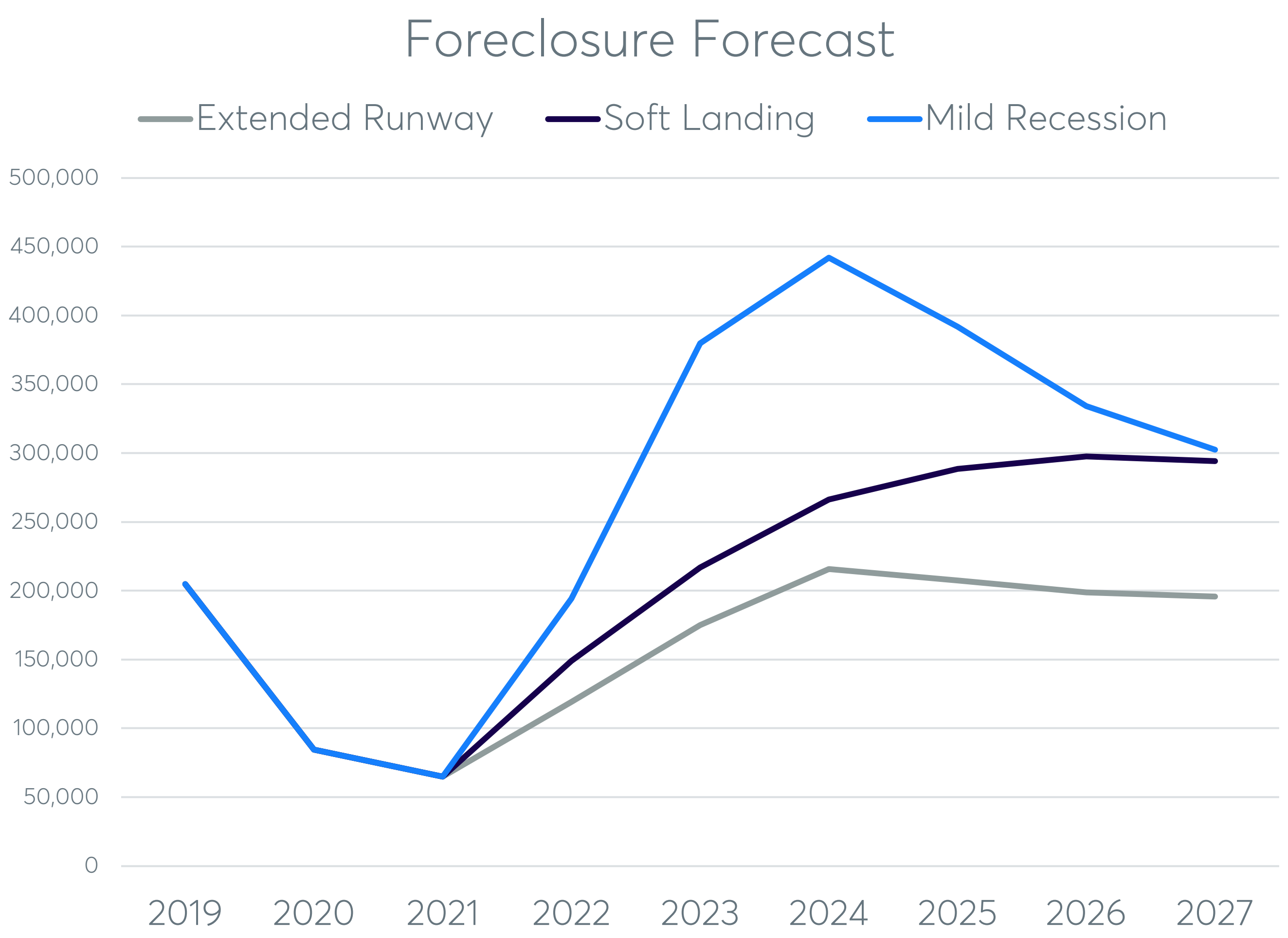


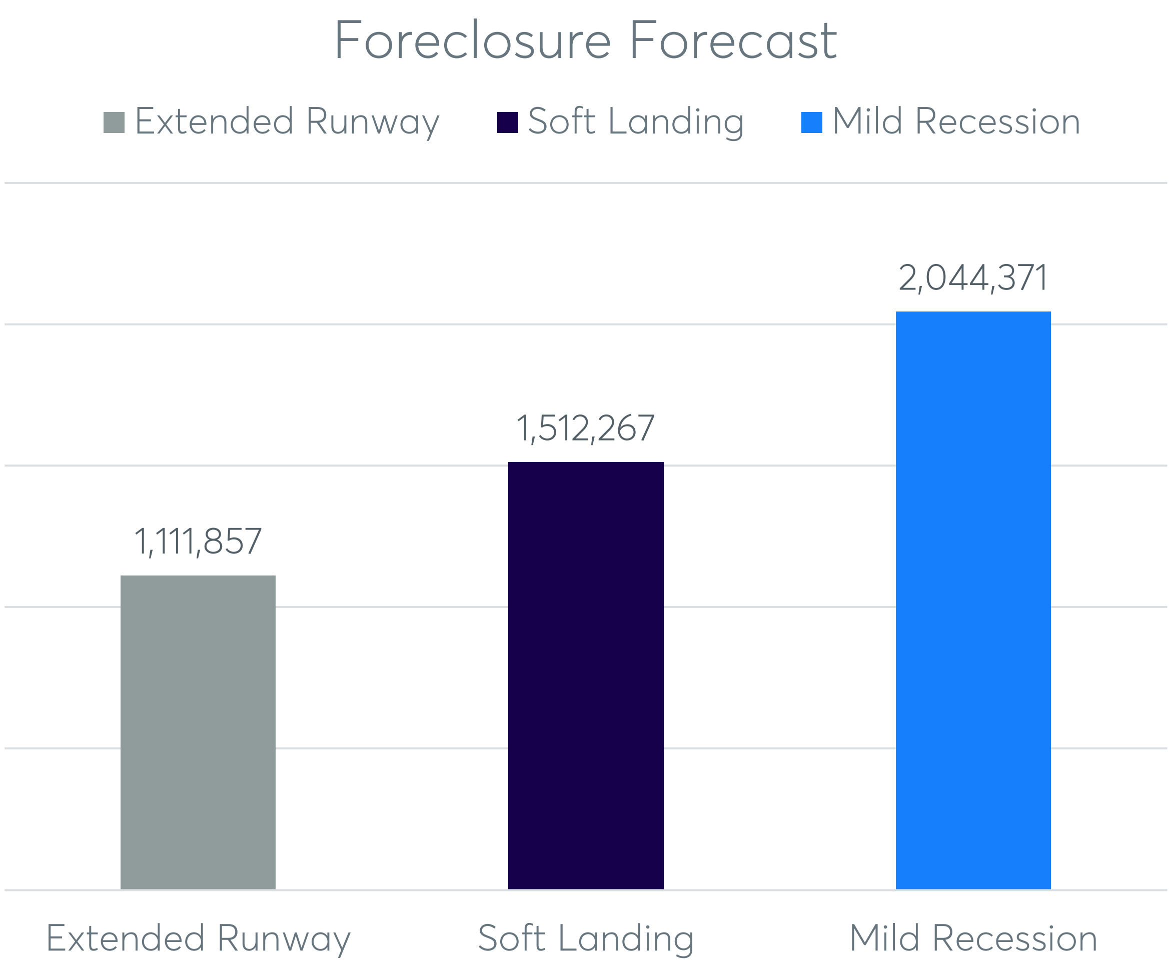


Sources: ATTOM Data Solutions,

What could foreclosure volume look like over the next five years?

- Forecast based on regression model that uses unemployment rates, GDP, home price appreciation, and mortgage rates to predict SDQ and foreclosure auction volume
  - Extended runway assumes virtually no pandemic backlog, unemployment rate staying below 4%, temporary jump in mortgage rate, and HPA staying above 5.5 percent
  - Soft landing assumes 20% of pandemic backlog returns, unemployment rates gradually rising above 4%, mortgage rates rising to 6%, HPA slowing to 4%
  - Mild recession assumes 20% of pandemic backlog returns, GDP negative in 2023, unemployment rates rise as high as 5.4%, mortgage rates rise to 6%, HPA slightly negative



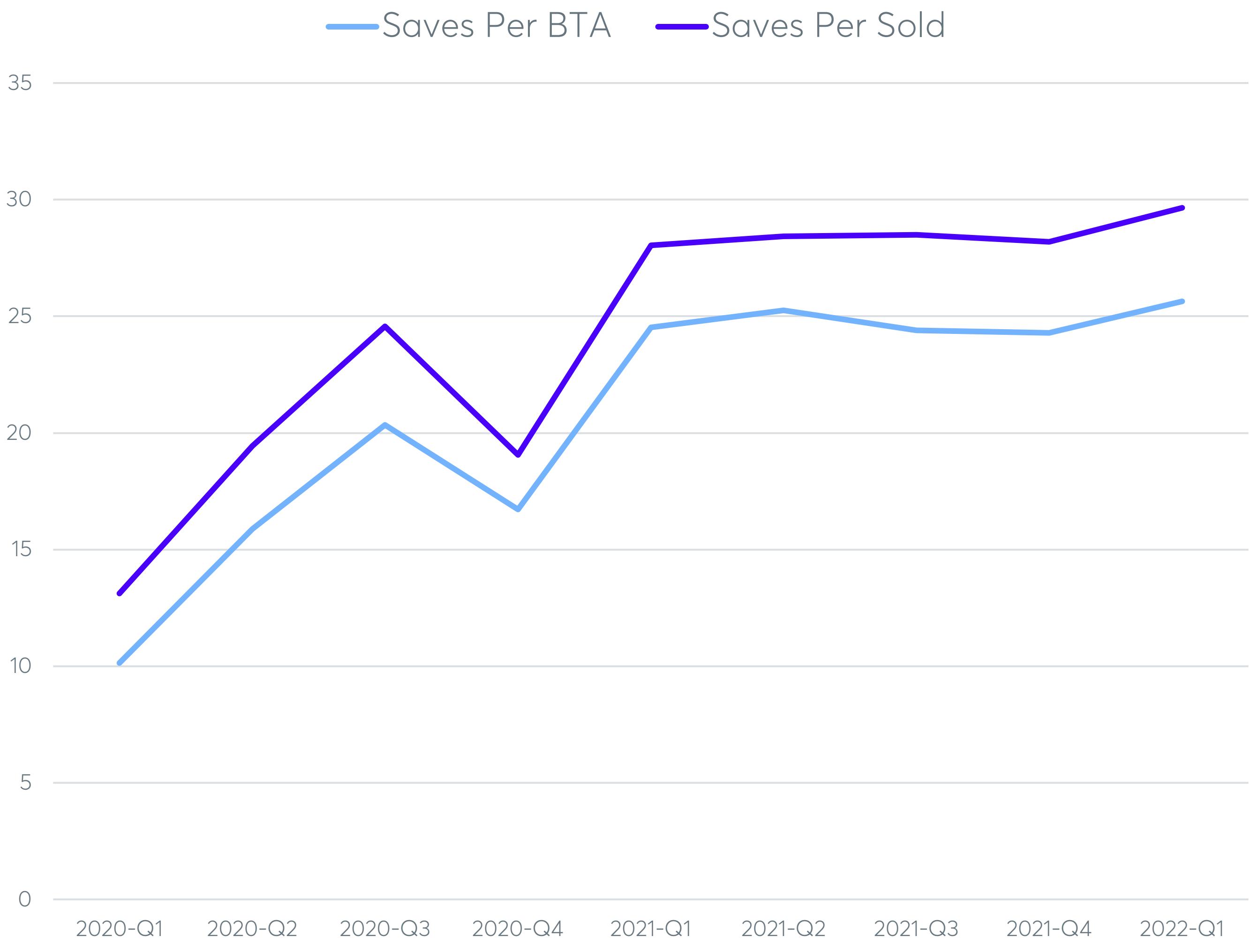


Sources: ATTOM Data Solutions, Auction.com

How is demand for distressed properties holding up?

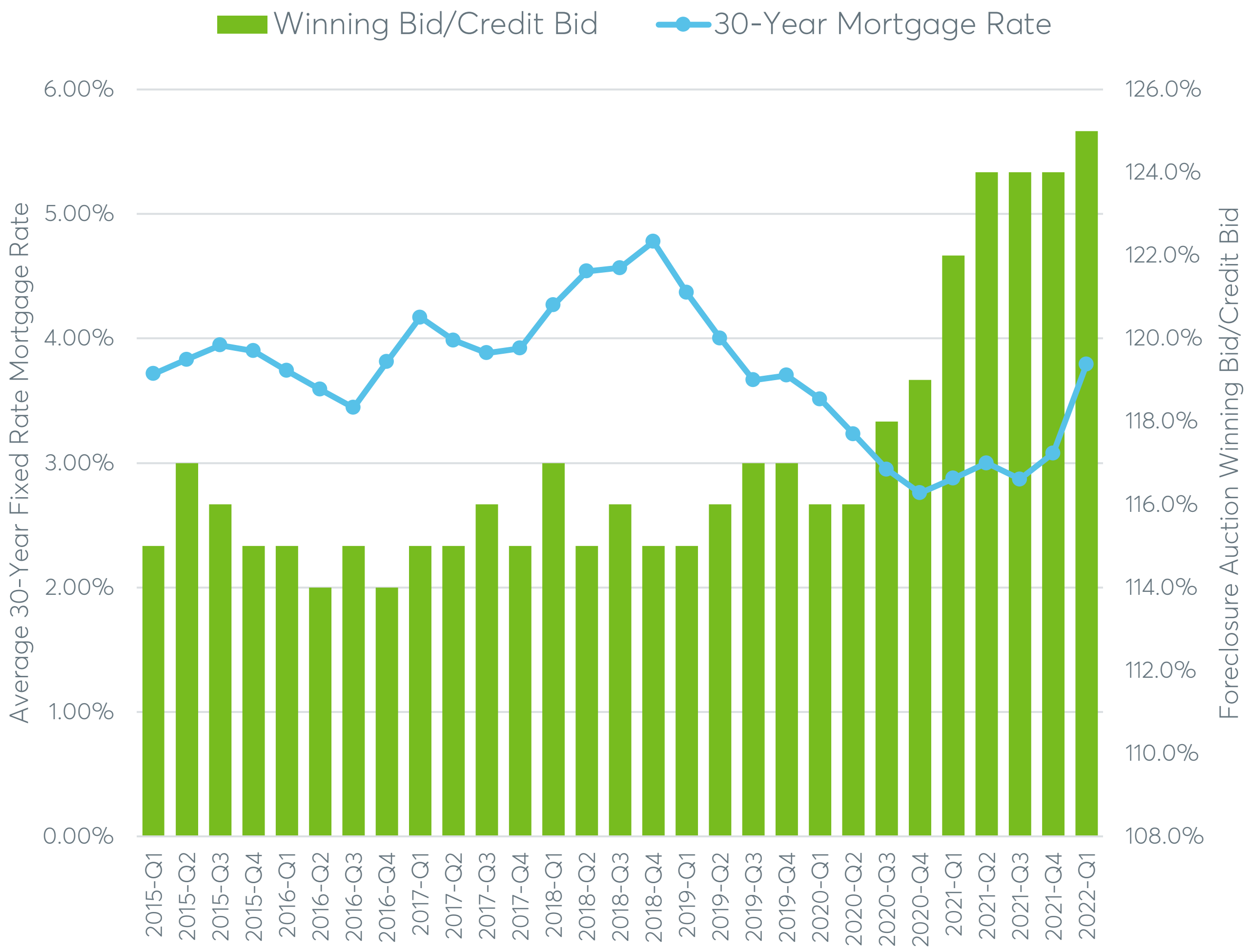
- Third-party sales rate remaining close to 60 percent even as volumes slowly return
- Demand pulled back in the second half of 2020 but quickly recovered and is now at record highs in terms of saves
- Rising mortgage rates have not yet scared off buyers – price execution at record high in Q1 2022

V-Shaped Recovery in Distressed Demand



Source: Auction.com.

Prices Still Rising as Mortgage Rates Spike

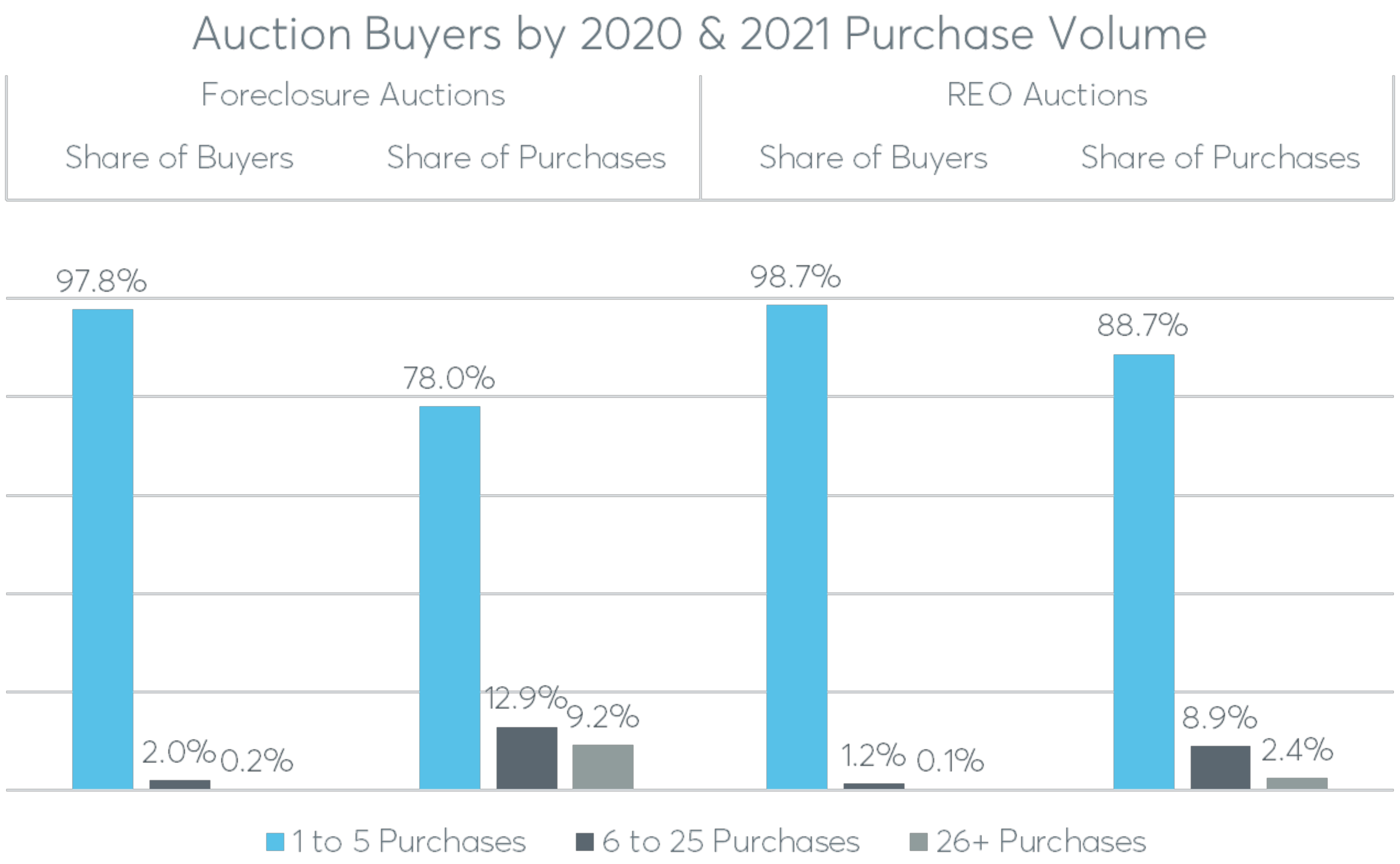


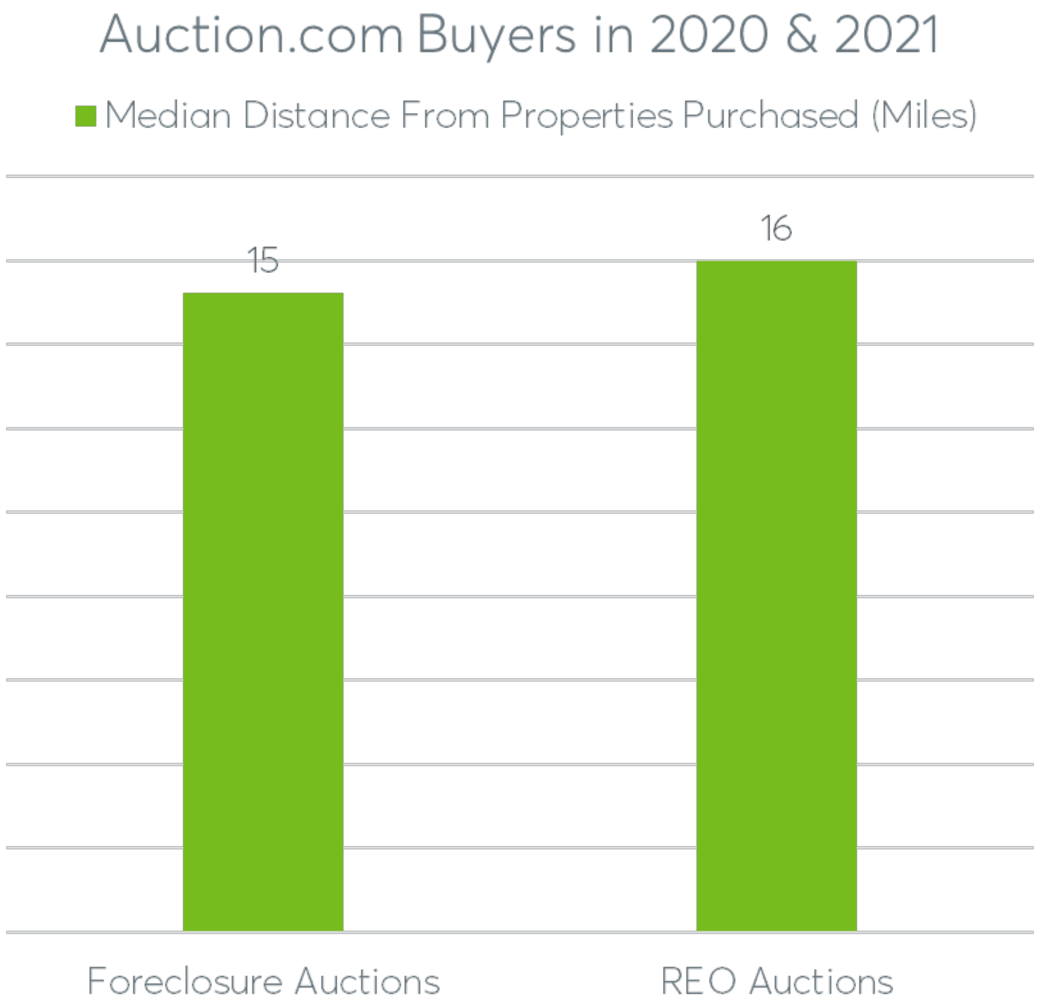
Sources: Auction.com, Freddie Mac

1. Who is buying distressed properties today?
2. How can distressed disposition prevent foreclosures & protect equity?
3. How can distressed disposition promote homeownership?
4. How can distressed disposition improve neighborhoods while preserving affordability?
5. What is a real-life example of distressed disposition that heals?

Who is buying distressed properties today?

- Individuals, not institutions
  - 98% of buyers purchased five or fewer properties in 2020 and 2021 combined. These buyers accounted for ~80 percent of all purchases
  - Less than 1 percent of buyers purchased 10+ properties in 2020 and 2021 combined. These buyers accounted for less than 10 percent of all purchases.
- Main Street, not Wall Street
  - Median distance between buyers and properties purchased was 15 miles for foreclosure auctions and 16 miles for REO auctions

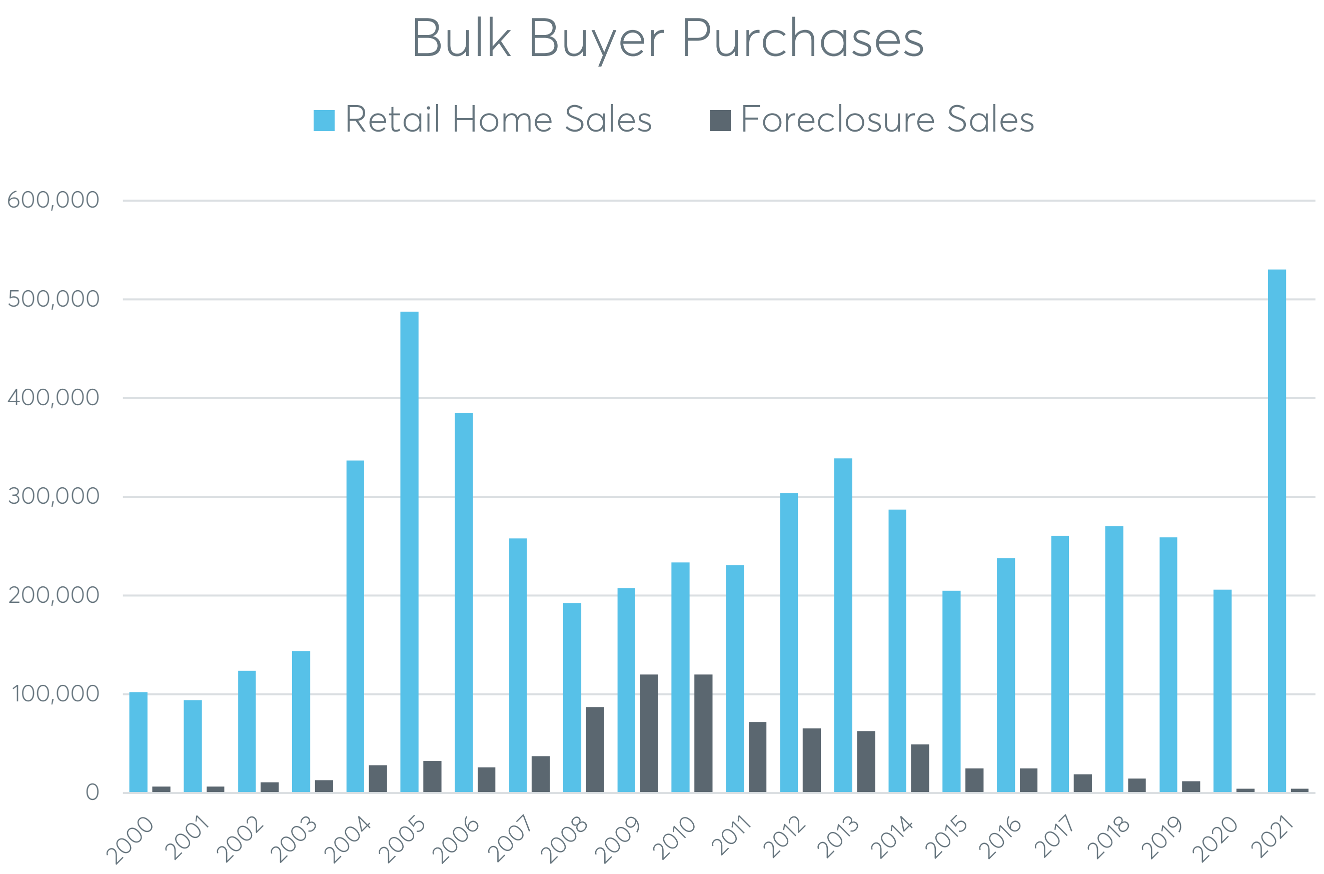




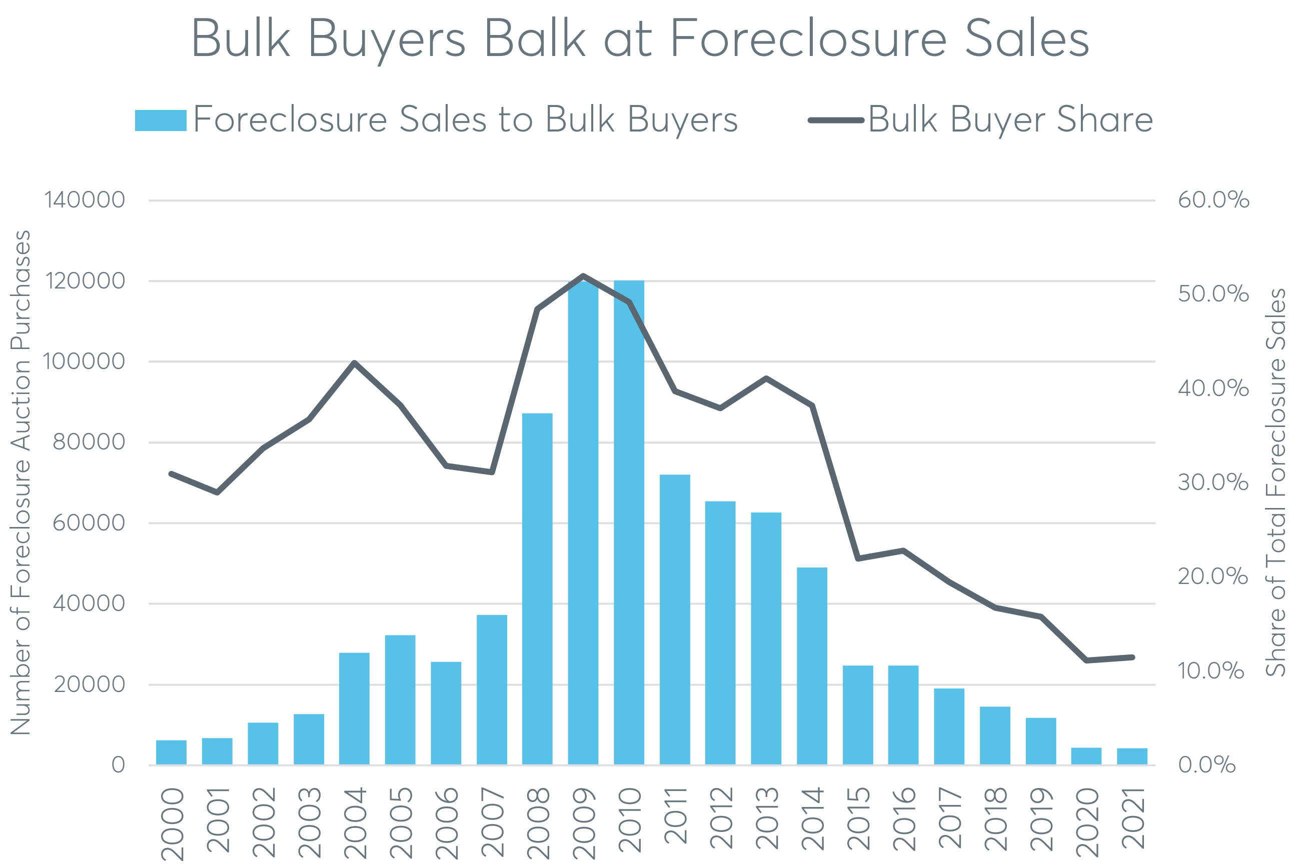
Source: Auction.com

Who is buying distressed properties today?

- Not the institutional investors who were buying in the wake of the 2008 recession
  - 52 percent of all foreclosure sales in 2009 went to "bulk" buyers purchasing at least 10 properties a year
  - 11 percent in 2021, and only 5 percent so far in 2022
- Institutional investors are gravitating to the retail market (not to mention build-to-rent)
  - More than half a million retail home sales were to "bulk" buyers in 2021, the highest for any year as far back as data is available
  - Represented 8 percent of all retail home sales in 2021, highest since 2013 (9 percent)



Source: ATTOM Data Solutions. Bulk Buyers defined as entities that purchase at least 10 properties in a calendar year



Source: ATTOM Data Solutions. Bulk Buyers defined as entities that purchase at least 10 properties in a calendar year

Source: ATTOM Data Solutions

How can distressed disposition prevent foreclosures & protect equity?

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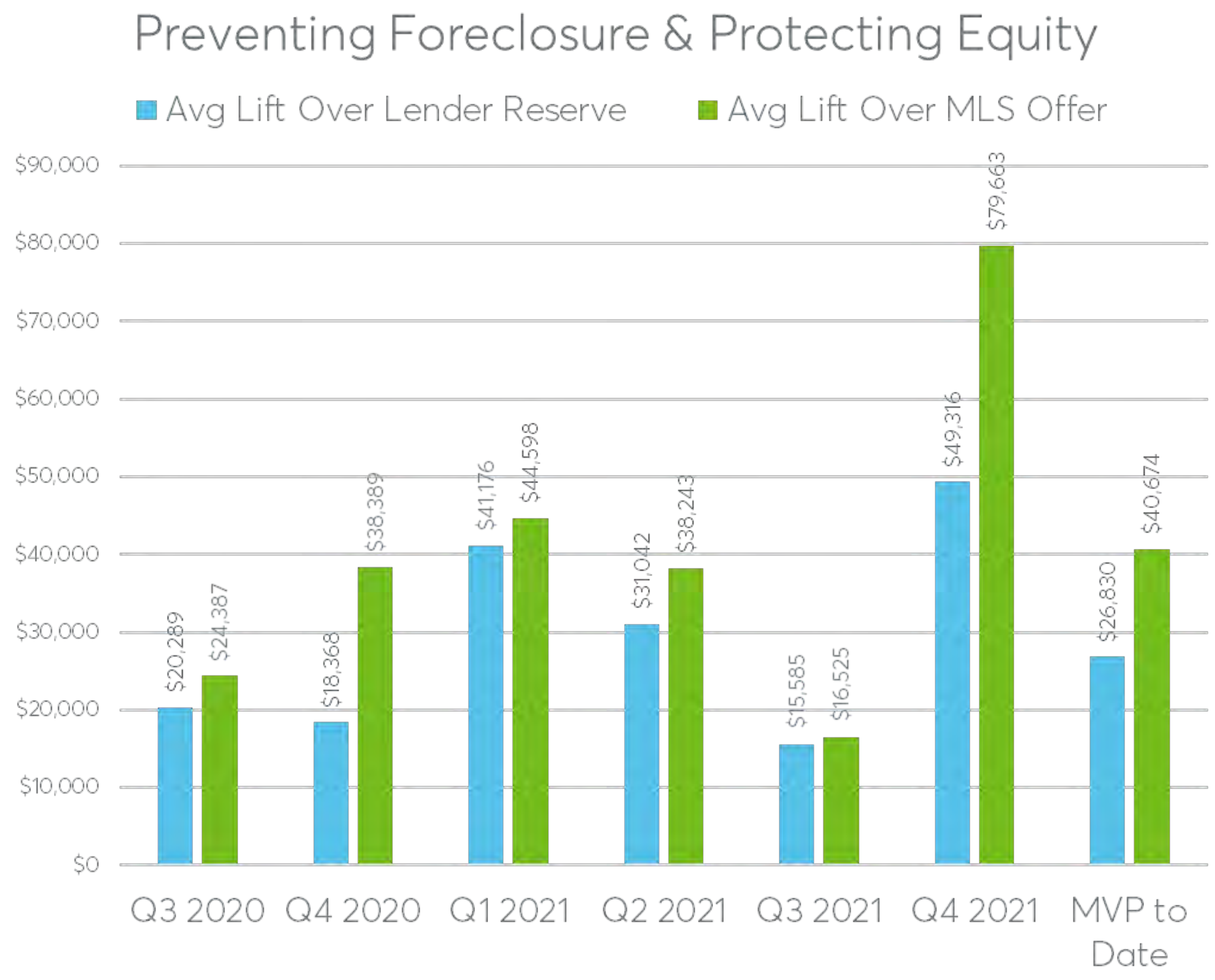
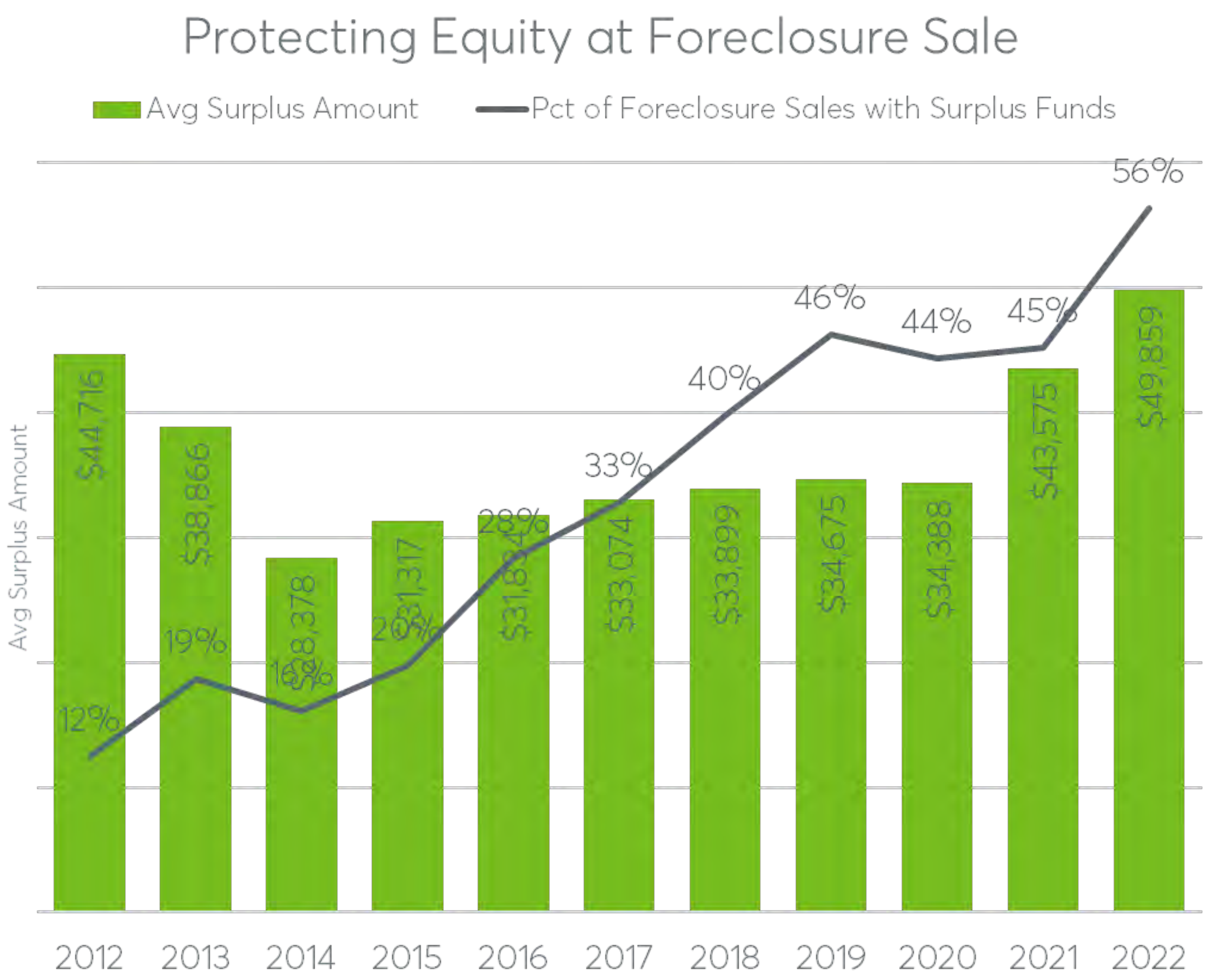
- Sell more distress via pre-foreclosure sale with an auction marketplace to validate the MLS marketplace
  - 50% had an MVP offer above MLS offer, and 39% had an MVP offer above seller reserve, indicating no need for short sale
- Make the foreclosure auction a true marketplace that attracts a broad buyer base
  - Broad marketing for foreclosure auctions and technology to allow for remote bidding
  - 56% with surplus funds so far in 2022 with average surplus of nearly $50K

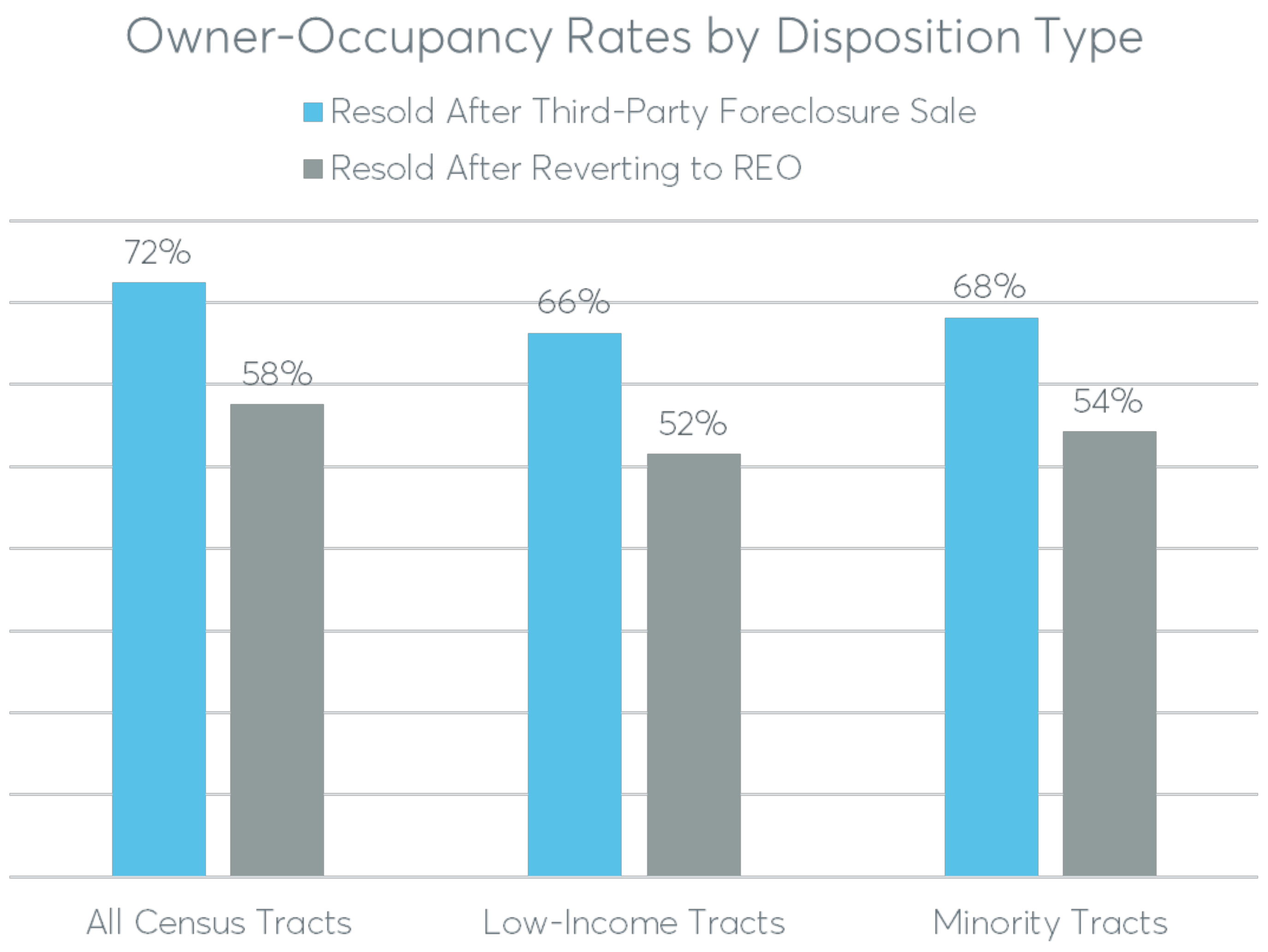


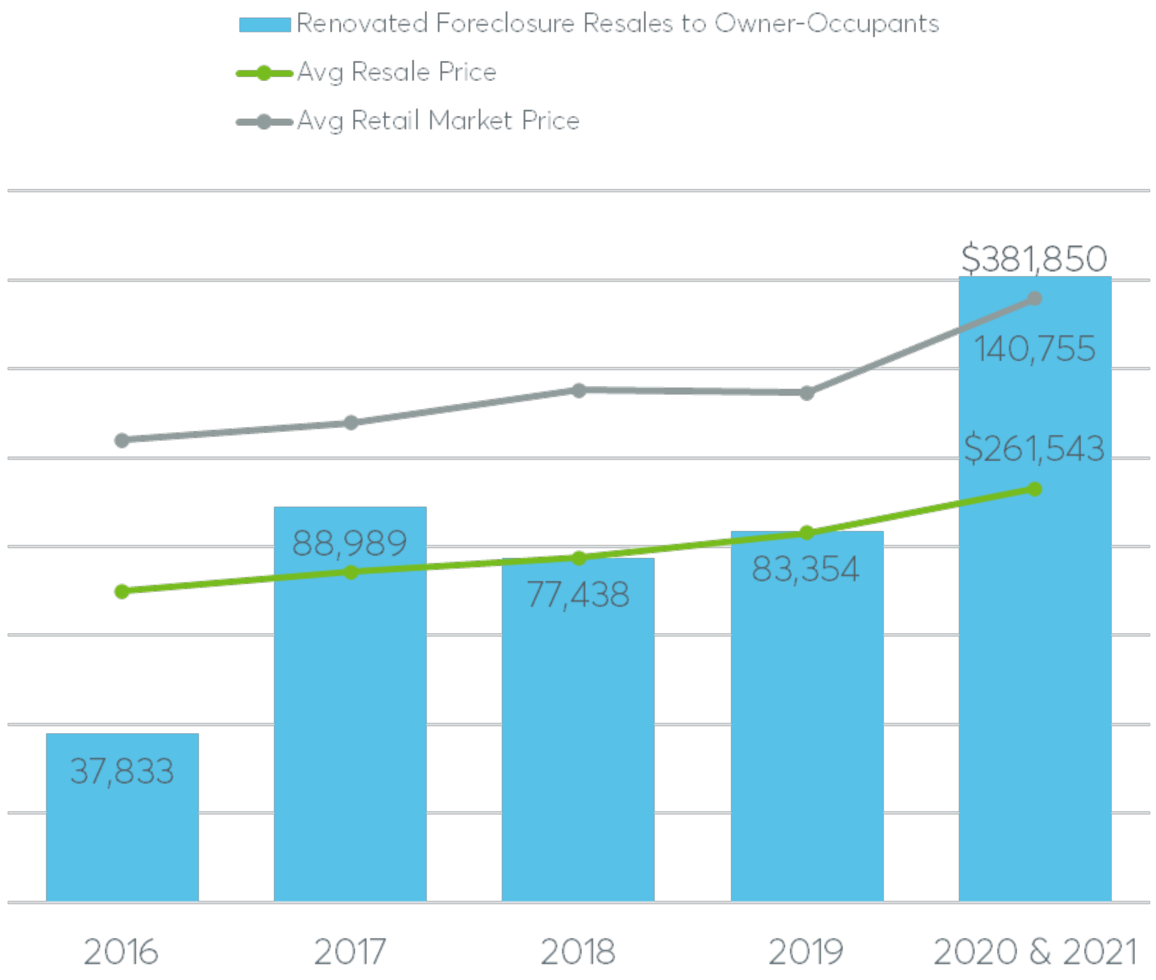


Source: Auction.com

How can distressed disposition promote homeownership?

- Sell more to local community developers at the foreclosure auction (or pre-foreclosure) and take back fewer as REO
  - 72% of resales went to owner-occupants for properties sold to third-party buyers between 2016 and 2021
  - Compared to 58 percent going to owner-occupant buyers among resales following a revert to REO at the foreclosure auction
  - An estimated 141K properties purchased by third-party buyers at the foreclosure auction have been resold to owner-occupants during the pandemic
  - Average sale price for these resales is 32 percent below average sales price for all existing home sales



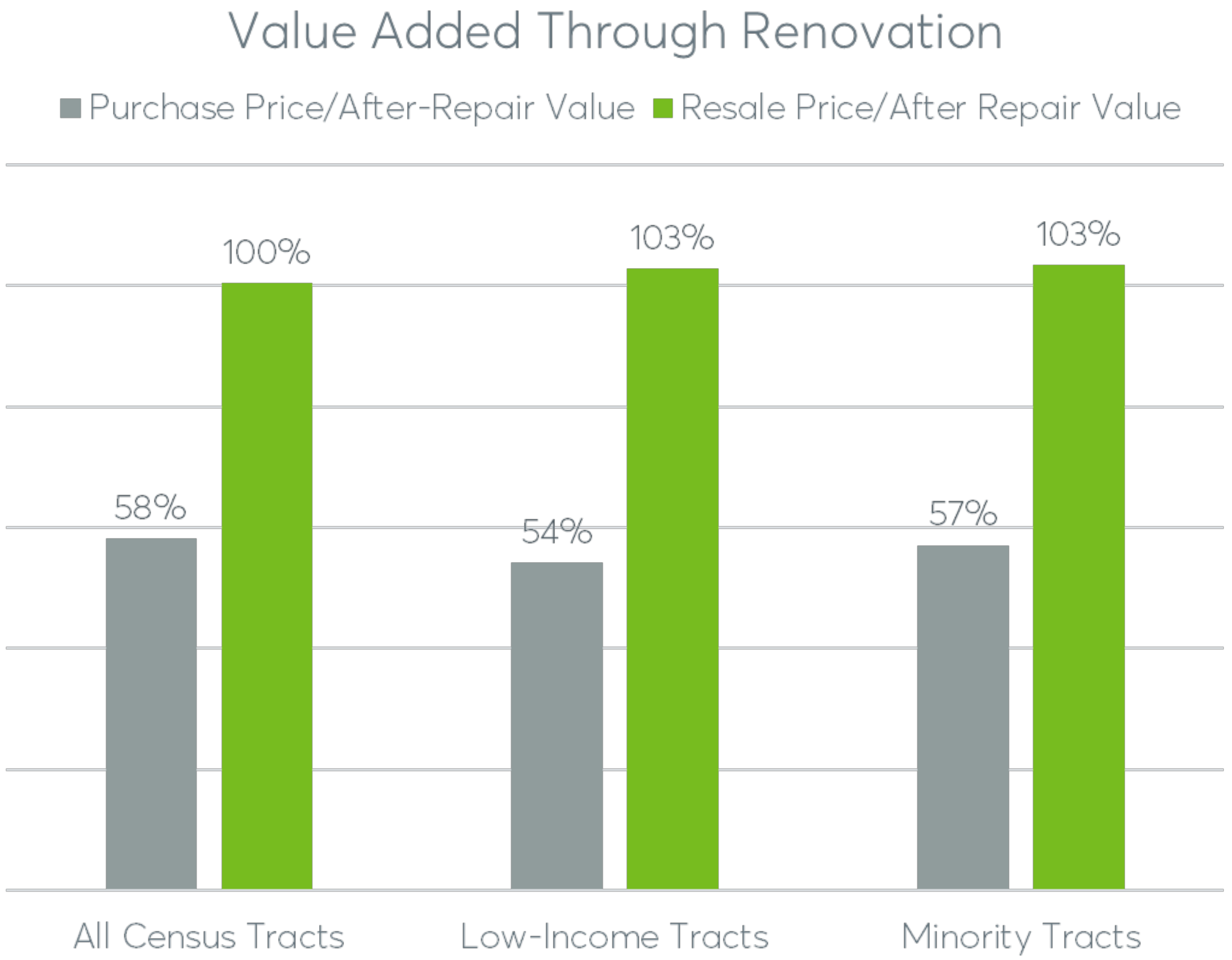


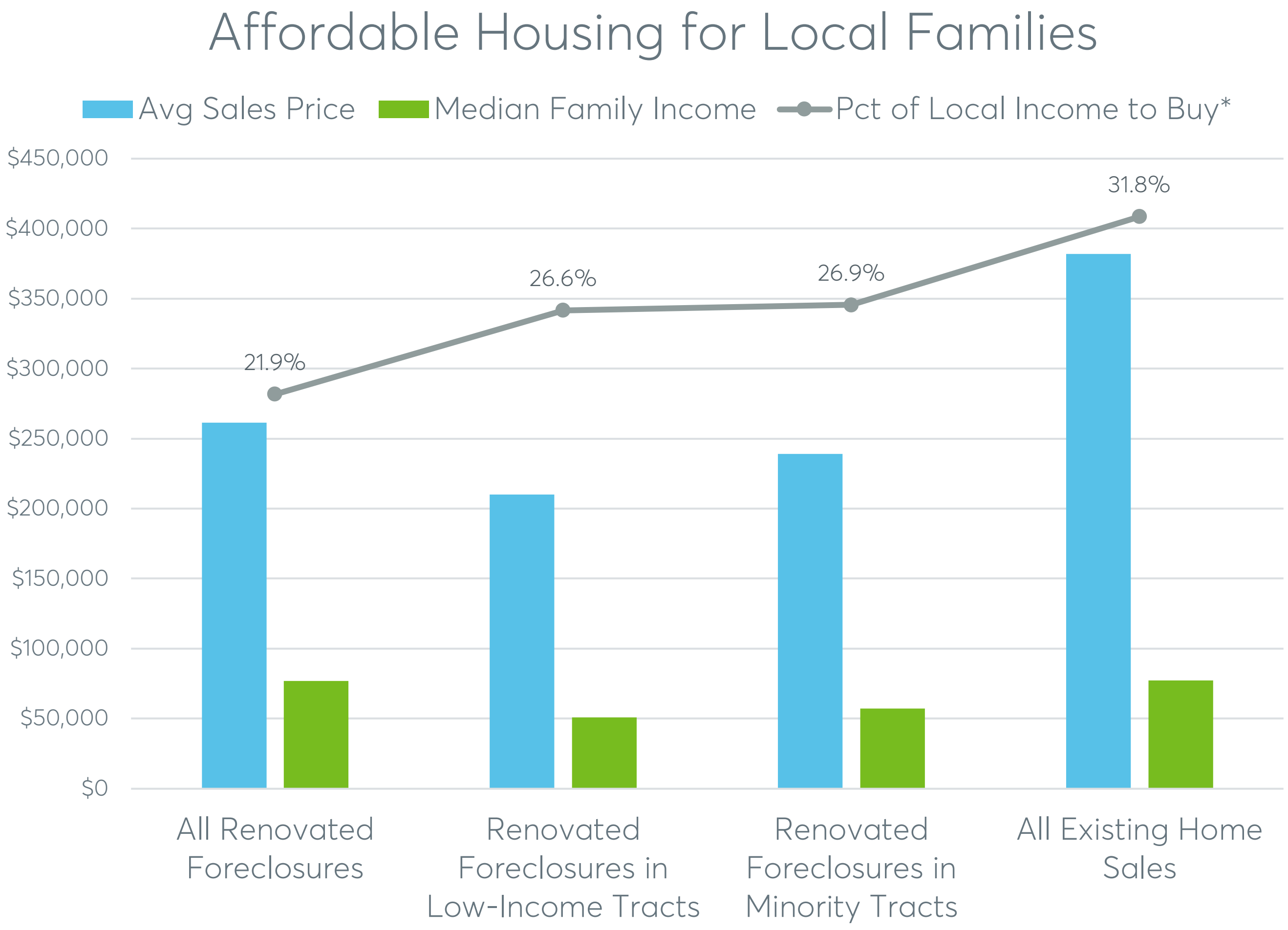
Sources: Auction.com, ATTOM Data Solutions

Sources: Auction.com, ATTOM Data Solutions, MLS.

How can distressed disposition improve neighborhoods while preserving affordability?

- Incentivize local community developers who resell to owner-occupants
- Among the foreclosure sale purchases resold to owner-occupants in 2020 and 2021
  - 42 percentage point gain in value during renovation. 49-point gain in low-income neighborhoods. 46-point gain in minority neighborhoods
  - Local families would need to spend 21.9 percent of income to purchase renovated foreclosures sold in 2020 and 2021 on average. Retail home prices would take 31.8 percent of median family income nationwide during the same period. Based on average sales prices.





*Based on median family income and average sales price in surrounding Census tract, assuming 5% down payment, 3.04% mortgage rate (actual average in 2020 and 2021) and 1.6% annually for property taxes and insurance

Sources: Auction.com, ATTOM Data Solutions, MLS.

What is a real-life example of distressed disposition that heals?

Before

After

After purchasing this suburban Connecticut, home via an online bank-owned (REO) auction on Auction.com in October 2020, Will Wenzel and his business partner took 10 months designing and renovating the property before reselling to an owner-occupant buyer in November 2021. Originally built in 1965, the property was classified as new construction when it resold in 2021 thanks to the extensive renovation, which included adding 1500 square foot to the home.

Source: Auction.com

What is a real-life example of distressed disposition that heals?

Before

After

Sue McCormick spent $40,000 renovating this property in her hometown of Dayton, Ohio, after purchasing it at foreclosure auction on Auction.com in December 2020 for $39,000. Renovations included a new roof, new subfloors and floors, a completely redone kitchen and bathroom, and the addition of a third bedroom. She sold the property, located in a low-income Census tract, to an owner-occupant buyer in October 2021 for $140,900. Assuming a 5 percent down payment, a mortgage rate of 3.07 percent and 1.5 percent of the purchase price annually for property taxes and insurance, the monthly payment on that property would represent 22.9 percent of the median family income of $39,621 in the surrounding neighborhood.

Source: Auction.com

What is a real-life example of distressed disposition that heals?

Before

Atlanta-area Auction.com buyer Tony Tritt spent about $135,000 renovating this Carroll County, Georgia, property that he purchased at foreclosure auction via Auction.com in March 2021 for $69,500. He resold the property, located in a low-income Census tract, to an owner-occupant buyer in February 2022 for $214,900. Mortgage payments on that home would represent 24.6 percent of the median family income of $60,109 in the surrounding Census tract, assuming a 30-year fixed mortgage with a rate of 3.76 percent (average rate in February), a 5 percent down payment and 1.5 percent of the purchase price annually for property taxes and insurance.

After

Source: Auction.com