Research in Brief

COVID-19 and Loan Performance: A Focus on Manufactured Housing and Duty to Serve High-Needs Rural Regions

Research by: Astou Aw, Lariece Brown, Ashley Karetnikova

Executive summary by: Sharon Oestreicher

Freddie Mac
SINGLE-FAMILY

Research in Brief

COVID-19 and Loan Performance: A Focus on Manufactured Housing and Duty to Serve High-Needs Rural Regions

Financial burdens became heavier for many households with the outbreak of COVID-19 and the coronavirus pandemic because of employment cutbacks and rapidly rising inflation, leaving many homeowners struggling to meet their mortgage obligations. The extent to which homeowners were affected varied by geography and by property type.

Although the pandemic's effects on housing markets have been studied, little of the research has focused on rural areas and manufactured housing. Rural areas encompass 94% of our country's landmass and are home to almost 20% of the population.1[1] Today, about 22 million people live in manufactured homes, and around half of those homes are in rural areas. However, this type of home is gaining popularity – particularly among Millennials and younger generations – and an important part of helping to shrink the housing supply gap, increase home energy efficiency, and use construction resources more efficiently.

To fill this information gap, Freddie Mac conducted a quantitative analysis to assess the effect of the pandemic on manufactured home mortgage forbearances and delinquencies. This study also highlights the effect on loan performance in Rural America and identifies factors that influence the probabilities of forbearance and delinquency.

Having deeper insights into the impacts on these homeowners and in these areas will further understanding of potential ways to help mitigate negative impacts in the future.

Key Findings

Our analysis of data on loans between first quarter 2015 and first quarter 2022 revealed several meaningful findings.

The likelihood that any loan would be in forbearance and delinquency during the pandemic period (first quarter 2020 through first quarter 2022) was higher than in the pre-COVID period (first quarter 2015 through fourth quarter 2019).

- There were no statistically significant differences in the overall likelihoods of any loan being in forbearance in areas defined as high-needs rural regions under the Duty to Serve rule and metropolitan areas during the pandemic period.
- Loans in high-needs rural areas and other rural regions had a greater chance of delinquency than those in metro areas.
- Eligibility for and access to information about housing-cost relief programs enacted during the pandemic to help stem forbearances and delinquencies could have been a significant factor in loan performance.

1 U.S. Census Bureau; "One in Five Americans Live in Rural Areas"; August 9, 2017.

- When analyzing the data by property type:
  - Owners of manufactured homes had a lower probability of being in forbearance than site- built homeowners had when we controlled for loan and borrower characteristics.
  - Although delinquency rates were higher for manufactured home loans during the pandemic period than for site-built home loans, manufactured home loans had a lower probability of delinquency than site-built home loans when we controlled for loan and borrower characteristics. Interestingly, manufactured homeowners' lower probability of forbearance did not translate into higher chances of delinquency.
- When further analyzing the data by geography as well as property type:
  - Manufactured home loans in high-needs rural regions had lower probabilities of being in forbearance and delinquency during the pandemic period than did site-built home loans.
  - Loans in high-needs rural regions and other rural areas had higher probabilities of delinquency than loans in metro areas.

Our Methodology

For this study, we used data from the National Mortgage Database (NMDB®) Version 18, which contains a random sample representing one in 20 U.S. residential mortgages, according to the Federal Housing Finance Agency (FHFA). We assessed loan performance in two defined time periods: pre-COVID (from first quarter 2015 to fourth quarter 2019) and during COVID (from first quarter 2020 to first quarter 2022). We considered these main variables associated with each loan: whether the loan was in forbearance or delinquency, geography, and property type (manufactured home vs. site-built home). Geographies are based on census tracts and fall into two main categories: rural regions and metropolitan areas. We further divided rural regions into high-needs rural regions and persistent poverty areas as defined in the Duty to Serve rule and all other rural regions.[2] Metro areas comprise all non-rural regions.

We also considered a range of characteristics related to the loans and the primary borrowers contained in the NMDB dataset.

Following is a high-level summary of our findings.

2 See FHFA's Duty to Serve Eligibility Data web page for definitions of rural areas and high-needs rural regions. NMDB Version 18 includes the 2017 Community Development Financial Institution (CDFI) Fund persistent-poverty counties.

Findings Highlights

Through our analysis, Freddie Mac revealed some fresh perspectives as well as confirmed some previous research findings. Our findings also help dispel certain misperceptions, such as the long-held belief that loans on site-built homes perform significantly better than those on manufactured homes.

Forbearance Rates Jumped but the Extent Varied by Property Type and Geography

Overall, the percentage of loans in forbearance was 20 times higher during the COVID period than pre- COVID, although the percentage of loans affected remained small, as shown in the following table. At their peak in second quarter 2020, forbearances on site-built home loans had climbed to 3.33%; on manufactured homes, they reached 1.65%.

Sorting by property type, we found that the percentage of loans in forbearance was slightly lower for manufactured homes.

Property Type	Forbearance Rate Pre-COVID (1Q 2015-4Q 2019)	Forbearance Rate during COVID (1Q 2020-1Q 2022)
Site-built Homes	0.05%	1.05%
Manufactured Homes	0.04%	0.80%

Several factors may have fed into the differences in loan performance. For instance, the housing-cost relief programs enacted to help stem loan forbearances and delinquencies in some cases excluded manufactured homes or placed more stringent qualification criteria on them than on site-built homes. Moreover, some owners of manufactured homes may have lacked access to information about the resources available and, therefore, may not have known about forbearance opportunities. About 65% of those homeowners in our dataset live in rural areas, where digital resources tend to be less accessible. This situation highlights the vital role of nonprofit housing intermediaries that offer counseling to homeowners who are struggling financially. (Freddie Mac supports 15 Borrower Help Centers nationwide and a call-in Borrower Help Network, staffed with housing counselors certified by the U.S. Department of Housing and Urban Development, to assist potential homebuyers and homeowners in attaining and sustaining homeownership responsibly.)

Metro areas may have experienced higher forbearance rates early in the pandemic because they were affected first. Loan amounts and payment-to-income ratios (PTIs) also may have played a role: Both were smaller in rural areas.

In assessing forbearances by geography, we found that forbearance rates again were similarly very low before the pandemic and increased by similar percentages during it, as shown in the following table. Forbearance rates in all three regions peaked in second quarter 2020. Metro areas recorded a high of about 3.60%; the high was 1.65% in high-needs rural areas and 1.22% in other rural regions.

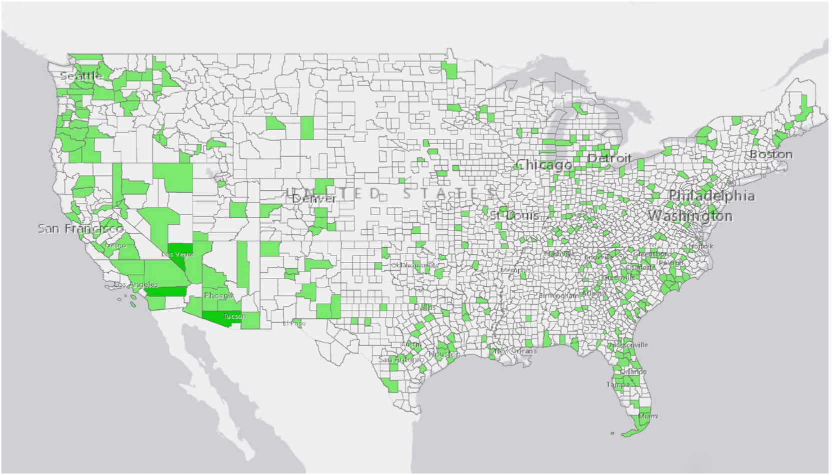
Geography	Forbearance Rate Pre-COVID (1Q 2015-4Q 2019)	Forbearance Rate during COVID (1Q 2020-1Q 2022)
Metropolitan Areas	0.05%	1.10%
High-needs Rural Regions	0.06%	1.14%
Other Rural Regions	0.04%	0.80%

Metro areas may have experienced higher forbearance rates early in the pandemic because they were affected first. Loan amounts and payment-to-income ratios (PTIs) also may have played a role: Both were smaller in rural areas. Moreover, as previously noted, rural areas contain 65% of the manufactured home loans in our dataset, and the loan amounts and forbearance rates are lower for these homes.

However, property type and geography are only two of many factors that influence the likelihood of a loan entering forbearance. We used modern statistical analysis tools to estimate more accurately the relationship between property type and the probability of being in forbearance during the pandemic, controlling for a set of influencers that also impact forbearance.

As a result, we found that the probability of any loan being in forbearance was 1.4% higher during the pandemic period. Comparing the probability for each property type, loans on manufactured homes were 1.1% less likely to enter forbearance than were loans on site-built homes. In other words, if a site-built home loan had a 40% chance of being in forbearance, a manufactured home loan would have a 38.9% chance. Comparing the probability by geography, loans in metro areas and high-needs rural regions had the same likelihood. Within high-needs rural regions, however, manufactured home loans were slightly less likely to be in forbearance than site-built home loans.

Count of Manufactured Home Loans in Forbearance during Covid



No Forbearance | Up to 20 Forbearances | More than 20 Forbearances

Freddie Mac also considered county-level data to gain insight into where forbearances were highest for manufactured home loans. As shown in the following map, forbearances during the pandemic on those types of loans were concentrated in the West (Arizona, California, Nevada, Oregon, Washington) and the South (Florida, North Carolina, South Carolina, Texas). They also were elevated in Indiana.

Delinquencies Varied More by Property Type but Controlling for Other Factors Changed the View

Next, we analyzed loan delinquencies of at least 90 days. In the pre-COVID period from first quarter 2015 to the end of 2019, the delinquency rates were close for loans on site-built homes and manufactured homes, as shown in the following table. Although the forbearance rate during the pandemic period was lower for manufactured home loans, the opposite was true of delinquency rates of 90 days or more. Once certain variables are accounted for, however, the difference is not as large as it seems on its face.

Property Type	Forbearance Rate Pre-COVID (1Q 2015-4Q 2019)	Forbearance Rate during COVID (1Q 2020-1Q 2022)
Site-built Homes	0.058%	0.50%
Manufactured Homes	0.80%	2.72%

Why might have the delinquency rate surged for manufactured home loans? Many owners of these types of homes work in industries that suffered the most job losses during the pandemic, such as food services and accommodations, retail, construction, entertainment, and other services. Another significant factor in the manufactured home loan delinquency rate may have been differences in who was eligible for and took advantage of housing-cost relief programs, including the

Homeowner Assistance Fund (HAF) as well as the programs defined in the Coronavirus Aid, Relief, and Economic Security (CARES) and the Health and Economic Recovery Omnibus Emergency Solutions (HEROES) acts. As noted previously, owners of site-built homes benefited the most from those programs.

Viewing the data by geography, delinquency rates before the pandemic were similarly low in metro areas and other rural areas, as shown in the following table. They were slightly higher in high-needs rural regions; this higher rate may at least partly be explained by the traditional economic disparities that these areas experience compared to other areas. During the pandemic period, delinquency rates rose in high- needs rural regions and other rural areas; they declined slightly in metro areas.

Geography	Forbearance Rate Pre-COVID (1Q 2015-4Q 2019)	Forbearance Rate during COVID (1Q 2020-1Q 2022)
Metropolitan Areas	0.56%	0.47%
High-needs Rural Regions	0.86%	0.93%
Other Rural Regions	0.57%	0.61%

IInterestingly, looking at delinquency rates by quarter, they decreased in all geographies during the pandemic until second quarter 2021. This initial decrease may have related to reporting; loans with relief under the CARES Act were not reported as delinquent if they were not delinquent before entering forbearance.

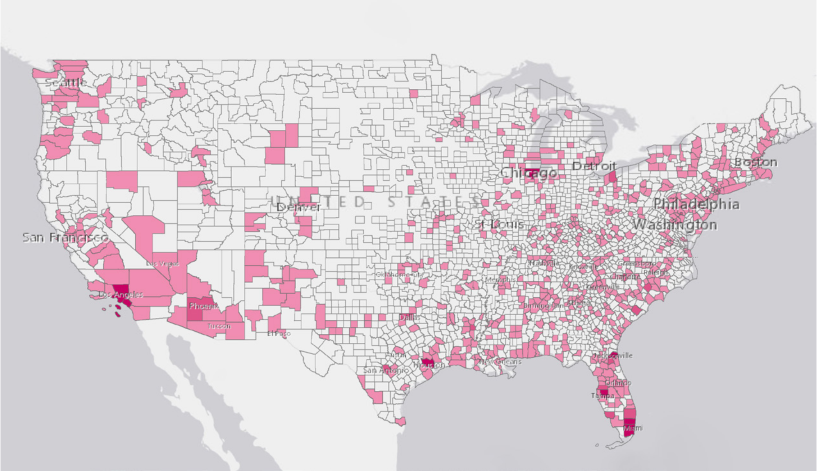
As with forbearance, factors besides property type and geography affect the likelihood of a loan being delinquent by 90 days or more. We again used modern statistical analysis tools to estimate more accurately the relationship between property type and the probability of a loan being delinquent during the pandemic, controlling for a set of influencers that also impact delinquency

The results were surprising. Loans on both site-built and manufactured homes were more likely to be 90 or more days delinquent during the pandemic. However, manufactured home loans were in fact 0.3% less likely than site-built home loans. In addition, the probability of any loan being delinquent was slightly higher in all rural areas than in metro areas. Manufactured home loans in high-needs rural regions were slightly less likely to become delinquent than site-built homes there.

In rural areas, the traditional challenges of less economic opportunity and lower incomes may have driven delinquencies higher than in metro areas. Some of the other variables that factored into lower probability of a loan becoming delinquent for at least 90 days overlapped to an extent with those that moderated forbearances.

For additional insight into delinquency rates for manufactured home loans during the pandemic, we again analyzed the data at the county level. As shown in the following map, the greatest number of delinquencies on manufactured home loans were in the East (Maryland, New York, Pennsylvania), West (California), Midwest (Illinois, Kentucky, Ohio), and South (Alabama, Georgia, Louisiana, North Carolina, South Carolina, Texas, Virginia). Los Angeles County, California, had the most manufactured home loan delinquencies. Regarding site-built home loans, Cook County, Illinois (Chicago and its near suburbs) experienced the most delinquencies.

Count of Manufactured Home Loans 90+ Day Delinquencies during Covid



No Delinquency | Up to 20 Delinquencies | 21 to 40 Forbearances | ~40 Forbearances

Source: Freddie Mac calculations using NMDB Version 18.

A Final Note

Freddie Mac's research highlights the importance of loan and borrower characteristics in loan performance by geography and by property type. However, more research is needed into the causal impact of property type and geography on loan performance and to account for potential linkages between the likelihoods of forbearance and delinquency.

Additional Resources

Freddie Mac compiled a range of materials into a "toolkit" to furnish industry professionals with background on the manufactured housing market environment, strengths and challenges related to expanding the use of manufactured housing, and Freddie Mac's support for this important housing option. Use them to deepen your market knowledge. Use them to prepare for conversations with others about manufactured homes as an attractive option and an important source of affordable housing, particularly considering our severe nationwide shortage of homes. Find the resources on FreddieMac.com at Manufactured Housing Opportunities for Growth.