Characteristics of Mortgage Borrowers During the COVID-19 Pandemic: Evidence from the National Mortgage Database

Greta Li
David Low
Judith Ricks*
Consumer Financial Protection Bureau, Office of Research

**Authors are affiliated with the Consumer Financial Protection Bureau, Office of Research. Corresponding author contact: judith.ricks@cfpb.gov. The views expressed in this paper do not represent the views of the Consumer Financial Protection Bureau or the United States.*

Abstract

Using a nationally representative sample of first-lien mortgages, this article analyzes borrower and mortgage characteristics of borrowers that were in forbearance during the COVID-19 pandemic. The analysis shows that Black and Hispanic borrowers were severely overrepresented among borrowers in forbearance compared with their representation in the overall sample. This article also sheds light on the potentially difficult financial circumstances of borrowers that entered into forbearance, especially those who remained in forbearance after the expiration of CARES Act protections. The analysis provides a descriptive baseline that is useful for understanding the effects of pandemic mortgage policy on borrower transitions out of forbearance programs.

Introduction

The COVID-19 pandemic created widespread and severe financial hardship among homeowners. Almost 8 million homeowners took advantage of mortgage forbearance programs designed to provide financial relief over the course of the pandemic (Black Knight, Inc., 2022). Forbearance programs, such as those provided under the Coronavirus Aid, Relief, and Economic Security Act (CARES Act) in March 2020, allowed many borrowers to take forbearances for reasons related to the COVID-19 pandemic for periods lasting up to 18 months.[1] A significant number of homeowners have transitioned out of those forbearances over the past year due, in part, to improving economic conditions and the expiration of protections under the forbearance programs for many loans beginning in the fall of 2021. Given these changes, the goal of this article is to better understand the characteristics of borrowers who remain in forbearance.

Using data from the National Mortgage Database (NMDB®),[2] this article reports on the characteristics of mortgage borrowers during the COVID-19 pandemic. The NMDB is a random 1-in-20 sample of closed-end first-lien mortgages in the United States that provides rich detail on the borrower's account status and characteristics. The account status in the NMDB is based on credit record data (Durbin et al., 2021).[3] The authors analyze borrower demographics and loan characteristics for a sample of open mortgages from March 2021 and a second sample from January 2022. For more details on these samples, see Durbin et al. (2021) and Li and Ricks (2022). Overall, the January 2022 sample of borrowers had a forbearance rate of 1.3 percent,[4] compared with 4.7 percent in the March 2021 sample.

First comes a discussion on the changes in forbearance rates between March 2021 and January 2022. The share of mortgages in forbearance fell significantly for both minority and non-minority borrowers between March 2021 and January 2022. Decreases in the rate of forbearance were relatively larger for non-White than for White borrowers, with the largest decreases occurring among Hispanic and other-race borrowers.

Then, this article examines the cross-sectional differences in borrower characteristics. In the January 2022 sample, Black and Hispanic borrowers were overrepresented among those in forbearance. Black and Hispanic borrowers accounted for a combined 31.2 percent of forbearances while accounting for only 18.2 percent of the overall sample of borrowers. Furthermore, Black borrowers were 2.8 times more likely and Hispanic borrowers were 1.6 times more likely to be in forbearance than White borrowers.

Next, borrowers in forbearance as of January 2022 seem to have less financial capacity, on average, than borrowers in forbearance as of March 2021. Among mortgage borrowers who were delinquent pre-COVID-19, the rate of forbearance fell 46 percent between March 2021 and January 2022, whereas the rate of forbearance fell 74 percent over the same period for borrowers who were current pre-COVID-19. In addition, mortgage borrowers who were delinquent pre-COVID-19

[1] Under the CARES Act, homeowners with a GSE (Fannie Mae and Freddie Mac) and other federally backed mortgages have the right to request and obtain a forbearance for up to 180 days and an extension for another 180 days (for a total of 360 days). Guidance from the GSEs and federal agencies allows up to 18 months of forbearance. Privately owned mortgages are not covered by the CARES Act, but many servicers and investors offer similar protections for those loans.

[2] See National Mortgage Database Program, Federal Housing Finance Agency. https://www.fhfa.gov/PolicyProgramsResearch/Programs/Pages/National-Mortgage-Database.aspx.

[3] The measurement of forbearance and delinquency in credit reporting has some limitations. For a detailed discussion of these limitations, see Durbin et al. (2021), which explains issues with the measurement of forbearance and delinquency in credit reporting data.

[4] The January estimate is smaller than publicly available estimates provided by Black Knight through the middle of January, which indicate that 1.6 percent of borrowers were in forbearance programs (Black Knight, Inc., 2022). This difference is likely due to differences in the underlying data used to estimate forbearance. Black Knight uses daily mortgage servicing data, which do not experience a lag in the reporting of account status as is the case in credit reporting data.

were relatively less likely to be in forbearance in January 2022 compared with borrowers that were current pre-COVID-19. Pre-COVID-19 current borrowers were 12.4 times more likely to be in forbearance than to be 60+ days delinquent. In comparison, pre-COVID-19 delinquent borrowers were only 2.7 times as likely to be in forbearance than to be 60+ days delinquent.

The final discussion focuses on cross-sectional differences in the current (or mark-to-market) loan-to-value (LTV) ratio. Mortgage borrowers with current LTV ratios over 95 percent had significantly higher rates of forbearance as of January 2022 compared with loans with lower LTV ratios. However, this population of borrowers accounted for a small share of forbearances (1.0 percent). Finally, a significantly smaller share of loans in the January 2022 sample had current LTV ratios above 80 percent relative to the March 2021 sample of borrowers. Unlike in past recessions when house prices fell, during the pandemic, house prices increased significantly, reducing borrowers' LTVs.

An important caveat to this analysis is that this article focuses on comparing borrowers in forbearance to those not in forbearance. The authors do not study how those entering (or exiting) forbearance differ from others or the different ways borrowers can exit forbearance. For more information on these topics, see Shi, 2022.

Borrower Demographics

In this section, the authors analyze the demographics of mortgage borrowers who were in forbearance as reported through January 2022. An earlier related report by Durbin et al. (2021) showed that minority borrowers made up a disproportionately larger share of borrowers with loans either in forbearance or delinquent compared with the overall population of mortgage borrowers, using a March 2021 sample of borrowers. In particular, minority borrowers and borrowers living in majority-minority tracts had a higher likelihood of being in forbearance than White borrowers and borrowers not in majority-minority tracts, respectively. As shown in exhibit 1, although fewer loans to minority borrowers and loans for properties in majority-minority tracts were in forbearance in January 2022 compared with March 2021, these borrowers continue to be overrepresented among borrowers in forbearance.

Forbearance rates have fallen for all groups when broken out by race and ethnicity. Roughly 1.1 percent of White borrowers were in forbearance as of January 2022, compared with 3.7 percent in March 2021 (a 71-percent decrease). Black borrowers had forbearance rates of 3.0 percent (68-percent decrease). Roughly 1.7 percent of Hispanic borrowers were in forbearance in January 2022 (an 80-percent decrease), and all other borrowers[5] had forbearance rates of 0.9 percent (an 84-percent decrease). These numbers represent significant reductions in forbearance for minority groups, especially Hispanic and other-race borrowers, that are relatively larger than for White borrowers.

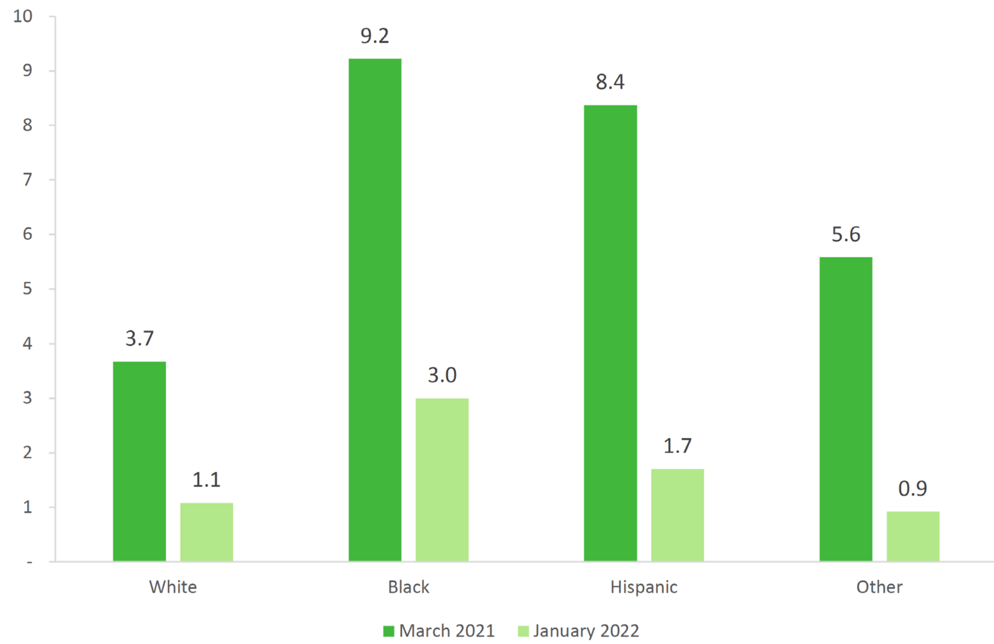
Nevertheless, Black and Hispanic borrowers remained significantly more likely to be in forbearance compared with White borrowers. Black and Hispanic borrowers were 2.8 times and 1.6 times more

[5] As in Durbin et al. (2021), the other-race borrower group includes non-Hispanic borrowers reported as American Indian, Asian, Native Hawaiian/Pacific Islander, or multiple races.

likely to end up in forbearance than White borrowers, respectively. Other-race borrowers were less likely to experience forbearance compared with White borrowers.

Exhibit 1

Percentage of Borrowers in Forbearance by Race and Ethnicity



Source: National Mortgage Database Program, Federal Housing Finance Agency and Consumer Financial Protection Bureau

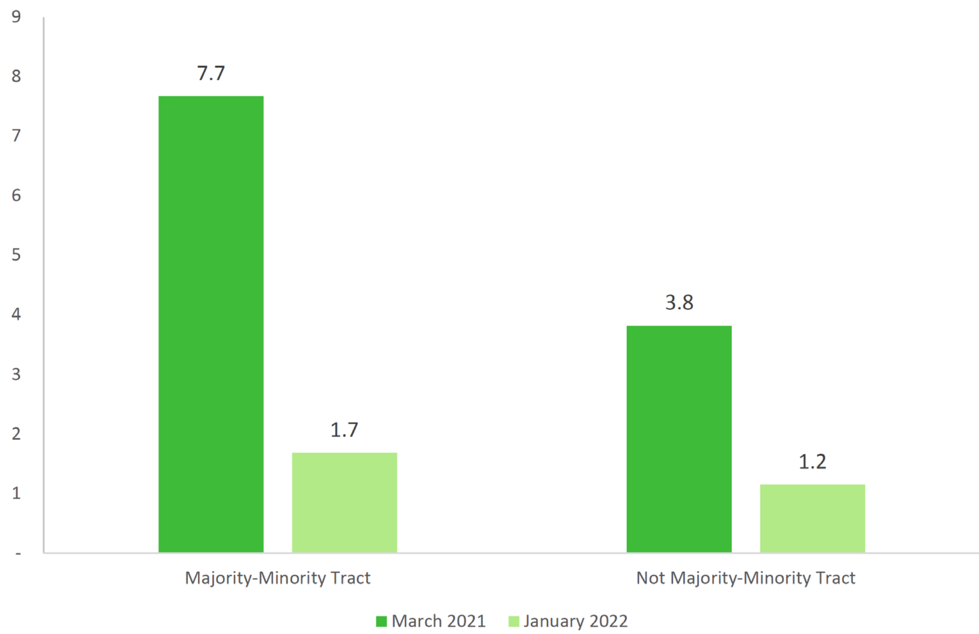
Considering the overall composition of loans that were in forbearance in the January 2022 sample, White borrowers accounted for roughly 64 percent of loans in forbearance, whereas Black and Hispanic borrowers each accounted for roughly 16 percent and other-race borrowers accounted for roughly 4 percent. Loans held by White borrowers continued to make up a large majority of this group, consistent with White borrowers accounting for the largest share of mortgages in the sample.[6] In January 2022, the share belonging to Hispanic borrowers fell, and the share belonging to Black borrowers increased relative to March 2021. The different pattern for Black borrowers results from having a relatively smaller reduction in forbearances since March 2021 while accounting for a relatively smaller share of the overall sample compared with Hispanic borrowers.

Turning to analysis at the tract level, borrowers living in majority-minority census tracts remained more likely to be in forbearance, as shown in exhibit 2. The data show that roughly 1.7 percent of borrowers living in majority-minority tracts were in forbearance versus 1.2 percent in non-majority-minority tracts. However, as a share of overall forbearances, loans in majority-minority tracts fell from 35.7 percent in March 2021 to 29.2 percent in January 2022 (an 18-percent decrease).

[6] The overall racial composition of the NMDB sample is White (75.7 percent), Black (6.6 percent), Hispanic (11.6 percent), and other race (6.0 percent).

Exhibit 2

Percentage of Borrowers in Forbearance by Majority-Minority Tract Status



Source: National Mortgage Database Program, Federal Housing Finance Agency and Consumer Financial Protection Bureau

Factors Related to Financial Capacity

Most borrowers who entered a COVID-19 forbearance have since exited.[7] An open question is when and how the borrowers who remain in forbearance will exit it. Understanding factors related to a household's financial capacity can shed light on this matter.

Following Durbin et al. (2021), the primary measures of financial capacity include pre-COVID-19 mortgage delinquency status, non-mortgage distress, single-borrower status, and relative income position (see appendix A). Prepandemic mortgage delinquency and non-mortgage distress serve as proxies for payment difficulty; single-borrower status and relative income position proxy for financial capacity.

Whether a borrower was delinquent on their mortgage immediately before the pandemic ("pre-COVID-19 delinquent") continues to be an important factor associated with a borrower's likelihood of having a loan in forbearance. Overall, pre-COVID-19 delinquency is strongly correlated with forbearance, as shown in exhibit 3. As of January 2022, the rate of forbearance among borrowers

[7] Publicly available estimates from Black Knight through January 2022 report that among borrowers who entered into a COVID-19 forbearance, 52 percent transitioned to performing status, 27 percent paid off their loan, 11 percent remained in active forbearance, 6 percent exited into post-forbearance loss mitigation, 3 percent were post-forbearance delinquent, and 1 percent were post-forbearance active foreclosure (Black Knight, Inc., 2022).

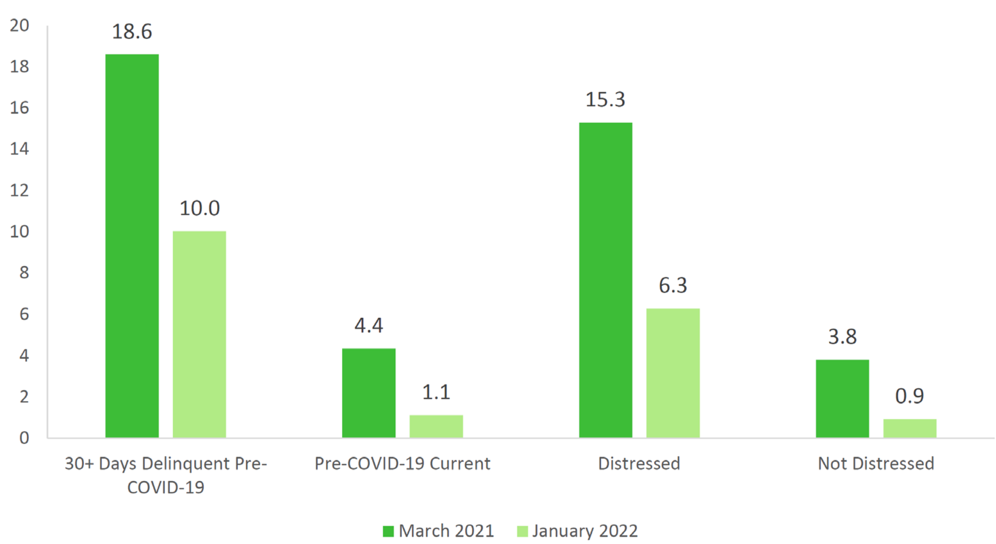
who were pre-COVID-19 delinquent was 10.0 percent. For the same period, only 1.1 percent of borrowers who were pre-COVID-19 current were in forbearance. Relative to March 2021, the pre-COVID-19 delinquent borrowers experienced a 46-percent decrease in forbearance rate, whereas the borrowers who were pre-COVID-19 current saw a 74-percent decrease.

However, pre-COVID-19 delinquency was also correlated with being delinquent and not in forbearance both in March 2021 and January 2022. The rate of 60+ day delinquency among borrowers who were pre-COVID-19 delinquent was roughly 15.4 percent in March 2021 and 3.7 percent in January 2022 (see appendix A). In contrast, the rate of delinquency for borrowers who were pre-COVID-19 current was 0.2 percent in March 2021 and 0.1 percent in January 2022.

Furthermore, comparing within groups, borrowers who were pre-COVID-19 current were significantly more likely to be in forbearance than to be delinquent compared with borrowers who were pre-COVID-19 delinquent. In January 2022, borrowers who were pre-COVID-19 current were 12.4 times more likely to be in forbearance than to be delinquent, whereas borrowers who were pre-COVID-19 delinquent were only 2.7 times as likely to be in forbearance than to be delinquent. Similar within-group patterns are observed in the March 2021 sample. Overall, the data suggest that pre-COVID-19 delinquent borrowers were less likely to have used COVID-19 forbearance protections to avoid delinquency compared with borrowers who were pre-COVID-19 current.

Exhibit 3

Percentage of Borrowers in Forbearance by Distress and Pre-COVID-19 Delinquency



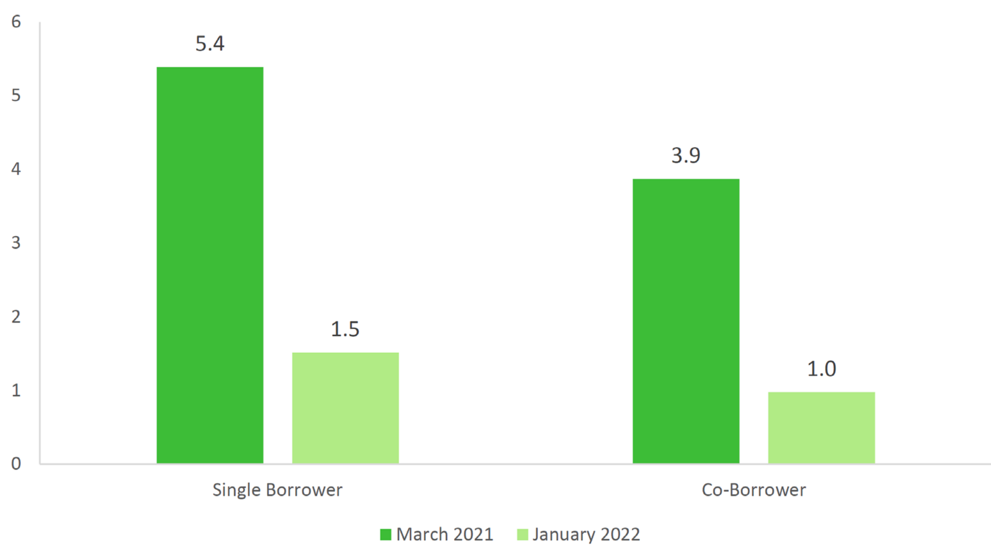
Source: National Mortgage Database Program, Federal Housing Finance Agency and Consumer Financial Protection Bureau

A borrower is considered “distressed” if they were delinquent or in forbearance on an auto loan or credit card as of December 2021, the most recent data available. The share of January 2022 mortgage forbearances that belonged to distressed borrowers was 31.3 percent. This share is somewhat larger than the 25.4 percent reported in the March 2021 sample, which measured non-mortgage delinquency as of September 2020. Non-mortgage delinquency may be overestimated due to general seasonal delinquency in non-mortgage debt (for example, see Drukker and Nelson, 2018). Overall, the data show that distressed borrowers were 6.8 times more likely to be in forbearance than non-distressed borrowers in January 2022.

As shown in exhibit 4, single-borrower loans were about 1.6 times more likely to be in forbearance through January 2022 compared with loans with a co-borrower. This finding reveals an increase relative to March 2021, where single borrowers were only 1.4 times more likely to be in forbearance compared with co-borrowers. Furthermore, the share of forbearances that belonged to single borrowers increased to 64.7 percent in January 2022 from 59.6 percent in March 2021. Thus, forbearances remained relatively more common for loans with a single borrower than loans with multiple borrowers. This pattern could reflect that many single borrowers may be in single-income households and, thus, more resource constrained, on average, compared with dual-income households.

Exhibit 4

Percentage of Borrowers in Forbearance by Borrower Status



Source: National Mortgage Database Program, Federal Housing Finance Agency and Consumer Financial Protection Bureau

Living in a relatively lower-income tract is associated with a greater likelihood of forbearance, as shown in exhibit 5. In the January 2022 sample, borrowers in the lowest quartile of tract-to-MSA (metropolitan statistical area) income (Q1) were 1.7 times more likely to be in forbearance compared with borrowers in the highest quartile of tract-to-MSA income (Q4). Borrowers in the second (Q2) and third (Q3) quartiles of tract-to-MSA income were 1.4 and 1.2 times more likely to be in forbearance, respectively, compared with Q4 borrowers.

As a share of all forbearances, borrowers living in Q1 made up 33.7 percent of loans in forbearance, which is an increase relative to March 2021. It is also almost twice as large as the share of borrowers from Q4, which made up only 17.8 percent of loans in forbearance. On average, borrowers living in the lowest quartile of tract-to-MSA income would likely have fewer income resources compared with borrowers living in the highest quartile. Thus, borrowers in the lowest income quartile would have relatively less financial capacity.

Exhibit 5

Percentage of Borrowers in Forbearance by Quartile of Tract-to-MSA Income

Quartile of Tract-to-MSA Income	March 2021	January 2022
Income: Q1	5.5	1.6
Income: Q2	4.5	1.3
Income: Q3	4.2	1.2
Income: Q4	4.4	1.0

Source: National Mortgage Database Program, Federal Housing Finance Agency and Consumer Financial Protection Bureau

Overall, households with less financial capacity continue to be more likely to have loans in forbearance compared with those with relatively more financial capacity, on the basis of the measures presented in this analysis.

The Distribution of Current Loan-to-Value Ratios

Over the course of the pandemic, many homeowners experienced significant gains in home equity due to house price appreciation. One publicly available estimate is that house prices increased 26 percent over the 24-month period ending January 2022 (AEI, 2022). For borrowers who entered forbearance or were delinquent during or throughout the pandemic, house price appreciation would increase their home equity, all else equal. Unlike in past economic downturns in which house prices fell, significant house price appreciation may provide borrowers with additional opportunities to avoid foreclosure as CARES Act protections expire (for example, through rate-term refinancing, loan modification, or selling the home). The idea that borrowers can avoid foreclosure due to house price appreciation has been a topic of discussion throughout the pandemic (see Elul and Newton, 2021; Neal and Goodman, 2021).

To examine the evidence on the relationship between house price appreciation and LTV ratios, the authors report the distribution of current LTV ratios for three samples: March 2021, January 2022, and January 2022, restricted to loans open as of March 2021 or earlier (called the “restricted January 2022 sample”). By using the latter, changes can be isolated in the distribution of LTV ratios that come from loans that were open in March 2021, as opposed to the full January 2022 sample, which includes new mortgages (for example, for refinance or purchase) that originated between March 2021 and January 2022. The current LTV ratio is a mark-to-market measure based on house price index data from December 2021, the most recent data available.

Overall, the data show that few loans have high LTV ratios, as shown in exhibit 6. In the restricted January 2022 sample, loans with an LTV ratio above 95 percent accounted for 0.2 percent of the sample, and loans with an LTV ratio above 80 and up to 95 percent accounted for 6.2 percent of the sample. These findings reveal a decrease relative to March 2021, when the comparable numbers were 0.3 percent for an above-95-percent LTV ratio and 8.5 percent for an above-80 and up to 95-percent LTV ratio. Most loans in the sample had LTV ratios at or below 80 percent in January 2022. Furthermore, the share of loans with an LTV ratio between 60 and 80 percent increased significantly from 26.0 percent in March 2021 to 30.3 percent in the restricted January 2022 sample.

Similar patterns hold for the full January 2022 sample, with the share of all loans being slightly higher for LTV ratios above 60 percent. This finding is expected given that the sample includes new loans that often originate at LTV ratios of 80 percent or higher and may have benefited less from house price appreciation. Overall, the data suggest that house price appreciation increased the home equity of many borrowers during the pandemic.

Exhibit 6

Distribution of Loan-to-Value Ratio by Sample

LTV Group	March 2021	January 2022	January 2022 Restricted
<= 60.00	65.20	60.10	63.30
60.01–80.00	26.00	32.40	30.30
80.01–95.00	8.50	7.40	6.00
> 95.00	0.30	0.20	0.20

LTV = loan-to-value.
Notes: Numbers are percentages. Percentages may not add to 100 percent due to rounding.
Source: National Mortgage Database Program, Federal Housing Finance Agency and Consumer Financial Protection Bureau

Turning to the composition of loans in forbearance, between March 2021 and January 2022, the situation may have worsened for the relatively small number of borrowers with an LTV ratio above 95 percent, as shown in exhibit 7. Compared with borrowers with an LTV ratio greater than 80 and up to 95 percent, borrowers with an LTV ratio above 95 percent were 2.6 times more likely to be in forbearance and 8.5 times more likely to be 60+ days delinquent as of January 2022—a significant increase compared with the numbers for March 2021 (1.7 times more likely to be in forbearance and 7.4 times more likely to be 60+ days delinquent).

For borrowers with an LTV ratio above 95 percent, the 60+ day delinquency rate fell 48 percent between March 2021 and January 2022 (3.8 percent in January 2022 compared with 7.4 percent in March 2021), the smallest decrease for any LTV category considered. Borrowers with LTVs between 80 and 95 percent saw a 54-percent decrease, and borrowers with LTVs between 60 and 80 percent saw a 72-percent decrease between March 2021 and January 2022.

Exhibit 7

Percentage of Borrowers in Forbearance by Loan-to-Value Ratio

LTV Group	March 2021		January 2022	
	In Forbearance	60+ Days Delinquent	In Forbearance	60+ Days Delinquent
<= 60	3.5	0.4	0.8	0.1
60.01–80.00	5.9	0.6	1.6	0.2
80.01–95.00	8.9	1.0	3.4	0.5
> 95	15.3	7.4	8.6	3.8

LTV = loan-to-value.
Notes: Numbers are percentages. Percentages may not add to 100 percent due to rounding.
Source: National Mortgage Database Program, Federal Housing Finance Agency and Consumer Financial Protection Bureau

Overall, the data report that the level of home equity is related to a borrower's likelihood of having a mortgage loan that is in forbearance or delinquent. Specifically, borrowers with LTV ratios above 95 percent remain significantly more likely to have loans in forbearance or delinquent.

Conclusion

Most of the 8 million borrowers who entered mortgage forbearance due to the dire economic circumstances presented by the COVID-19 pandemic have exited. However, many borrowers remain in forbearance. This analysis provides insight into who these borrowers are. It also sheds light on the financial circumstances of these borrowers compared with borrowers who were in forbearance earlier in the pandemic.

As protections under the CARES Act have expired for many loans, what will happen to the borrowers who remain in forbearance is unclear. This analysis shows that these borrowers are more likely to be minorities and to live in majority-minority tracts. The data also show that these borrowers may have less financial capacity on certain dimensions, such as whether they were delinquent before the start of the pandemic. Although house price appreciation may provide additional opportunities for some of these borrowers, a small group of borrowers with little to no housing equity may be at a particularly high risk of foreclosure. Overall, the analysis suggests that borrowers remaining in forbearance may have relatively more difficulty avoiding foreclosure compared with borrowers who have already exited.

Variable Definitions

The following variables are used in this report and defined using data from the National Mortgage Database:

1. Race is defined on the basis of the primary borrower. *White* is non-Hispanic and White. *Black* is non-Hispanic and Black, including borrowers who reported two races, one being Black. *Hispanic* is based on reported ethnicity and can be for any race (White, Black, or other). *Other* includes non-Hispanic borrowers reported as American Indian, Asian, Native Hawaiian/Pacific Islander, or multiple races.

2. Current or mark-to-market LTV is estimated using information on the current first-lien loan balance and changes in the local home price index to estimate a current property value as of December 2021.

3. Single-borrower status is measured on the basis of whether the loan has only one borrower reported. If the loan reports more than one borrower, it is classified as a co-borrower loan.

4. Delinquency status in February 2020 is measured by the mortgage loan account status—specifically, whether the account is reported as 30+ days delinquent in February 2020, which is 1 month before the start of the COVID-19 pandemic.

5. Distress is measured at the household level on the basis of the borrower's performance on auto loans and credit cards, as reported through December 2021. A borrower is "distressed" if he or she is delinquent or in forbearance on an auto loan or credit card and "not distressed" if he or she has an auto loan or credit card but is not delinquent or in forbearance on either product. The focus is on auto loans and credit cards because, unlike with mortgages or student loans, forbearance is more likely to be discretionary because government-sponsored forbearance programs are not available for those products.

6. Relative income quartile is measured on the basis of the ratio of census tract-to-MSA income, which comes from the American Community Survey (ACS).

Appendix A

Exhibit A-1

Forbearance and 60+ Day Delinquency Rates by Borrower Characteristics, March 2021 and January 2022 (1 of 2)

Borrower Characteristic	March 2021		January 2022	
	In Forbearance	60+ Days Delinquent	In Forbearance	60+ Days Delinquent
White	3.67	0.50	1.08	0.14
Black	9.22	0.98	3.00	0.32
Hispanic	8.37	0.72	1.70	0.20
Other	5.58	0.26	0.92	0.08
LTV: <= 60.00	3.53	0.41	0.84	0.10
LTV: 60.01–80.00	5.93	0.64	1.56	0.18
LTV: 80.01–95.00	8.94	0.99	3.37	0.45
LTV: > 95.00	15.30	7.37	8.60	3.82
Single Borrower	5.39	0.73	1.52	0.21
Co-borrowers	3.87	0.35	0.98	0.08
Delinquent (30+ days) in Feb. 2020	18.60	15.40	10.03	3.66
Current in Feb. 2020	4.35	0.23	1.12	0.09
Distressed	15.30	3.39	6.29	1.28
Not Distressed	3.81	0.21	0.93	0.06

Exhibit A-1

Forbearance and 60+ Day Delinquency Rates by Borrower Characteristics, March 2021 and January 2022 (2 of 2)

Borrower Characteristic	March 2021		January 2022	
	In Forbearance	60+ Days Delinquent	In Forbearance	60+ Days Delinquent
Majority-Minority Tract	7.67	0.74	1.69	0.20
Not a Majority-Minority Tract	3.82	0.49	1.15	0.14
Income: Q1	5.50	0.80	1.61	0.23
Income: Q2	4.47	0.63	1.33	0.17
Income: Q3	4.23	0.45	1.17	0.13
Income: Q4	4.42	0.30	0.97	0.09

LTV = loan-to-value.
Notes: Numbers are percentages. Percentages may not add to 100 percent due to rounding.
Source: National Mortgage Database Program, Federal Housing Finance Agency and Consumer Financial Protection Bureau

Acknowledgments

The authors would like to thank Jason Brown and Erik Durbin at the Consumer Financial Protection Bureau for their support in generating this publication. They would also like to thank Robert Avery, Ian Keith, and Saty Patrabansh at the Federal Housing Finance Agency for their assistance and guidance working with the data.

Authors

Greta Li is a Senior Research Assistant at the Office of Research, Consumer Financial Protection Bureau. David Low is an Economist at the Office of Research, Consumer Financial Protection Bureau. Judith Ricks is an Economist at the Office of Research, Consumer Financial Protection Bureau. For more information, contact Judith Ricks at judith.ricks@cfpb.gov.

References

American Enterprise Institute (AEI). 2022. "Housing Finance: Insights on the New Normal (week 2, 2022)." https://www.aei.org/wp-content/uploads/2022/01/OB-Infographic-The-New-Normal-2022-Week-2-FINAL-v2.pdf?x91208.

Black Knight, Inc. 2022. *Mortgage Monitor*, December 2021 Report. https://www.blackknightinc.com/wp-content/uploads/2022/02/BKI_MM_Dec2021_Report.pdf.

Drukker, Leonel, and Scott Nelson. 2018. "End-of-Year Credit Card Borrowing." *Consumer Financial Protection Bureau Quarterly Consumer Credit Trends*, June.

Durbin, Erik, Greta Li, David Low, and Judith Ricks. 2021. "Characteristics of Mortgage Borrowers During the COVID-19 Pandemic." *Consumer Financial Protection Bureau Office of Research Special Issue Brief*.

Elul, Ronel, and Natalie Newton. 2021. "Helping Struggling Homeowners During Two Crises." *Federal Reserve Bank of Philadelphia Economic Insights* 6 (4): 2–8.

Li, Greta, and Judie Ricks. 2022. "New Data on the Characteristics of Mortgage Borrowers During the COVID-19 Pandemic." *Consumer Financial Protection Bureau Office of Research Special Issue Brief*.

Neal, Michael, and Laurie Goodman. 2021. "The Predicted Foreclosure Surge Likely Won't Happen, Even Among Financially Vulnerable Borrowers," *Urban Wire*, February 11.

Shi, Lan. 2022. "Heterogeneity in the Effect of COVID-19 Mortgage Forbearance: Evidence from Large Bank Servicers," *Cityscape* 24 (3): 21–60.