

Manufactured Home Loan Performance

(FOR ORIGINATIONS BETWEEN 2009 AND 2019)

Manufactured housing is a critical source of unsubsidized housing that is affordable to households with low and moderate incomes and has the potential to play a more significant part in addressing America's housing affordability crisis. The average purchase price of a manufactured, or factory-built, home is about a half to a third less per square foot than a traditional site-built home (Urban Institute, 2018). Factory-built homes also are faster and less resource-intensive to build than site-built homes. Today, 22 million people nationwide live in factory-built homes. Yet certain myths around factory-built housing inhibit its reach and financing. One of the most persistent is that delinquency rates on factory-built homes are higher than those on site-built homes.

In this report, we offer insights into the performance of loans on factory-built homes from the [National Mortgage Database](#) (NMDB). We chose the NMDB as our data source because it includes both loan performance and an indicator for manufactured home loans, which makes it the most powerful available dataset we know of.

The analysis starts with an overview of the nationwide market of manufactured home loan originations between 2009 and third quarter 2019, followed by an examination of overall manufactured home loan performance and a specific look at loans secured by both the manufactured home and land (real property mortgages). Lastly, results in the five states with the highest manufactured home loan counts are compared to national averages.

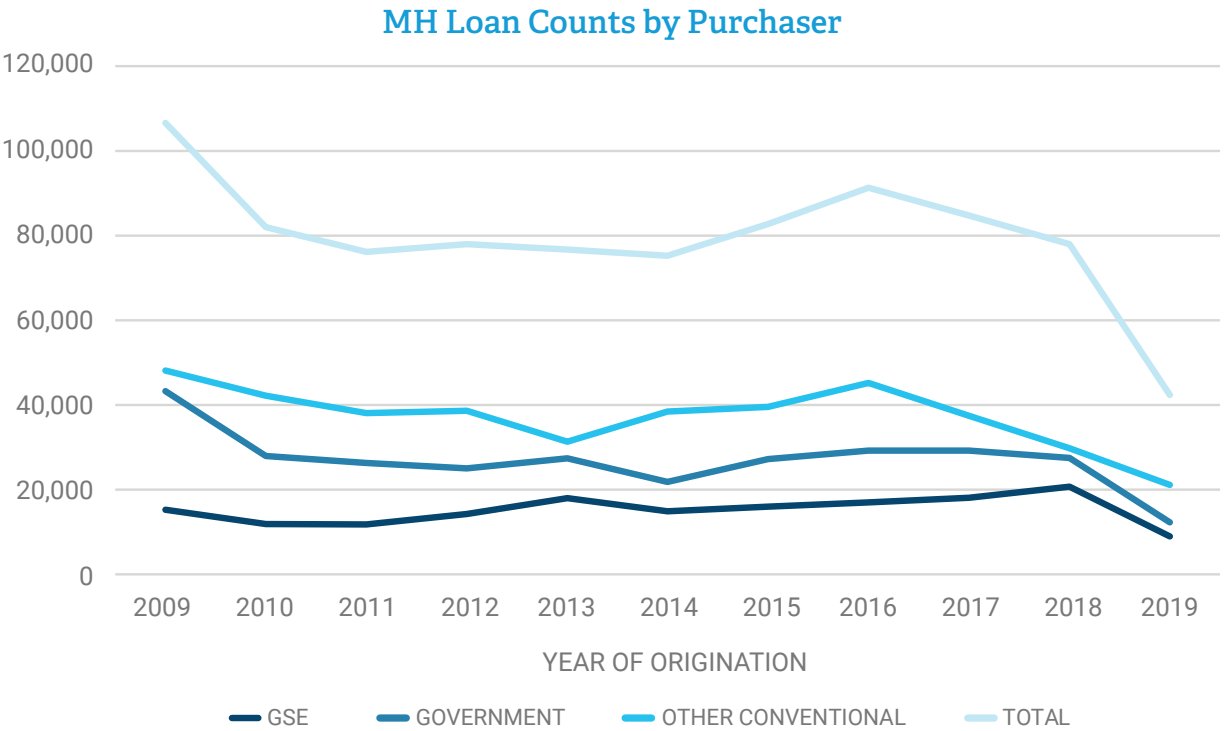
1. The Manufactured Home Loan Originations Market

For the purposes of this analysis, we restricted the data sample to originations of conforming loans on single-family (one to four units), owner-occupied homes. We excluded high-cost mortgages, as defined by the Home Ownership and Equity Protection Act (HOEPA). Also, we explored patterns in three distinct market segments:

- Government-sponsored enterprises (GSEs), which includes Freddie Mac and Fannie Mae purchased conventional loans
- Government, which includes the Federal Housing Administration (FHA), Farm Service Agency or Rural Housing Service (FSA/RHS)-insured loans, and Veterans Administration (VA)-guaranteed loans
- Other Conventional, which comprises the remaining conventional loans after excluding the GSEs purchased conventional loans

Overall manufactured home loan originations have decreased sharply over the last 10 years, falling from 106,600 in 2009 to 77,940 in 2018 (last full year of data available), as shown in Figure 1 and Table 1. A drop from 2009 to 2010 largely is attributed to the decrease in the Government segment. Since 2010, originations have remained relatively stable, aside from some ups (2014-2016) and downs (2016-2018).

Figure 1. Manufactured home loan counts by purchaser and year of origination



Notes: Data source is the NMDB. GSE refers to conventional loans purchased by the government-sponsored enterprises Freddie Mac and Fannie Mae; this segment excludes government-insured loans for Duty to Serve purposes. Other Conventional comprises the remaining conventional loans, excluding GSE purchases. Government includes FHA, FSA/RHS-insured, and VA-guaranteed loans. The loan counts were calculated by multiplying the NMDB sample counts by 20, due to NMDB's 1-in-20 random sample draw from the population.

The percentage of manufactured home loans purchased by the GSEs increased from 0.3% in 2009 to 0.8% in 2018. In contrast, Other Conventional manufactured home loans significantly decreased as a percentage of its total loan purchases, from 5.6% in 2009 to 3.1% in 2018. The Government segment's manufactured loan purchases stayed in a range between 1.9% and 1.8%.

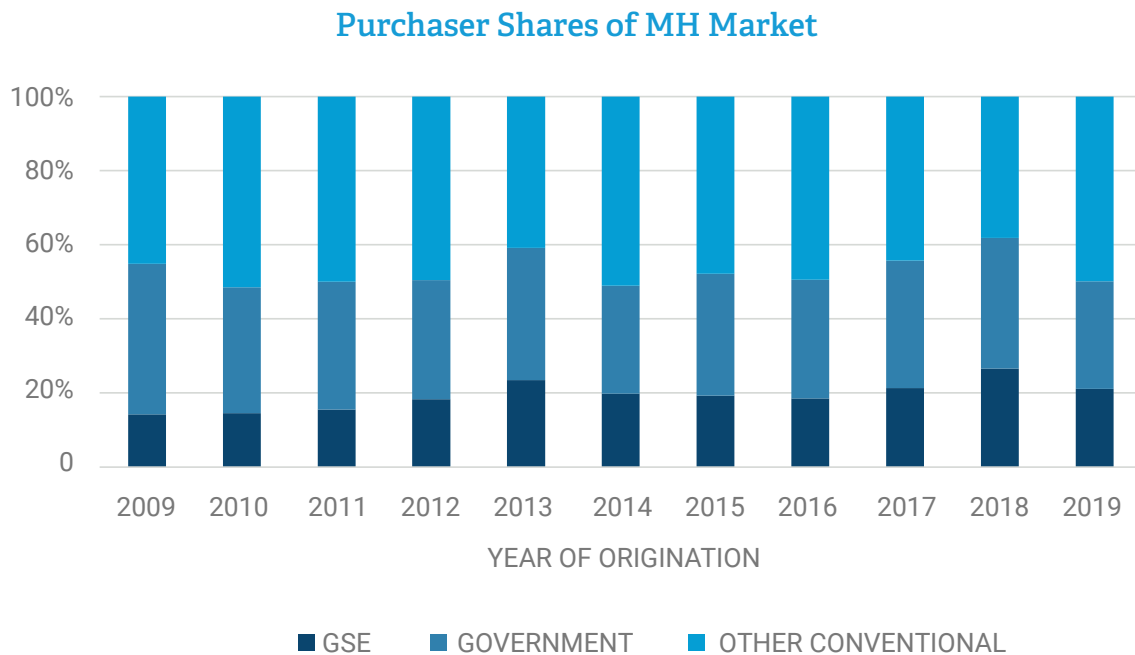
Table 1. MH loan counts and percentages of MH loans by purchaser

Origination Year	GSE		Government		Other conventional		Total	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
2009	15,220	0.3%	43,260	1.9%	48,120	5.6%	106,600	1.4%
2010	11,900	0.3%	27,920	1.6%	42,160	5.4%	81,980	1.3%
2011	11,800	0.4%	26,280	1.8%	38,080	4.9%	76,160	1.4%
2012	14,280	0.3%	25,040	1.3%	38,660	4.2%	77,980	1.0%
2013	18,000	0.5%	27,360	1.6%	31,320	3.7%	76,680	1.2%
2014	14,920	0.7%	21,860	1.7%	38,420	5.8%	75,200	1.8%
2015	15,940	0.6%	27,220	1.5%	39,540	5.1%	82,700	1.5%
2016	16,960	0.5%	29,180	1.4%	45,160	5.2%	91,300	1.5%
2017	18,080	0.7%	29,200	1.7%	37,480	4.4%	84,760	1.6%
2018	20,700	0.8%	27,480	1.8%	29,760	3.1%	77,940	1.6%
2019	8,960	0.7%	12,280	1.3%	21,120	2.2%	42,360	1.3%

Notes: Data source is the NMDB. GSE refers to conventional loans purchased by the government-sponsored enterprises Freddie Mac and Fannie Mae; this segment excludes government-insured loans for Duty to Serve purposes. Other Conventional comprises the remaining conventional loans, excluding GSE purchases. Government includes FHA, FSA/RHS-insured, and VA-guaranteed loans.

Relative to the whole market, the GSEs increased their share of manufactured home loan purchased from 14.3% in 2009 to 26.6% in 2018. The Government share was around 30% to 40% between 2009 and 2018. The Other Conventional segment had the largest market share (between 40% and 50%) but hit its lowest point since 2009 in 2018 with 38.2%, as shown in Figure 2.

Figure 2. Market share of manufactured home loan purchases by purchaser and year of origination



Notes: Data source is the NMDB. GSE refers to conventional loans purchased by the government-sponsored enterprises Freddie Mac and Fannie Mae; this segment excludes government-insured loans for Duty to Serve purposes. Other Conventional comprises the remaining conventional loans, excluding GSE purchases. Government includes FHA, FSA/RHS-insured, and VA-guaranteed loans.

2. Examining Manufactured Home Loan Performance

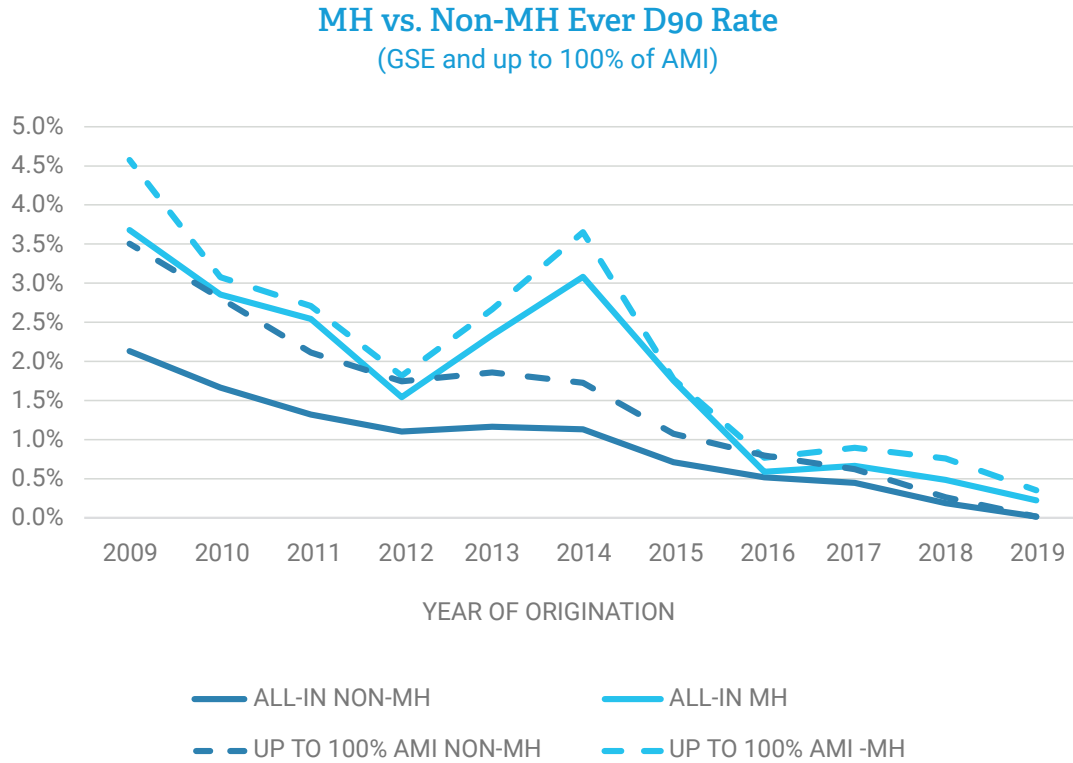
To gain insight into the performance of manufactured home loans, Freddie Mac examined 90-day delinquency (ever D90) and 120-day delinquency (ever D120) rates as of the third quarter 2019. Because the patterns with either measure generally echoed each other, only the ever D90 results are presented here (tables are available for the ever D120 case (Appendix, Table A1a). In addition to examining the entire manufactured home loan market (all in), we separately analyzed loan performance for borrowers with incomes at or below 100% of the area median income (AMI), to reflect the market for Duty to Serve-qualified manufactured home financing.

In general, manufactured home loans have higher or similar ever D90 rates when compared to site-built home loans, for the all-in market and for low-to-moderate income (LMI) borrowers with incomes up to 100% of AMI. The differences are most pronounced in the Other Conventional segment. Loans in LMI sample generally have slightly higher ever D90 rates than the corresponding all-in loan sample across segments.

2.1. Gse-Purchased Manufactured Home Loans

GSE-purchased manufactured home loans have slightly higher ever D90 rates for borrowers earning up to 100% of AMI when compared to all-in manufactured home loans and site-built home loans. For instance, for GSE-purchased loans originated in 2009, the ever D90 rate for manufactured home loans was 3.7% and 2.1% for site-built home loans; the corresponding numbers for borrowers earning up to 100% of AMI were 4.6% and 3.5%, respectively (Figure 3 and Table A1). Additional research would be required to identify the factors that drove the sharp increase and subsequent decrease of ever D90 rates from 2012 to 2014.

Figure 3. Ever 90-day delinquency rate of GSE loans by year of origination

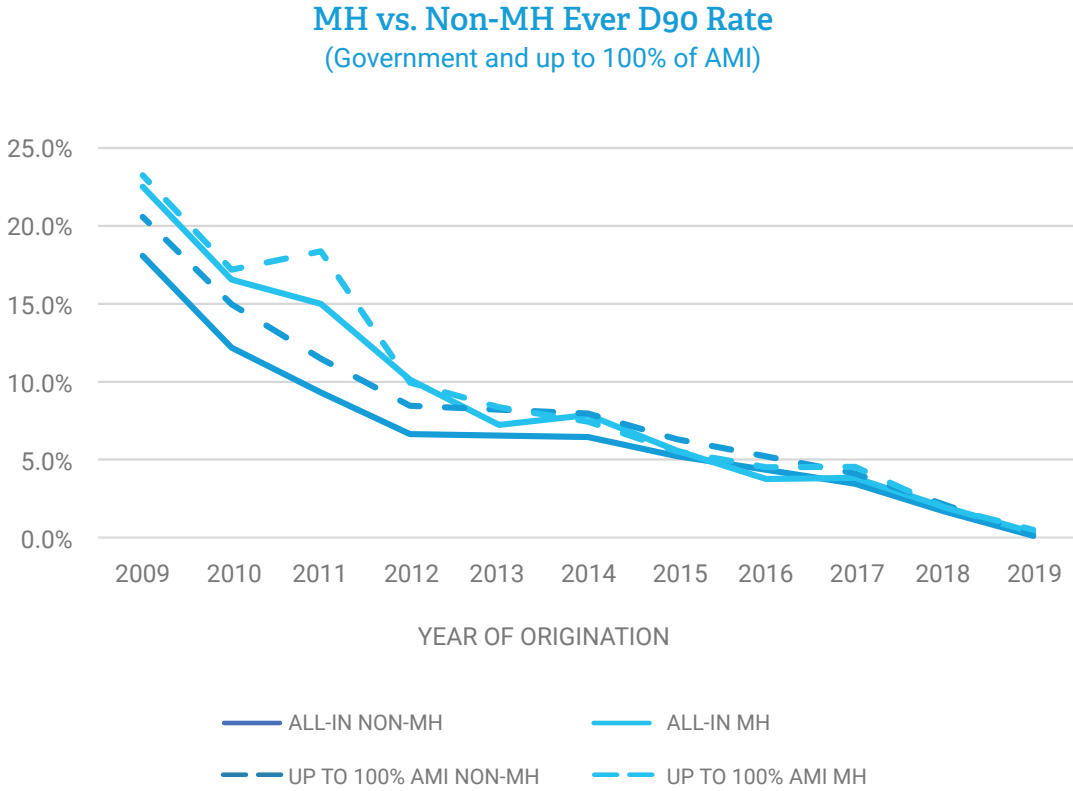


Notes: Data source is the NMDDB; GSE refers to conventional loans purchased by the government-sponsored enterprises Freddie Mac and Fannie Mae; this segment excludes government-insured loans for Duty to Serve purposes. The up to 100% of AMI sample includes a subset of all-in GSE loans for borrowers with application income up to 100% of AMI.

2.2. Government-Insured Manufactured Home Loans

The Government-insured loans tend to have much higher delinquency rates than those purchased by the GSEs in the manufactured and site-built home loan spaces, especially for loans originated in the early years in our scope (2009-2011). For instance, for Government-insured loans originated in 2009, the ever D90 rate for manufactured home loans was 22.5% and 18.1% for site-built home loans; for borrowers earning up to 100% of AMI, the rates are 23.2% and 20.6%, respectively. Since 2013, both ever D90 rates are much lower (less than 10%) and the differences between manufactured and site-built home loans converged, as shown in Figure 4 and Table A2.

Figure 4. Ever 90-day delinquency rate of Government-insured loans by year of origination

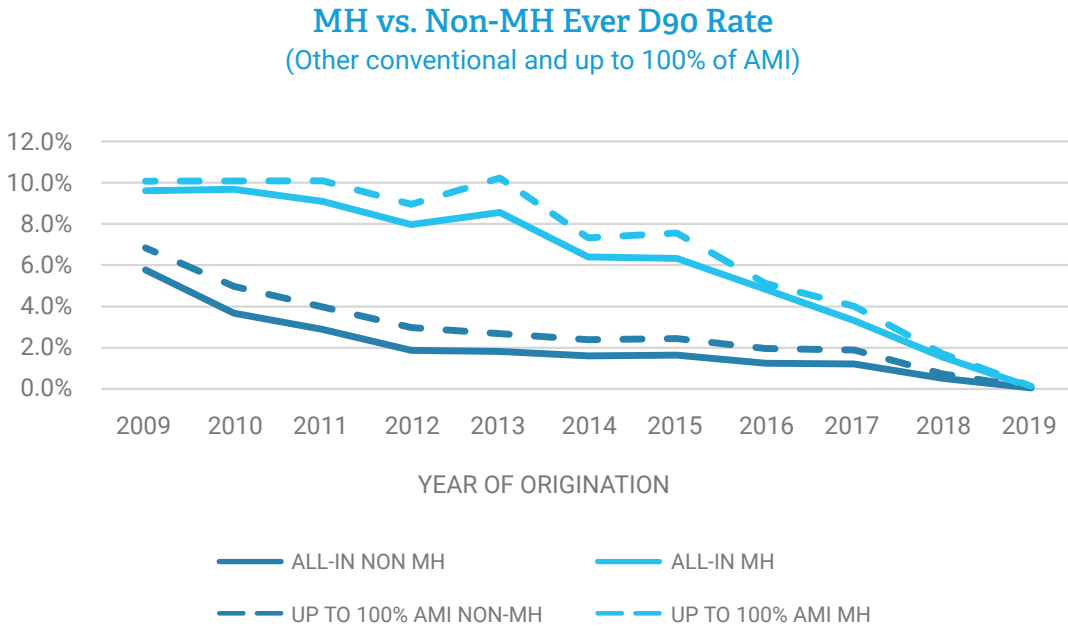


Notes: Data source is the NMDB; GSE refers to conventional loans purchased by the government-sponsored enterprises Freddie Mac and Fannie Mae; this segment excludes government-insured loans for Duty to Serve purposes. The up to 100% of AMI sample includes a subset of all-in GSE loans for borrowers with application income up to 100% of AMI.

2.3. Other Conventional Manufactured Home Loans

For Other Conventional loans, the delinquency rates were between those of the GSE and Government segments in earlier origination years (2009-2012). For instance, for Other Conventional loans originated in 2009, the ever D90 rate for manufactured home loans was 9.6% and 5.8% for site-built home loans; for borrowers earning up to 100% of AMI, the rates were 10.1% and 6.8%, respectively. Since 2013, the manufactured home loan performance has been comparable to government-insured loans; the site-built home loan performance has been close to that of GSE-purchased loans (Figure 5 and Table A3).

Figure 5. Ever 90-day delinquency rate of Other Conventional loans by year of origination



Notes: Data source is NMDB; other conventional loans include the remaining conventional loans after excluding GSE conventional loans. The up to 100% of AMI sample indicates a subset of all-in other conventional loans for borrowers with application income up to 100% of AMI.

3. Reexamining Manufactured Home Loan Performance with Manufactured Home Title Considered

To better compare the performance of manufactured home loans purchased by the GSEs and the Government with the Other Conventional loans, we removed loans for manufactured homes likely titled as personal property in the Other Conventional segment because the GSEs have not typically purchase those loans. Further, the differences in loan attributes and collateral (land versus no land include) makes direct loan performance comparisons more complicated. However, NMDB does not allow us to distinguish loans secured by personal property or real property with certainty. Therefore, we explored the patterns in the Home Mortgage Disclosure Data (HMDA), which has the largest coverage of mortgage originations. The 2018 HMDA data release includes an indicator for loans secured by the manufactured home only (personal property loan) or both the home and land (real property mortgage).

According to HMDA 2018, 32% of the reported manufactured home originations are personal property loans and 59% as real property mortgages. For Other Conventional manufactured loans, the percentage of personal property loans are 47.5%, compared to the GSEs (1.4%) and the Government (1.2%) segments (Table 2).

Table 2. Percentages of manufactured homes titled as personal and real property by purchaser type in 2018

NATION	Purchaser Type	Personal	Real	NA
	GSE	1.4%	93.6%	4.9%
	Ginnie Mae	1.2%	97.4%	1.4%
	Other	47.5%	40.9%	11.6%
	Total	32.3%	59.0%	8.7%

Notes: Calculated by Freddie Mac. Data source is Home Mortgage Disclosure Data (HMDA) 2018. Restrictions on the sample are single-family (1-4 units), conforming, owner-occupied and non-HOEPA loans.

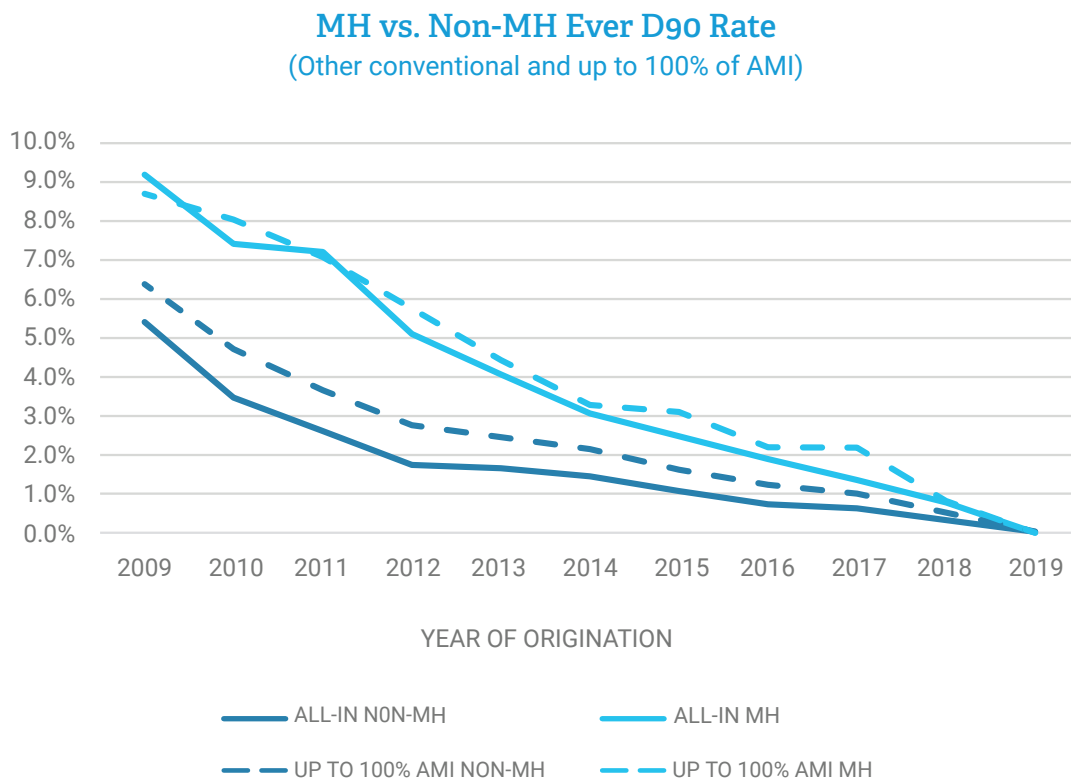
3.1. Restricted Sample To “Likely” Loans For Manufactured Homes Titled As Real Property Only

More than 90% of the personal property loans reported in the 2018 HMDA are also higher-cost originations. Therefore, we excluded from the sample loans with a rate spread greater than 3%. We also excluded outlier loan-to-value ratios (LTV) representing the lowest 1% of LTVs, which were highly concentrated in the Other Conventional segment. The restrictions barely influenced the manufactured loan counts for the GSE and Government segments, but significantly reduced the loan counts in the Other Conventional segment (by up to 50% in some years).

With the restricted sample, the ever D90 rate for Other Conventional manufactured home loans decreased by up to about 400 basis points (a basis point is 0.01 percentage points) (Figure 6) compared to the unrestricted sample (Figure 5). For instance, for the Other Conventional loans originated in 2011 and 2013, the ever D90 rate for manufactured home loans was 7.2% and 4.1%, respectively, versus the unrestricted sample of 9.1% and 8.5% (Table A3a and Table A3b). Not surprisingly, the delinquency rate pattern for loans originated during the study period is similar in both samples for the GSEs purchased and the Government loans, given that the sample for these two segments barely changed (compare Table A1b to Table A1a and Table A2b to Table A2a).

Comparing the Other Conventional to the GSE segment with the restricted sample, the ever D90 rate for manufactured home loans purchased by the former are still higher than those purchased by the later; the differences are narrowed overtime from 400-500 basis points during 2009-2012 to 100-200 basis points during 2013-2016 (Table A1b and Table A3b).

Figure 6. Restricted sample: Ever 90-day delinquency rate of Other Conventional loans by year of origination



Notes: Data source is NMDB; other conventional loans include the remaining conventional loans after excluding GSE conventional loans. The up to 100% of AMI sample indicates a subset of all-in other conventional loans for borrowers with application income up to 100% of AMI.

3.2. Average Loan-To-Value (LTV) Ratio At Origination

Many factors contribute to loan performance, one being LTV. Comparing LTV at the time of origination for loans that are ever 90-day delinquent to those that are current as of the end of third quarter 2019, the ever 90-day delinquent loans on average had higher LTV ratios at origination. This is true for site-built and likely real property manufactured loans in all purchaser segments. The Other Conventional segment had some exceptions for loans originated in more recent years (Table 3).

Table 3. Restricted sample: Average LTV at origination

Origination Year	GSE				Government				Total			
	Non-MH		MH		Non-MH		MH		Non-MH		MH	
	Current	D90	Current	D90	Current	D90	Current	D90	Current	D90	Current	D90
2009	65.6	77.3	63.6	77.8	94.0	94.5	91.3	92.8	64.1	75.0	60.9	70.0
2010	66.7	81.4	66.1	81.5	93.9	94.7	92.1	93.0	63.5	72.8	60.3	76.0
2011	67.8	81.7	67.9	69.7	94.0	95.4	91.9	94.6	65.5	73.4	65.5	69.3
2012	73.7	99.2	79.7	93.3	92.9	95.1	91.9	92.2	67.2	72.6	63.0	71.9
2013	74.0	92.4	81.8	94.9	92.7	94.9	91.4	91.8	68.4	68.2	63.3	67.6
2014	75.4	85.2	75.6	81.1	93.4	95.2	91.4	93.5	70.1	73.9	62.6	64.9
2015	73.8	81.3	74.1	96.1	92.5	94.6	91.2	94.1	69.4	70.3	63.7	64.7
2016	73.1	81.6	74.0	87.0	92.1	94.4	89.5	92.7	68.5	70.1	61.7	62.6
2017	75.1	81.7	77.1	91.8	92.7	94.2	91.1	93.5	68.9	65.1	64.0	61.9
2018	76.7	82.3	79.3	87.0	93.4	95.1	95.3	98.6	71.4	61.7	65.6	72.0
2019	77.8	80.4	79.3	94.0	90.7	93.6	92.2	98.0	76.1	58.7	68.2	NA

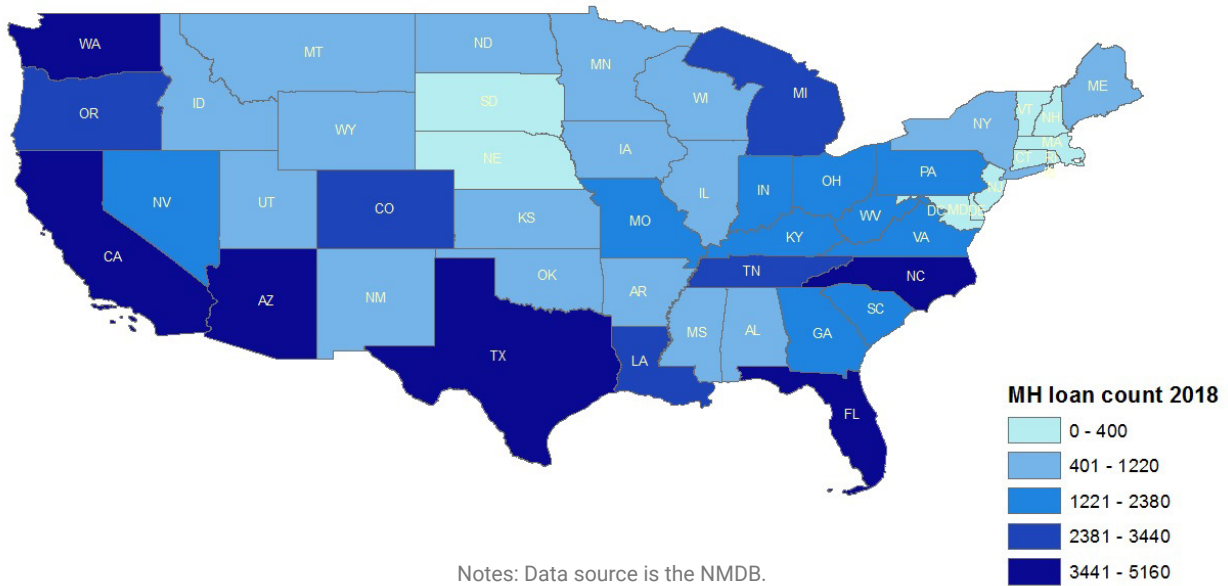
Notes: Data source is the NMDB. GSE refers to conventional loans purchased by the government-sponsored enterprises Freddie Mac and Fannie Mae; this segment excludes government-insured loans for Duty to Serve purposes. Other Conventional comprises the remaining conventional loans, excluding GSE purchases. Government includes FHA, FSA/RHS-insured, and VA-guaranteed loans.

4. Loan Performance by State

For additional perspective, we took a more detailed view into the loan performance for the top five states for manufactured loan originations. Figure 7 shows the number manufactured home loans originated in each state in 2018. States with no or few manufactured home loans are on the Northeastern coast (New Jersey, Massachusetts, Rhode Island, New Hampshire, and Connecticut). Several states with large numbers of manufactured home loans are along the coasts but in the South and West. The top five states for manufactured home loan originations are Texas, California, North Carolina, Washington, and Florida. The remainder of this section compares loan performance in these Top 5 states to performance at the nation level.

As shown in Table 2 as presented earlier, nationally, about 32% of manufactured home loans were titled as personal property. The percentages were comparatively much smaller for North Carolina (0%), California (1%), and Washington (9.3%). Texas was comparable to the nation with about 33%, while Florida's percentage was more than double at about 72%. The majority of personal property manufactured home loans in Texas and Florida were attributed to the Other Conventional segment (Table A5). The comparisons between the Top 5 states and the nation below were made using the restricted sample (with likely real property manufactured home loans only) as described in Section 3 of this report.

Figure 7. Geographic distribution of manufactured home loans originated in 2018



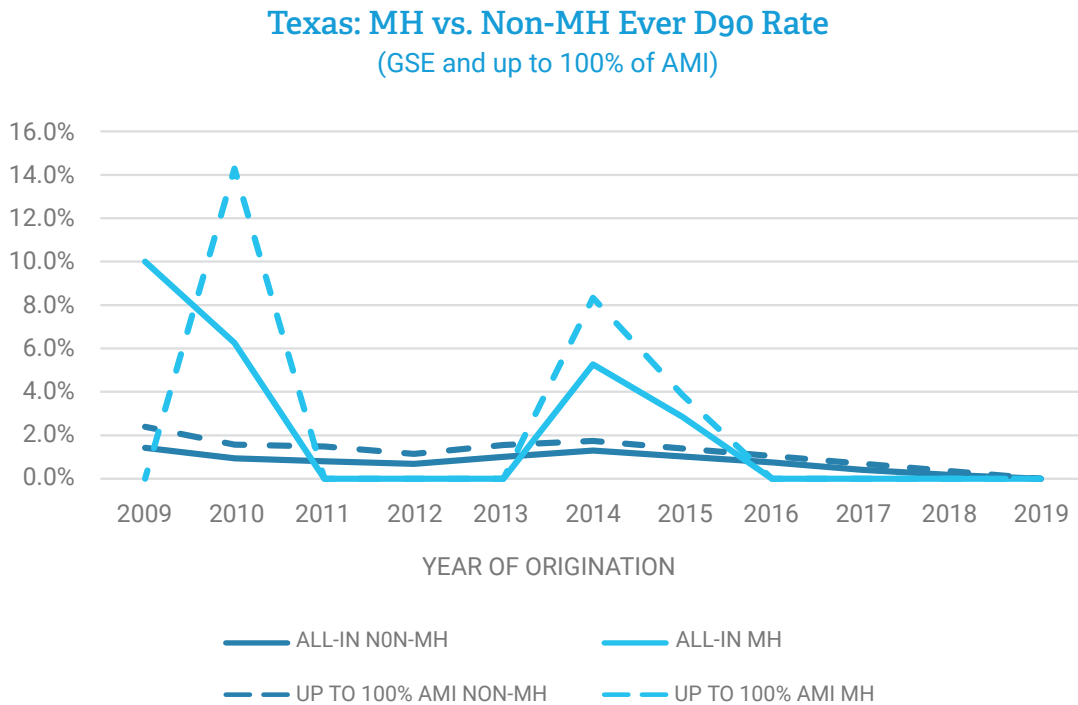
4.1. GSE-purchased manufactured home loans in Top 5 states

At the state level, the delinquency rates of manufactured home loans purchased by the GSEs were much more volatile than the nation average. First of all, we noticed that some origination years had no ever D90 manufactured home loans as of the third quarter of 2019. For example, Texas had no delinquent loans for manufactured home loans originated between 2011 and 2013 (Figure 8; 2016-2019 originations could be too recent to evaluate their performance). This is likely due to the small sample size but may also reflect GSE purchasing strategies.

Furthermore, for origination years with delinquent loans, delinquency rates for manufactured home loans over the years varied much more widely than the nation averages. For loans generated between 2009 and 2019, the ever D90 rate is in the range of 0.2%-3.7% for the nation. The comparative range is 2.9%-10% for Texas, 0.9%-5.7% for California, 2.4%-8.9% for North Carolina, 1.1%-6.3% for Washington, and 2.6%-11.1% for Florida.

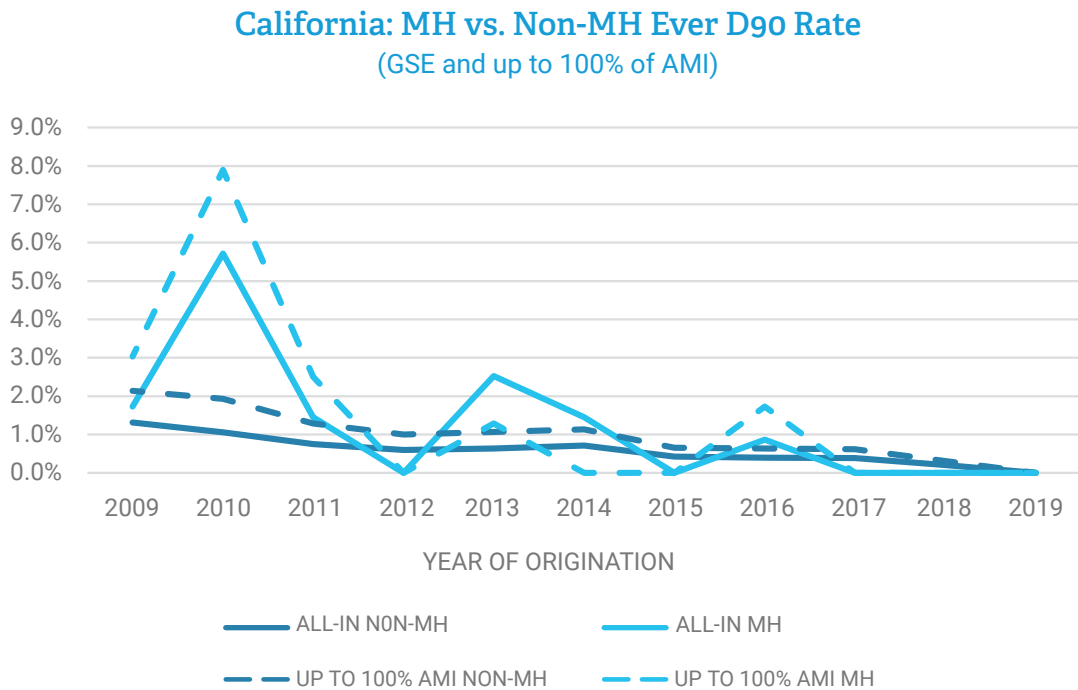
In addition, where the national market experienced a delinquency bump for manufactured home loans in 2014, one or two bumps were apparent for each state at somewhat random origination years. For example, Florida had a bump in the ever D90 rate for manufactured home loans in 2011 and Texas had bumps in 2009 and 2014 (Figure 8-12 and Table A6-A10).

Figure 8. Texas: Ever 90-day delinquency rate of GSE loans by year of origination



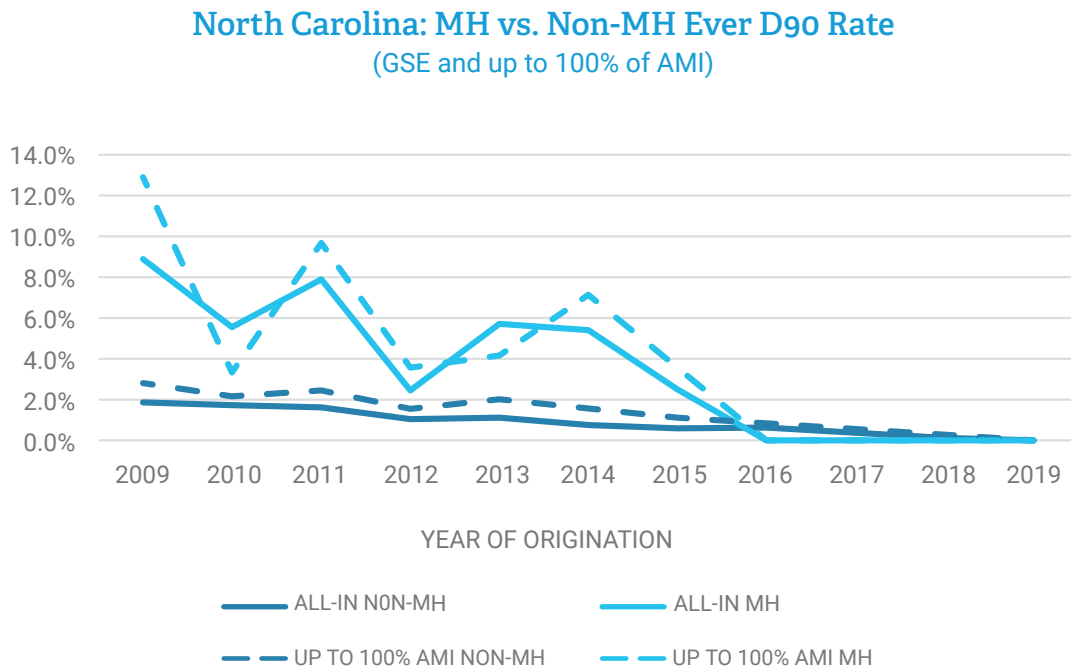
Notes: Data source is NMDB; GSE indicates GSE conventional loans and excludes government-insured loans for DTS purposes. The up to 100% of AMI sample indicates a subset of all-in GSE loans for borrowers with application income up to 100% of AMI.

Figure 9. California: Ever 90-day delinquency rate of GSE loans by year of origination



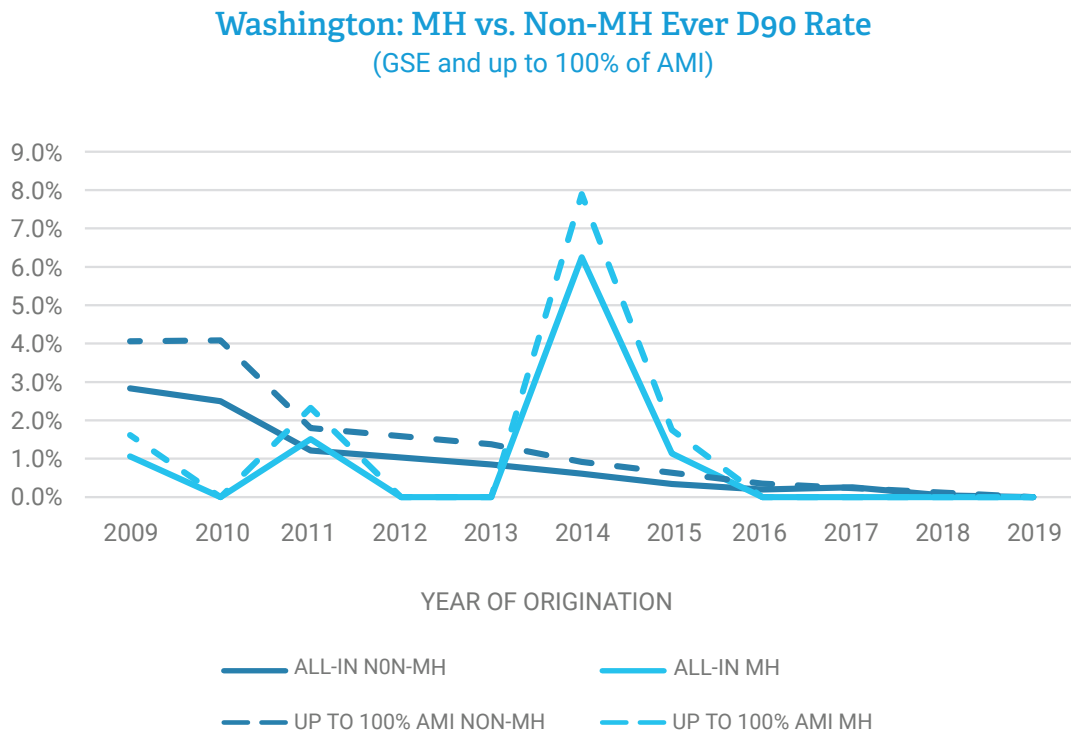
Notes: Data source is NMDB; GSE indicates GSE conventional loans and excludes government-insured loans for DTS purposes. The up to 100% of AMI sample indicates a subset of all-in GSE loans for borrowers with application income up to 100% of AMI.

Figure 10. North Carolina: Ever 90-day delinquency rate of GSE loans by year of origination



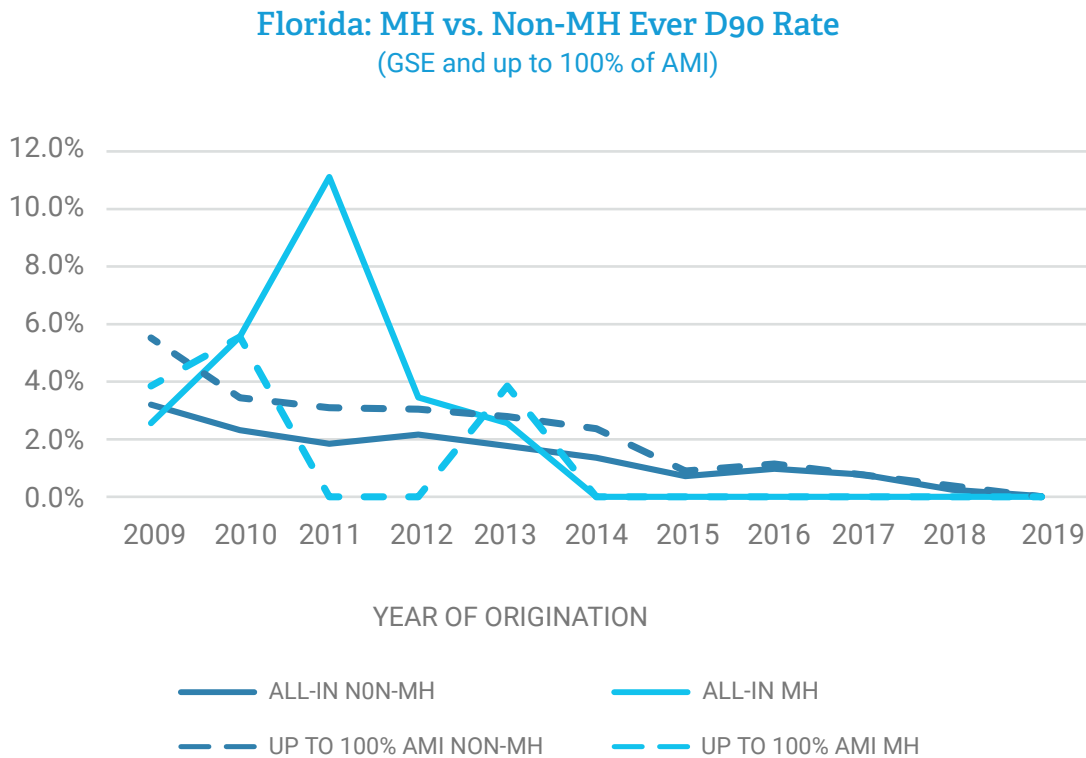
Notes: Data source is NMDB; GSE indicates GSE conventional loans and excludes government-insured loans for DTS purposes. The up to 100% of AMI sample indicates a subset of all-in GSE loans for borrowers with application income up to 100% of AMI.

Figure 11. Washington: Ever 90-day delinquency rate of GSE loans by year of origination



Notes: Data source is NMDB; GSE indicates GSE conventional loans and excludes government-insured loans for DTS purposes. The up to 100% of AMI sample indicates a subset of all-in GSE loans for borrowers with application income up to 100% of AMI.

Figure 12. Florida: Ever 90-day delinquency rate of GSE loans by year of origination



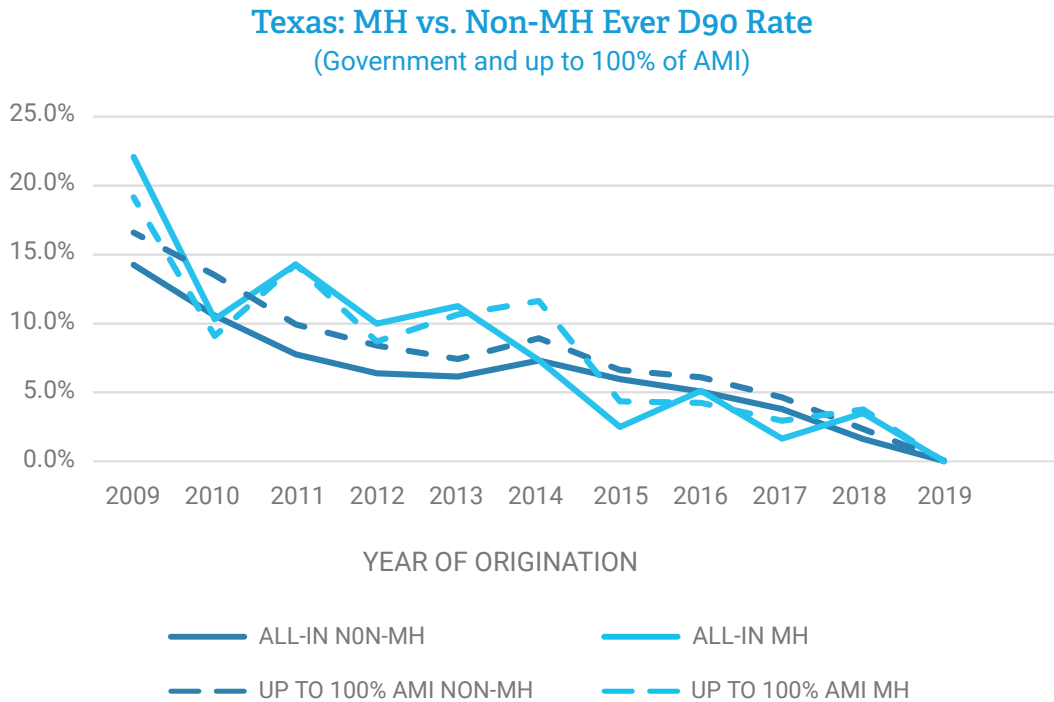
Notes: Data source is NMDb; GSE indicates GSE conventional loans and excludes government-insured loans for DTS purposes. The up to 100% of AMI sample indicates a subset of all-in GSE loans for borrowers with application income up to 100% of AMI.

4.2. Government-insured manufactured home loans in Top 5 states

For Government-insured manufactured home loans, the Top five states have a delinquency rate pattern similar to the nation’s – high ever D90 rates for loans originated before 2013, which declined to below 10% after 2013 or 2014. Furthermore, when compared to site-built home loans, the differences in delinquency rates were much smaller after 2013. However, Washington had the least apparent differences in ever D90 rate between site-built and manufactured home loans since 2009 (Figure 16). In Texas, in more recent years (2014-2017), the ever D90 rate for manufactured home loans was similar to or lower than the rate for site-built home loans (Figure 13).

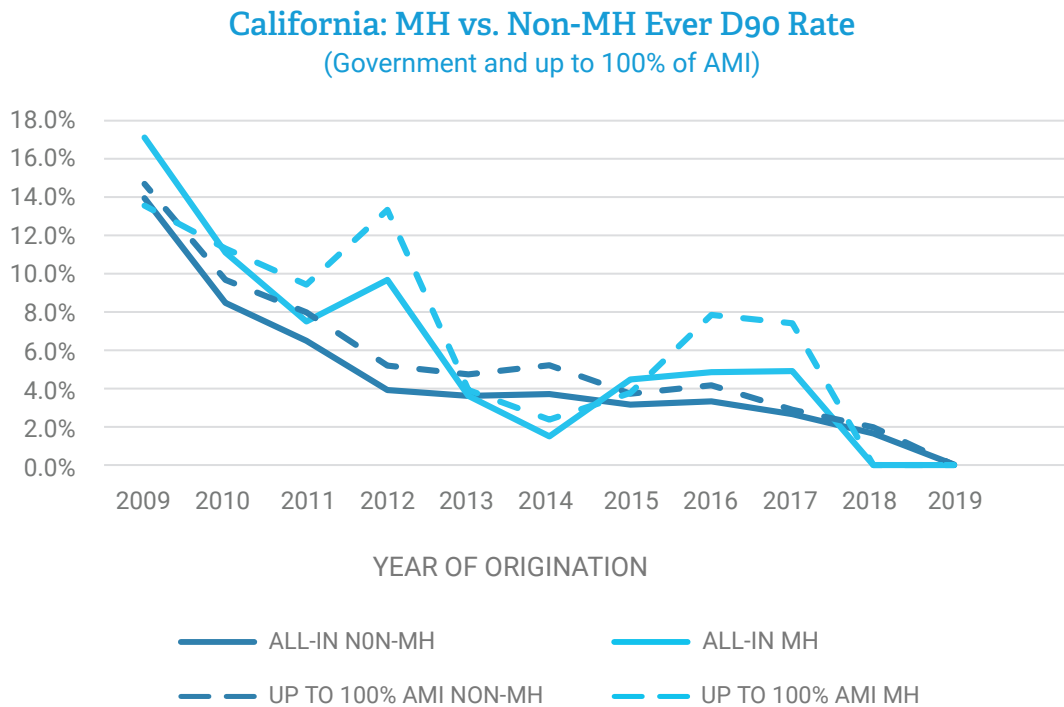
Unlike the GSE segment, most origination years have at least some delinquent loans. The ranges of the ever D90 rate for these states between 2009 and 2019 were as wide as that of the nation (0.3%-22.6%). The comparative range was 3.5%-22.1% for Texas, 1.5%-17.1% for California, 5.1%-25.4% for North Carolina, 3.3%-19% for Washington, and 3.1%-27.1% for Florida (Figure 13-17 and Table A11-A15).

Figure 13. Texas: Ever 90-day delinquency rate of Government loans by year of origination



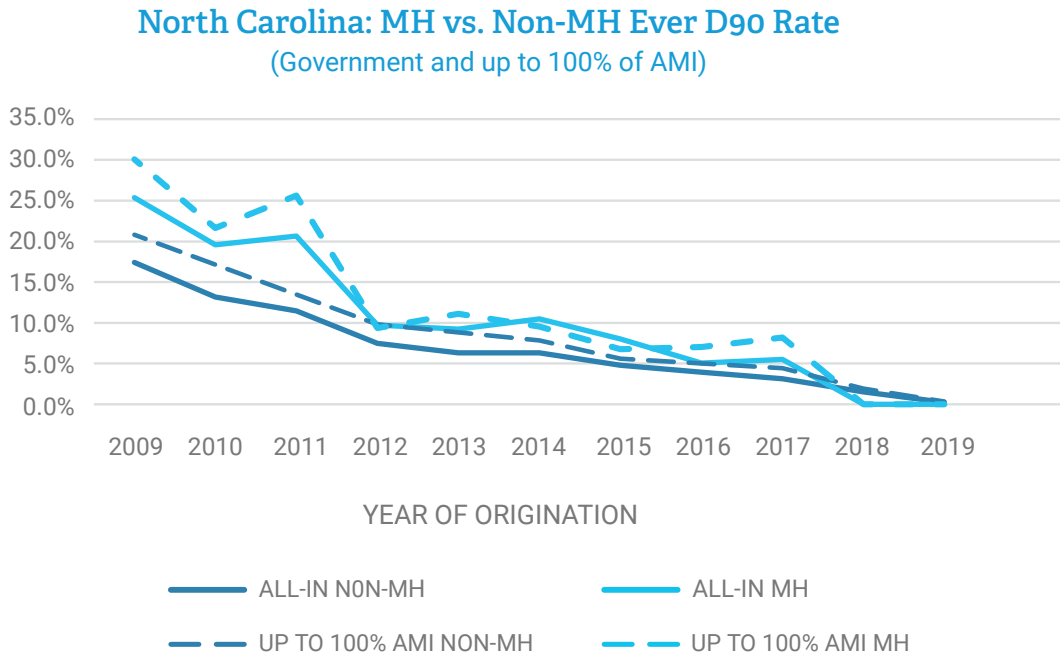
Notes: Data source is NMDB; government loans include FHA, FSA/RHS insured loans and VA guaranteed loans. The up to 100% of AMI sample indicates a subset of all-in government loans for borrowers with application income up to 100% of AMI.

Figure 14. California: Ever 90-day delinquency rate of Government loans by year of origination



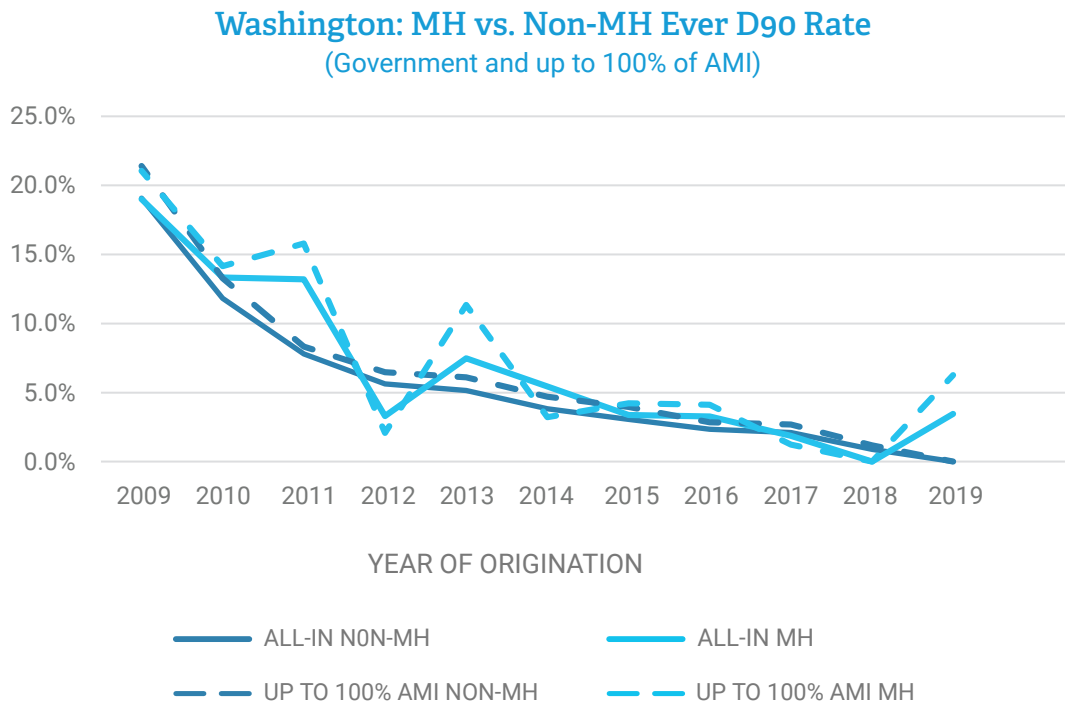
Notes: Data source is NMDB; government loans include FHA, FSA/RHS insured loans and VA guaranteed loans. The up to 100% of AMI sample indicates a subset of all-in government loans for borrowers with application income up to 100% of AMI.

Figure 15. North Carolina: Ever 90-day delinquency rate of Government loans by year of origination



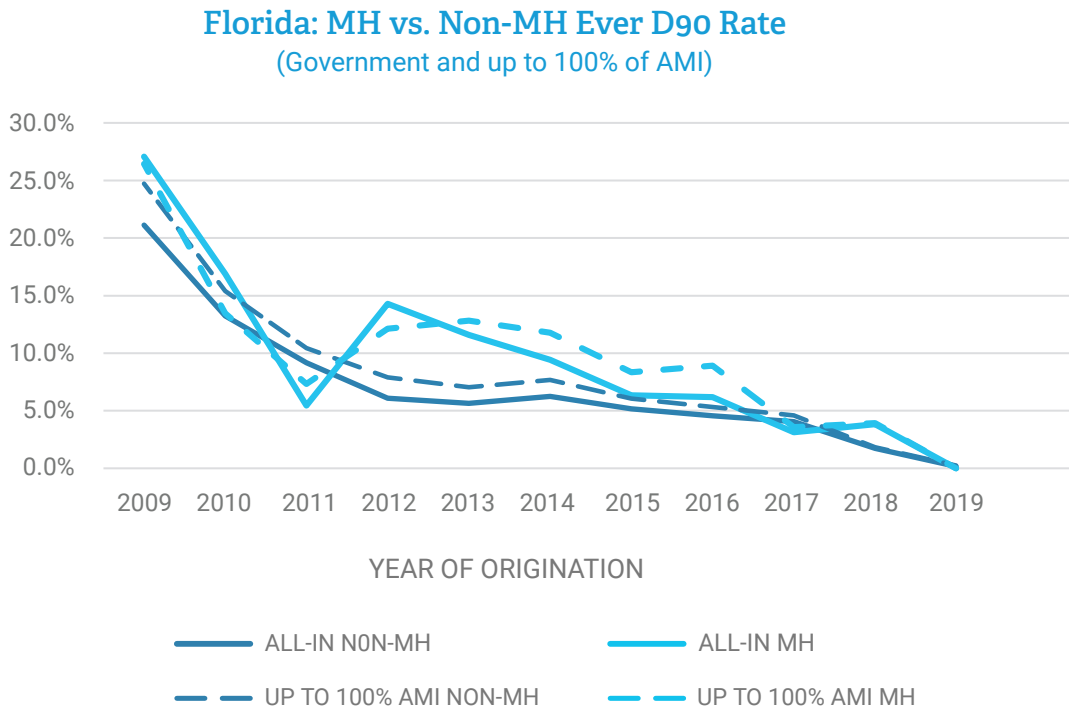
Notes: Data source is NMDB; government loans include FHA, FSA/RHS insured loans and VA guaranteed loans. The up to 100% of AMI sample indicates a subset of all-in government loans for borrowers with application income up to 100% of AMI.

Figure 16. Washington: Ever 90-day delinquency rate of Government loans by year of origination



Notes: Data source is NMDB; government loans include FHA, FSA/RHS insured loans and VA guaranteed loans. The up to 100% of AMI sample indicates a subset of all-in government loans for borrowers with application income up to 100% of AMI.

Figure 17. Florida: Ever 90-day delinquency rate of Government loans by year of origination



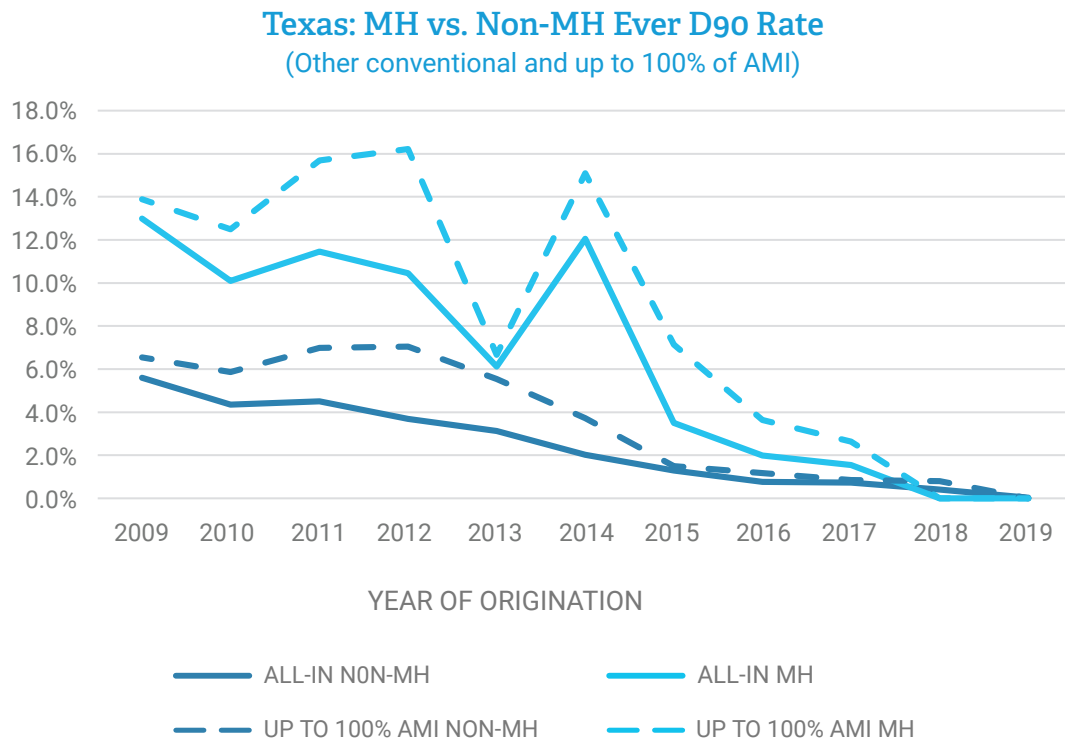
Notes: Data source is NMDB; government loans include FHA, FSA/RHS insured loans and VA guaranteed loans. The up to 100% of AMI sample indicates a subset of all-in government loans for borrowers with application income up to 100% of AMI.

4.3. Other conventional manufactured home loans in top 5 states

For Other Conventional manufactured home loans, these Top five states have delinquency rate patterns different from that of the nation. Nationally, the range for ever D90 rate of manufactured home loans is 0.8%-9.2%, with a generally steady decline as the origination year gets more recent. Several states have bumps in their delinquency rates of manufactured home loans, which may or may not have been consistent with their bumps observed in the GSE-purchased market. For example, delinquency increases in 2009 and 2014 in Texas and one in 2011 in Florida were consistent with the bumps observed in their corresponding GSE market. In contrast, Washington had increases in 2012 and 2017, not during the same time frame as the 2014 bump observed in its GSE market (Figure 18, 21 and 22).

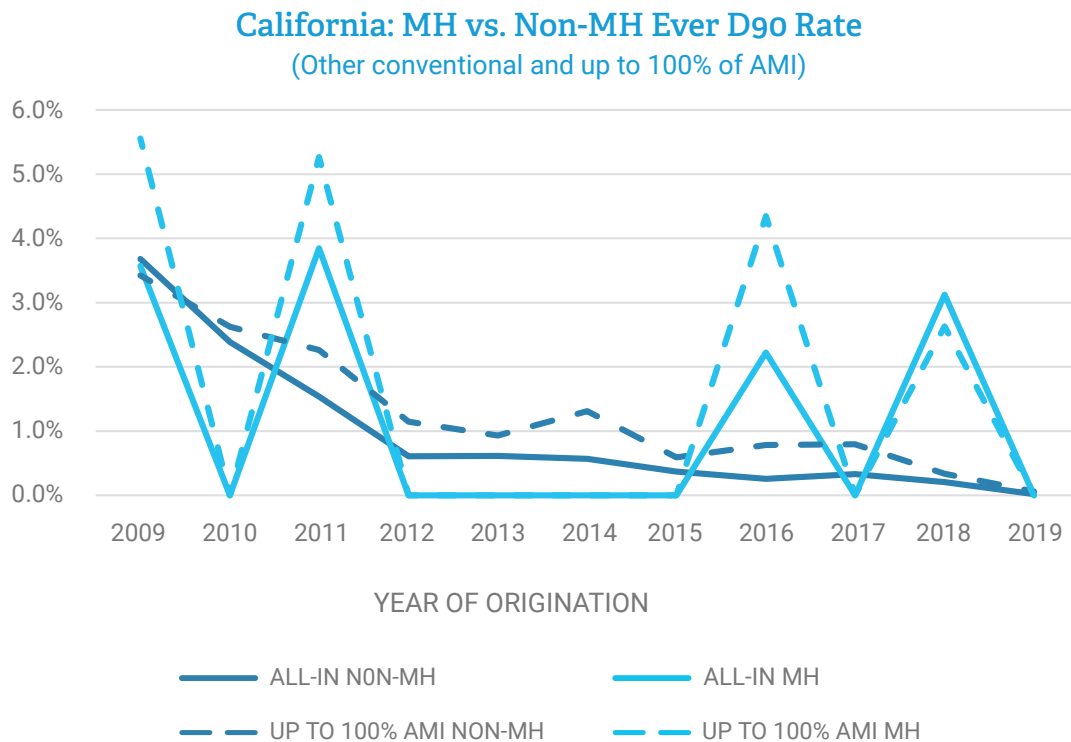
In addition, California and Washington both have many origination years with ever D90 rate of 0% as of the third quarter of 2019. However, for origination years with delinquent loans, the range of ever D90 rates for California (2.2%-3.8%) is much smaller than that of Washington (2.2%-8.1%) and the other three states. For the other states, the ever D90 range rate over our study period was 1.5%-13% for Texas, 2.2%-20.9% for North Carolina, and 1.9%-14.3% for Florida (Figure 18-22 and Table A16-A20).

Figure 18. Texas: Ever 90-day delinquency rate of Other conventional loans by year of origination



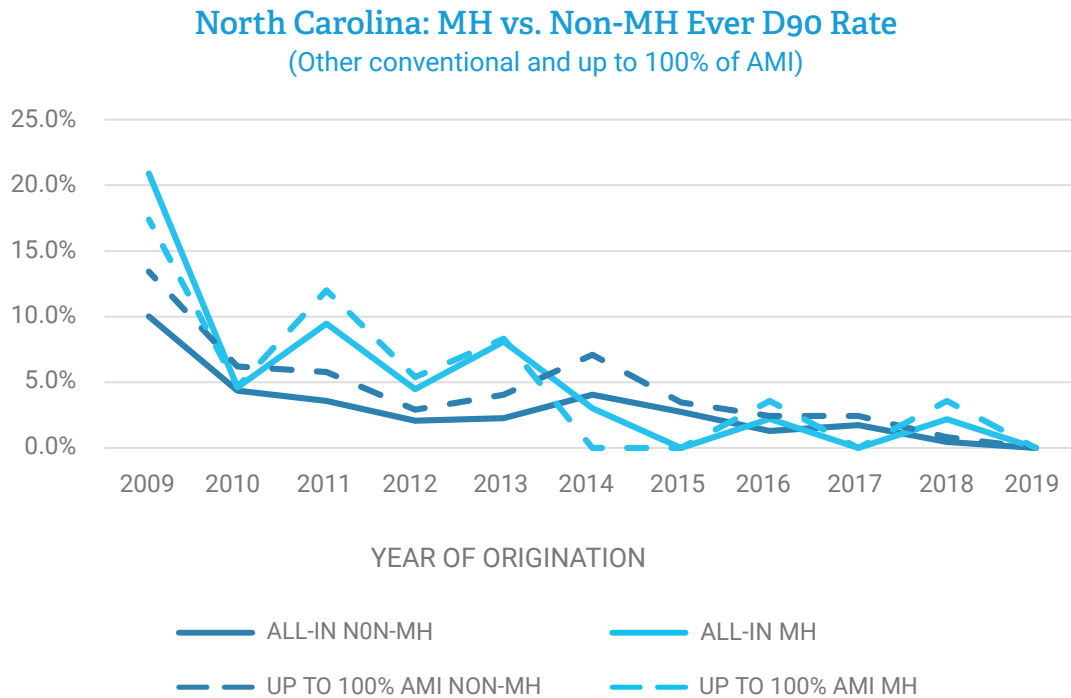
Notes: Data source is NMDB; other conventional loans include the remaining conventional loans after excluding GSE conventional loans. The up to 100% of AMI sample indicates a subset of all-in other conventional loans for borrowers with application income up to 100% of AMI.

Figure 19. California: Ever 90-day delinquency rate of Other conventional loans by year of origination



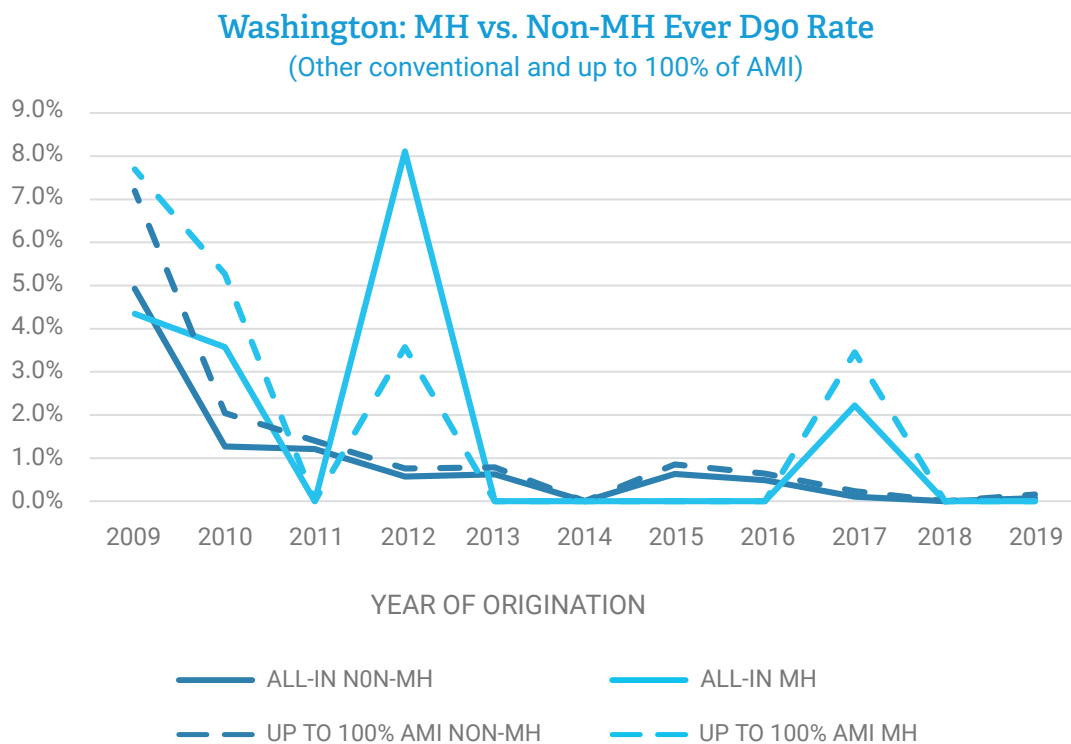
Notes: Data source is NMDB; other conventional loans include the remaining conventional loans after excluding GSE conventional loans. The up to 100% of AMI sample indicates a subset of all-in other conventional loans for borrowers with application income up to 100% of AMI.

Figure 20. North Carolina: Ever 90-day delinquency rate of Other conventional loans by year of origination



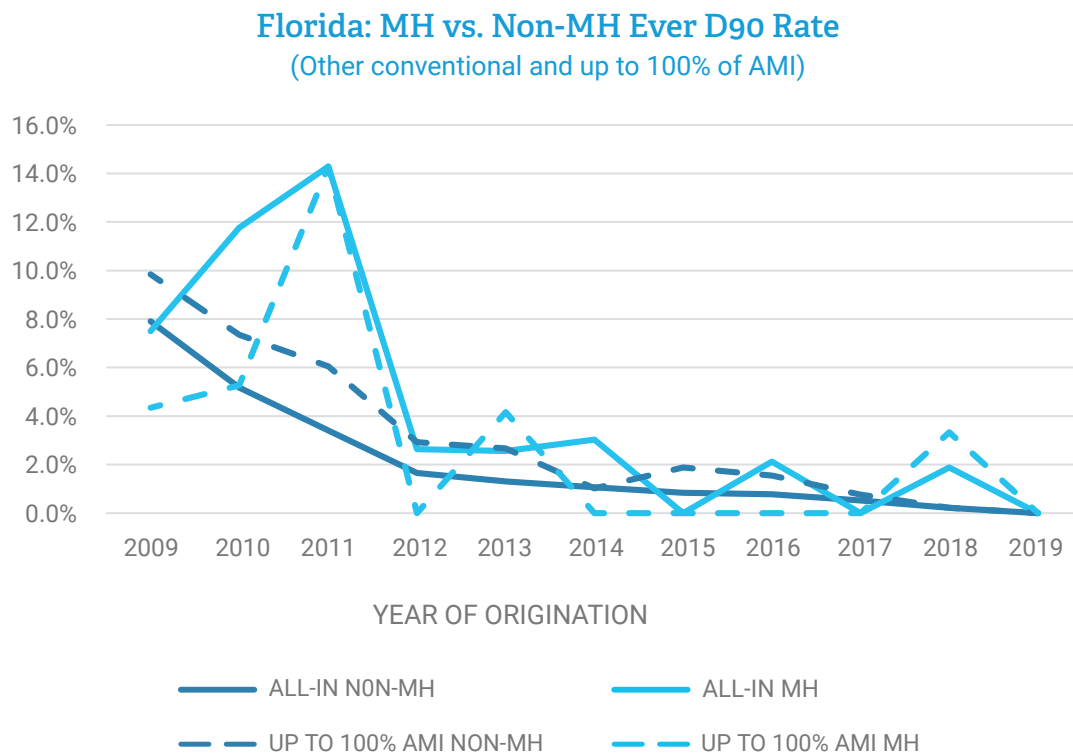
Notes: Data source is NMDB; other conventional loans include the remaining conventional loans after excluding GSE conventional loans. The up to 100% of AMI sample indicates a subset of all-in other conventional loans for borrowers with application income up to 100% of AMI.

Figure 21. Washington: Ever 90-day delinquency rate of Other conventional loans by year of origination



Notes: Data source is NMDB; other conventional loans include the remaining conventional loans after excluding GSE conventional loans. The up to 100% of AMI sample indicates a subset of all-in other conventional loans for borrowers with application income up to 100% of AMI.

Figure 22. Florida: Ever 90-day delinquency rate of Other conventional loans by year of origination



Notes: Data source is NMDB; other conventional loans include the remaining conventional loans after excluding GSE conventional loans. The up to 100% of AMI sample indicates a subset of all-in other conventional loans for borrowers with application income up to 100% of AMI.

5. Conclusion

The GSEs have played an increasing role in manufactured housing finance market over the years in terms of the number of loans purchased, the percentage of manufactured home loans relative to its total loan purchases, and market share in the manufactured home loan space. At the same time, the delinquency rates on GSE-purchased manufactured home loans generally have been lower than in the Government and Other Conventional segments.

Our research also uncovered areas in which further investigation would provide valuable insights – for the GSEs for and the broader manufactured housing finance industry. First, in the GSE segment, there is a delinquency bump in 2014 at the nation level but bumps occurred in different years at the state level. What caused these bumps at different geographic levels and times, and are they correlated? For some states, those increases occurred for the same origination years as the bumps observed in the Other Conventional segment. In those cases, it might tell a more state-specific story rather than a secondary market segment story.

Second, although the Government segment’s delinquency rate is the highest among the three segments, the performance levels of its site-built and manufactured home loans have converged in more recent years at the national level. For some states, such as Washington, the performance of site-built and manufactured home loans was close throughout the study period. For Texas, in some recent years, the performance of manufactured home loans surpassed that of the site-built loans. California seems to have relatively better loan performance than the other states in the Top 5 and the nation in all three market segments.

Finally, being able to distinguish between personal property and real property manufactured home loans would allow for more precise study in the future. Differences in loan performance may be explained by differences in loan characteristics that have not been fully addressed in this analysis.

Factory-built homes are an important option for many households. Freddie Mac’s increasing involvement, expertise, and insights in this space help create more opportunities for affordable, sustainable homeownership.

Exhibit A. Manufactured Home Loan Performance in High-needs Rural Areas

High-needs rural areas are rural counties located in the Middle Appalachia region, the Lower Mississippi Delta region and Persistent Poverty region. The analysis on the high-needs rural areas uses the restricted sample (with likely real property manufactured home loans only, see Section 3 in the full report).

In the high-needs rural areas, the percentage of manufactured home loans purchased by the GSEs increased from 1.4% in 2009 to 4.7% in 2018 (Table 1), consistent with the GSEs' upward trend of purchasing in this space nationwide. The delinquency rate in the high-needs rural areas are slightly higher than the nation overall, both for the site-built and manufactured home loans in three distinct market segments.

Table 1. MH loan counts and percentages of MH loans by purchaser in high-needs rural areas

Origination Year	GSE		Government		Other Conventional		Total	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
2009	1,200	1.4%	4,540	7.1%	6,240	12.5%	11,980	6.0%
2010	700	1.0%	2,880	5.8%	5,780	12.6%	9,360	5.7%
2011	820	1.4%	3,620	7.9%	5,080	12.2%	9,520	6.5%
2012	1,120	1.5%	2,740	5.4%	4,880	10.8%	8,740	5.1%
2013	1,180	1.7%	3,200	6.7%	3,600	8.0%	7,980	4.9%
2014	1,100	2.6%	2,760	6.3%	4,060	12.3%	7,920	6.7%
2015	1,200	2.5%	3,000	5.8%	4,840	13.3%	9,040	6.6%
2016	1,200	2.3%	3,000	5.1%	4,340	12.3%	8,540	5.8%
2017	1,720	3.4%	3,700	6.2%	4,080	11.8%	9,500	6.5%
2018	2,300	4.7%	4,120	7.6%	5,260	12.7%	11,680	8.1%
2019	900	4.0%	2,140	6.6%	3,580	10.4%	6,620	7.4%

Notes: Data source is the NMDB. GSE refers to conventional loans purchased by the government-sponsored enterprises Freddie Mac and Fannie Mae; this segment excludes government-insured loans for Duty to Serve purposes. Other Conventional comprises the remaining conventional loans, excluding GSE purchases. Government includes FHA, FSA/RHS-insured, and VA-guaranteed loans.

Table 2. GSE and up to 100% of AMI loans: Ever 90-day and 120-day delinquency rates by manufactured home status in high-needs rural areas

Origination Year	GSE		All-In				Up to 100% AMI			
			D90		D120		D90		D120	
	Non-MH	MH	Non-MH	MH	Non-MH	MH	Non-MH	MH		
2009	3.0%	5.0%	2.7%	5.0%	5.1%	8.1%	4.3%	8.1%		
2010	2.2%	2.9%	1.9%	3.1%	2.8%	0.0%	2.7%	0.0%		
2011	1.8%	7.3%	1.5%	3.2%	2.1%	9.1%	2.7%	4.5%		
2012	1.7%	3.6%	1.4%	2.4%	1.7%	6.1%	2.0%	6.1%		
2013	1.8%	1.7%	1.5%	3.4%	1.9%	3.3%	2.9%	3.3%		
2014	1.7%	3.6%	1.2%	2.6%	1.7%	6.9%	1.7%	6.9%		
2015	0.9%	3.3%	0.7%	1.2%	1.1%	0.0%	1.0%	0.0%		
2016	1.0%	0.0%	0.8%	1.7%	0.8%	0.0%	1.3%	0.0%		
2017	0.6%	1.2%	0.6%	1.1%	0.6%	2.0%	1.0%	2.0%		
2018	0.4%	1.7%	0.3%	0.8%	0.3%	3.6%	0.6%	1.8%		
2019	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		

Notes: Data source is NMDB; GSE indicates GSE conventional loans and excludes government-insured loans for DTS purposes. The up to 100% of AMI sample indicates a subset of all-in GSE loans for borrowers with application income up to 100% of AMI.

Table 3. Government and up to 100% of AMI loans: Ever 90-day and 120-day delinquency rates by manufactured home status in high-needs rural areas

Government	All-In				Up to 100% AMI			
	D90		D120		D90		D120	
Origination Year	Non-MH	MH	Non-MH	MH	Non-MH	MH	Non-MH	MH
2009	21.0%	28.6%	18.3%	25.1%	24.2%	27.0%	21.2%	23.4%
2010	16.9%	21.5%	15.1%	20.8%	21.3%	22.2%	19.4%	22.2%
2011	13.8%	20.4%	11.6%	19.3%	18.2%	27.2%	15.0%	26.4%
2012	11.3%	14.6%	9.9%	12.4%	13.5%	13.3%	12.0%	12.0%
2013	9.0%	7.5%	7.8%	5.0%	11.6%	8.6%	9.9%	5.4%
2014	9.9%	13.0%	8.1%	10.1%	12.0%	10.1%	10.0%	7.9%
2015	7.5%	8.0%	5.9%	7.3%	9.0%	6.8%	6.8%	6.8%
2016	5.1%	5.3%	3.5%	4.7%	6.3%	6.5%	4.7%	6.5%
2017	3.6%	4.9%	2.7%	3.8%	4.2%	3.4%	3.1%	3.4%
2018	1.5%	2.9%	0.8%	2.4%	1.6%	2.6%	0.9%	2.6%
2019	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Notes: Data source is NMDB; government loans include FHA, FSA/RHS insured loans and VA guaranteed loans. The up to 100% of AMI sample indicates a subset of all-in government loans for borrowers with application income up to 100% of AMI.

Table 4. Other conventional and up to 100% of AMI loans: Ever 90-day and 120-day delinquency rates by manufactured home status in high-needs rural areas

Government	All-In				Up to 100% AMI			
	D90		D120		D90		D120	
Origination Year	Non-MH	MH	Non-MH	MH	Non-MH	MH	Non-MH	MH
2009	8.1%	9.6%	6.9%	7.1%	8.6%	10.7%	7.5%	8.6%
2010	4.6%	9.0%	3.6%	8.3%	6.6%	11.6%	5.1%	11.6%
2011	4.3%	8.3%	3.5%	6.3%	6.0%	8.2%	4.8%	6.8%
2012	3.0%	6.6%	2.1%	4.9%	4.2%	9.2%	3.3%	6.2%
2013	3.4%	7.2%	2.8%	5.0%	4.7%	8.3%	4.0%	5.2%
2014	2.8%	3.9%	2.3%	3.0%	3.7%	3.8%	2.5%	3.8%
2015	2.4%	4.5%	1.5%	3.3%	2.8%	5.5%	1.8%	4.1%
2016	1.8%	1.8%	1.5%	1.4%	2.4%	1.0%	2.0%	1.0%
2017	1.3%	2.0%	1.0%	1.5%	1.6%	3.5%	1.6%	2.6%
2018	0.7%	1.5%	0.5%	1.1%	0.9%	1.3%	0.6%	0.6%
2019	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%

Notes: Data source is NMDB; other conventional loans include the remaining conventional loans after excluding GSE conventional loans. The up to 100% of AMI sample indicates a subset of all-in other conventional loans for borrowers with application income up to 100% of AMI.

Appendix

Table A1a. GSE and up to 100% of AMI loans: ever 90-day and 120-day delinquency rates by manufactured home status

GSE	All-In				Up to 100% AMI			
	D90		D120		D90		D120	
Origination Year	Non-MH	MH	Non-MH	MH	Non-MH	MH	Non-MH	MH
2009	2.1%	3.7%	1.9%	3.3%	3.5%	4.6%	3.1%	4.1%
2010	1.7%	2.9%	1.4%	2.4%	2.8%	3.1%	2.4%	2.3%
2011	1.3%	2.5%	1.1%	2.2%	2.1%	2.7%	1.8%	2.4%
2012	1.1%	1.5%	0.9%	1.0%	1.7%	1.8%	1.5%	1.1%
2013	1.2%	2.3%	1.0%	2.1%	1.9%	2.7%	1.6%	2.3%
2014	1.1%	3.1%	0.9%	2.7%	1.7%	3.7%	1.4%	3.2%
2015	0.7%	1.8%	0.6%	1.5%	1.1%	1.8%	0.9%	1.6%
2016	0.5%	0.6%	0.4%	0.5%	0.8%	0.8%	0.6%	0.6%
2017	0.4%	0.7%	0.3%	0.7%	0.6%	0.9%	0.5%	0.9%
2018	0.2%	0.5%	0.1%	0.4%	0.3%	0.8%	0.2%	0.6%
2019	0.0%	0.2%	0.0%	0.2%	0.0%	0.4%	0.0%	0.4%

Notes: Data source is NMDB; GSE indicates GSE conventional loans and excludes government-insured loans for DTS purposes. The up to 100% of AMI sample indicates a subset of all-in GSE loans for borrowers with application income up to 100% of AMI.

Table A1b. Restricted sample for GSE and up to 100% of AMI loans: ever 90-day and 120-day delinquency rates by manufactured home status

GSE	All-In				Up to 100% AMI			
	D90		D120		D90		D120	
Origination Year	Non-MH	MH	Non-MH	MH	Non-MH	MH	Non-MH	MH
2009	2.1%	3.7%	1.9%	3.3%	3.5%	4.6%	3.1%	4.2%
2010	1.7%	2.9%	1.4%	2.4%	2.8%	3.1%	2.5%	2.3%
2011	1.3%	2.4%	1.1%	2.2%	2.1%	2.5%	1.8%	2.2%
2012	1.1%	1.5%	0.9%	1.0%	1.7%	1.8%	1.5%	1.1%
2013	1.2%	2.3%	1.0%	2.1%	1.9%	2.7%	1.6%	2.3%
2014	1.1%	3.1%	0.9%	2.7%	1.7%	3.7%	1.4%	3.2%
2015	0.7%	1.8%	0.6%	1.5%	1.1%	1.8%	0.9%	1.6%
2016	0.5%	0.6%	0.4%	0.5%	0.8%	0.8%	0.6%	0.6%
2017	0.4%	0.7%	0.3%	0.7%	0.6%	0.9%	0.5%	0.9%
2018	0.2%	0.5%	0.1%	0.4%	0.3%	0.8%	0.2%	0.6%
2019	0.0%	0.2%	0.0%	0.2%	0.0%	0.4%	0.0%	0.4%

Notes: Data source is NMDB; GSE indicates GSE conventional loans and excludes government-insured loans for DTS purposes. The up to 100% of AMI sample indicates a subset of all-in GSE loans for borrowers with application income up to 100% of AMI.

Table A2. Government and up to 100% of AMI loans: ever 90-day and 120-day delinquency rates by manufactured home status

Government	All-In				Up to 100% AMI			
	D90		D120		D90		D120	
	Non-MH	MH	Non-MH	MH	Non-MH	MH	Non-MH	MH
2009	18.1%	22.5%	16.4%	20.1%	20.6%	23.2%	18.7%	20.9%
2010	12.2%	16.5%	10.7%	15.3%	15.0%	17.2%	13.3%	15.8%
2011	9.3%	15.0%	8.0%	13.1%	11.5%	18.4%	9.8%	15.9%
2012	6.6%	10.1%	5.6%	8.6%	8.5%	9.9%	7.1%	8.7%
2013	6.5%	7.2%	5.5%	6.1%	8.1%	8.4%	6.8%	7.1%
2014	6.4%	7.9%	5.4%	6.6%	8.0%	7.5%	6.6%	6.1%
2015	5.2%	5.6%	4.2%	4.8%	6.3%	5.5%	5.0%	4.9%
2016	4.4%	3.8%	3.4%	2.8%	5.3%	4.5%	4.3%	3.6%
2017	3.5%	3.8%	2.5%	2.7%	4.1%	4.5%	3.1%	3.3%
2018	1.7%	2.0%	1.1%	1.1%	2.1%	2.0%	1.4%	1.2%
2019	0.1%	0.3%	0.1%	0.0%	0.1%	0.5%	0.1%	0.0%

Notes: Data source is NMDB; government loans include FHA, FSA/RHS insured loans and VA guaranteed loans. The up to 100% of AMI sample indicates a subset of all-in government loans for borrowers with application income up to 100% of AMI.

Table A2b. Restricted sample for Government and up to 100% of AMI loans: ever 90-day and 120-day delinquency rates by manufactured home status

Government	All-In				Up to 100% AMI			
	D90		D120		D90		D120	
	Non-MH	MH	Non-MH	MH	Non-MH	MH	Non-MH	MH
2009	18.1%	22.6%	16.4%	20.2%	20.6%	23.3%	18.7%	20.9%
2010	12.2%	16.6%	10.7%	15.3%	15.0%	17.3%	13.3%	16.0%
2011	9.3%	14.9%	8.0%	13.0%	11.5%	18.5%	9.8%	15.9%
2012	6.6%	10.0%	5.6%	8.5%	8.5%	9.9%	7.1%	8.6%
2013	6.5%	7.1%	5.5%	6.1%	8.1%	8.3%	6.8%	7.1%
2014	6.4%	7.6%	5.3%	6.5%	7.9%	7.1%	6.6%	6.0%
2015	5.2%	5.5%	4.2%	4.7%	6.3%	5.5%	5.0%	4.9%
2016	4.4%	3.8%	3.4%	2.8%	5.3%	4.6%	4.3%	3.8%
2017	3.4%	3.8%	2.5%	2.7%	4.1%	4.5%	3.0%	3.3%
2018	1.7%	2.0%	1.1%	1.1%	2.0%	2.0%	1.4%	1.2%
2019	0.1%	0.3%	0.1%	0.0%	0.1%	0.5%	0.1%	0.0%

Notes: Data source is NMDB; government loans include FHA, FSA/RHS insured loans and VA guaranteed loans. The up to 100% of AMI sample indicates a subset of all-in government loans for borrowers with application income up to 100% of AMI.

Table A3a. Other conventional and up to 100% of AMI loans: ever 90-day and 120-day delinquency rates by manufactured home status

Other Conventional	All-In				Up to 100% AMI			
	D90		D120		D90		D120	
	Non-MH	MH	Non-MH	MH	Non-MH	MH	Non-MH	MH
Origination Year								
2009	5.8%	9.6%	5.0%	7.9%	6.8%	10.1%	5.9%	8.5%
2010	3.7%	9.7%	3.1%	8.5%	5.0%	10.2%	4.2%	9.1%
2011	2.9%	9.1%	2.5%	7.6%	4.0%	10.1%	3.4%	8.3%
2012	1.9%	8.0%	1.5%	6.9%	3.0%	9.0%	2.5%	8.1%
2013	1.8%	8.6%	1.5%	7.0%	2.7%	10.2%	2.2%	8.5%
2014	1.6%	6.4%	1.2%	5.4%	2.4%	7.3%	1.9%	6.4%
2015	1.6%	6.3%	1.3%	5.3%	2.4%	7.6%	2.0%	6.4%
2016	1.3%	4.8%	1.0%	4.3%	2.0%	5.1%	1.6%	4.4%
2017	1.2%	3.3%	1.0%	2.6%	1.9%	4.0%	1.5%	3.1%
2018	0.5%	1.5%	0.4%	1.1%	0.7%	1.7%	0.6%	1.3%
2019	0.1%	0.1%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%

Notes: Data source is NMDb; other conventional loans include the remaining conventional loans after excluding GSE conventional loans. The up to 100% of AMI sample indicates a subset of all-in other conventional loans for borrowers with application income up to 100% of AMI.

Table A3b. Restricted sample for other conventional and up to 100% of AMI loans: ever 90-day and 120-day delinquency rates by manufactured home status

Other Conventional	All-In				Up to 100% AMI			
	D90		D120		D90		D120	
	Non-MH	MH	Non-MH	MH	Non-MH	MH	Non-MH	MH
Origination Year								
2009	5.4%	9.2%	4.7%	7.3%	6.4%	8.7%	5.5%	7.3%
2010	3.5%	7.4%	2.9%	6.6%	4.7%	8.0%	4.0%	7.6%
2011	2.6%	7.2%	2.2%	5.8%	3.7%	7.1%	3.1%	5.5%
2012	1.7%	5.1%	1.4%	4.0%	2.8%	5.8%	2.3%	4.6%
2013	1.7%	4.1%	1.3%	3.2%	2.5%	4.4%	2.0%	3.6%
2014	1.5%	3.1%	1.1%	2.3%	2.1%	3.3%	1.6%	3.0%
2015	1.1%	2.5%	0.8%	1.9%	1.6%	3.1%	1.2%	2.3%
2016	0.7%	1.9%	0.5%	1.5%	1.2%	2.2%	0.9%	1.8%
2017	0.6%	1.4%	0.4%	0.7%	1.0%	2.2%	0.7%	1.2%
2018	0.3%	0.8%	0.2%	0.4%	0.5%	0.8%	0.3%	0.4%
2019	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Notes: Data source is NMDb; other conventional loans include the remaining conventional loans after excluding GSE conventional loans. The up to 100% of AMI sample indicates a subset of all-in other conventional loans for borrowers with application income up to 100% of AMI.

Table A4. Average LTV at origination

Origination Year	GSE				Government				Other Conventional			
	Non-MH		MH		Non-MH		MH		Non-MH		MH	
	Current	D90	Current	D90	Current	D90	Current	D90	Current	D90	Current	D90
2009	65.6	77.3	63.5	77.8	93.9	94.5	90.8	92.6	62.6	72.3	52.3	59.6
2010	66.7	81.4	66.1	81.5	93.8	94.6	91.4	93.0	62.5	69.8	56.1	66.3
2011	66.7	81.7	67.8	69.2	93.9	95.3	90.7	93.2	64.8	69.0	59.6	63.2
2012	73.7	99.2	79.7	93.3	92.9	95.0	91.8	90.9	66.7	70.1	57.5	64.5
2013	73.9	92.4	81.8	94.9	92.6	94.9	91.2	90.1	67.6	64.2	56.9	61.8
2014	75.4	85.2	75.5	81.1	93.3	95.1	91.2	92.6	69.2	68.7	55.9	58.9
2015	73.8	81.3	74.1	96.1	92.5	94.6	90.9	94.0	65.4	46.9	51.9	47.0
2016	73.1	81.5	74.0	87.0	92.0	94.4	89.3	92.7	65.0	41.7	47.7	39.5
2017	75.1	81.7	77.0	91.8	92.7	94.1	90.9	92.4	65.7	35.5	54.4	47.9
2018	76.6	82.4	79.3	87.0	93.3	94.8	94.8	98.6	67.9	38.6	54.0	34.7
2019	77.8	80.4	79.3	94.0	90.6	93.6	92.1	98.0	73.3	29.7	57.9	5.0

Notes: Data source is the NMDB. GSE refers to conventional loans purchased by the government-sponsored enterprises Freddie Mac and Fannie Mae; this segment excludes government-insured loans for Duty to Serve purposes. Other Conventional comprises the remaining conventional loans, excluding GSE purchases. Government includes FHA, FSA/RHS-insured, and VA-guaranteed loans.

Table A5. Percentages of loans for manufactured home titled as personal and real property by purchaser type in top five states with largest number of manufactured homes

State	Purchaser Type	Personal	Real	NA
California	GSE	1.4%	84.8%	13.8%
	Ginnie Mae	0.1%	92.9%	7.1%
	Other	1.5%	53.8%	44.7%
	Total	1.0%	75.1%	23.9%
Florida	GSE	0.9%	93.7%	5.4%
	Ginnie Mae	0.2%	99.3%	0.4%
	Other	80.1%	15.9%	4.0%
	Total	71.7%	24.5%	3.8%
North Carolina	GSE	0.0%	99.9%	0.1%
	Ginnie Mae	0.0%	100.0%	0.0%
	Other	0.0%	96.5%	3.4%
	Total	0.0%	98.5%	1.5%
Texas	GSE	0.0%	99.3%	0.7%
	Ginnie Mae	0.0%	100.0%	0.0%
	Other	60.2%	31.5%	8.3%
	Total	32.7%	62.7%	4.6%
Washington	GSE	0.2%	97.0%	2.8%
	Ginnie Mae	0.0%	100.0%	0.0%
	Other	18.6%	72.4%	9.0%
	Total	9.3%	85.2%	5.5%

Notes: Data source is Home Mortgage Disclosure Data (HMDA). Restrictions on the sample are single family (1-4 units), conforming, owner occupied and non-HOEPA loans.

Table A6. Texas: GSE and up to 100% of AMI loans: ever 90-day and 120-day delinquency rates by manufactured home status

GSE	All-In				Up to 100% AMI			
	D90		D120		D90		D120	
Origination Year	Non-MH	MH	Non-MH	MH	Non-MH	MH	Non-MH	MH
2009	1.4%	10.0%	1.1%	10.0%	2.4%	0.0%	2.0%	0.0%
2010	0.9%	6.3%	0.7%	0.0%	1.6%	14.3%	1.1%	0.0%
2011	0.8%	0.0%	0.6%	0.0%	1.5%	0.0%	1.0%	0.0%
2012	0.7%	0.0%	0.6%	0.0%	1.2%	0.0%	0.9%	0.0%
2013	1.0%	0.0%	0.8%	0.0%	1.6%	0.0%	1.2%	0.0%
2014	1.3%	5.3%	0.9%	5.3%	1.7%	8.3%	1.3%	8.3%
2015	1.0%	2.9%	0.9%	2.9%	1.3%	3.8%	1.1%	3.8%
2016	0.7%	0.0%	0.6%	0.0%	1.0%	0.0%	0.8%	0.0%
2017	0.4%	0.0%	0.3%	0.0%	0.5%	0.0%	0.3%	0.0%
2018	0.2%	0.0%	0.1%	0.0%	0.2%	0.0%	0.1%	0.0%
2019	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Notes: Data source is NMDB; GSE indicates GSE conventional loans and excludes government-insured loans for DTS purposes. The up to 100% of AMI sample indicates a subset of all-in GSE loans for borrowers with application income up to 100% of AMI.

Table A7. California: GSE and up to 100% of AMI loans: ever 90-day and 120-day delinquency rates by manufactured home status

GSE	All-In				Up to 100% AMI			
	D90		D120		D90		D120	
Origination Year	Non-MH	MH	Non-MH	MH	Non-MH	MH	Non-MH	MH
2009	1.3%	1.7%	1.2%	1.7%	2.1%	3.0%	1.8%	3.0%
2010	1.1%	5.7%	0.9%	4.3%	1.9%	7.9%	1.7%	5.3%
2011	0.8%	1.4%	0.7%	1.4%	1.3%	2.5%	1.1%	2.5%
2012	0.6%	0.0%	0.5%	0.0%	1.0%	0.0%	0.8%	0.0%
2013	0.6%	2.5%	0.5%	2.5%	1.1%	1.3%	0.9%	1.3%
2014	0.7%	1.4%	0.6%	1.4%	1.1%	0.0%	1.0%	0.0%
2015	0.4%	0.0%	0.3%	0.0%	0.7%	0.0%	0.5%	0.0%
2016	0.4%	0.9%	0.3%	0.9%	0.6%	1.7%	0.5%	1.7%
2017	0.4%	0.0%	0.3%	0.0%	0.6%	0.0%	0.5%	0.0%
2018	0.2%	0.0%	0.1%	0.0%	0.3%	0.0%	0.2%	0.0%
2019	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Notes: Data source is NMDB; GSE indicates GSE conventional loans and excludes government-insured loans for DTS purposes. The up to 100% of AMI sample indicates a subset of all-in GSE loans for borrowers with application income up to 100% of AMI.

Table A8. North Carolina: GSE and up to 100% of AMI loans: ever 90-day and 120-day delinquency rates by manufactured home status

GSE	All-In				Up to 100% AMI			
	D90		D120		D90		D120	
Origination Year	Non-MH	MH	Non-MH	MH	Non-MH	MH	Non-MH	MH
2009	1.9%	8.9%	1.7%	6.7%	2.8%	12.9%	2.6%	9.7%
2010	1.7%	5.6%	1.4%	5.6%	2.2%	3.3%	1.7%	3.3%
2011	1.6%	7.9%	1.4%	7.9%	2.4%	9.7%	2.3%	9.7%
2012	1.0%	2.4%	0.9%	2.4%	1.6%	3.6%	1.2%	3.6%
2013	1.1%	5.7%	0.9%	2.9%	2.0%	4.2%	1.7%	0.0%
2014	0.8%	5.4%	0.7%	2.7%	1.6%	7.1%	1.5%	3.6%
2015	0.6%	2.5%	0.4%	2.5%	1.1%	3.7%	0.7%	3.7%
2016	0.6%	0.0%	0.4%	0.0%	0.9%	0.0%	0.5%	0.0%
2017	0.4%	0.0%	0.2%	0.0%	0.6%	0.0%	0.3%	0.0%
2018	0.1%	0.0%	0.1%	0.0%	0.2%	0.0%	0.2%	0.0%
2019	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Notes: Data source is NMDDB; GSE indicates GSE conventional loans and excludes government-insured loans for DTS purposes. The up to 100% of AMI sample indicates a subset of all-in GSE loans for borrowers with application income up to 100% of AMI.

Table A9. Washington: GSE and up to 100% of AMI loans: ever 90-day and 120-day delinquency rates by manufactured home status

GSE	All-In				Up to 100% AMI			
	D90		D120		D90		D120	
Origination Year	Non-MH	MH	Non-MH	MH	Non-MH	MH	Non-MH	MH
2009	2.8%	1.1%	2.5%	1.1%	4.1%	1.6%	3.7%	1.6%
2010	2.5%	0.0%	2.2%	0.0%	4.1%	0.0%	3.7%	0.0%
2011	1.2%	1.5%	1.2%	1.5%	1.8%	2.3%	1.8%	2.3%
2012	1.0%	0.0%	0.9%	0.0%	1.6%	0.0%	1.3%	0.0%
2013	0.8%	0.0%	0.8%	0.0%	1.4%	0.0%	1.3%	0.0%
2014	0.6%	6.3%	0.5%	6.3%	0.9%	7.9%	0.7%	7.9%
2015	0.3%	1.1%	0.2%	1.1%	0.6%	1.8%	0.4%	1.8%
2016	0.2%	0.0%	0.2%	0.0%	0.3%	0.0%	0.3%	0.0%
2017	0.3%	0.0%	0.1%	0.0%	0.2%	0.0%	0.1%	0.0%
2018	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.1%	0.0%
2019	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Notes: Data source is NMDDB; GSE indicates GSE conventional loans and excludes government-insured loans for DTS purposes. The up to 100% of AMI sample indicates a subset of all-in GSE loans for borrowers with application income up to 100% of AMI.

Table A10. Florida: GSE and up to 100% of AMI loans: ever 90-day and 120-day delinquency rates by manufactured home status

GSE	All-In				Up to 100% AMI			
	D90		D120		D90		D120	
Origination Year	Non-MH	MH	Non-MH	MH	Non-MH	MH	Non-MH	MH
2009	3.2%	2.6%	2.8%	2.6%	5.5%	3.8%	5.0%	3.8%
2010	2.3%	5.6%	2.0%	5.6%	3.4%	5.6%	2.9%	5.6%
2011	1.8%	11.1%	1.7%	5.6%	3.1%	0.0%	2.9%	0.0%
2012	2.2%	3.4%	1.9%	3.4%	3.0%	0.0%	2.7%	0.0%
2013	1.8%	2.6%	1.5%	2.6%	2.8%	3.8%	2.2%	3.8%
2014	1.4%	0.0%	1.1%	0.0%	2.4%	0.0%	2.0%	0.0%
2015	0.7%	0.0%	0.6%	0.0%	0.9%	0.0%	0.8%	0.0%
2016	1.0%	0.0%	0.8%	0.0%	1.1%	0.0%	0.9%	0.0%
2017	0.8%	0.0%	0.6%	0.0%	0.7%	0.0%	0.5%	0.0%
2018	0.2%	0.0%	0.2%	0.0%	0.4%	0.0%	0.2%	0.0%
2019	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Notes: Data source is NMDb; GSE indicates GSE conventional loans and excludes government-insured loans for DTS purposes. The up to 100% of AMI sample indicates a subset of all-in GSE loans for borrowers with application income up to 100% of AMI.

Table A11. Texas: Government and up to 100% of AMI loans: ever 90-day and 120-day delinquency rates by manufactured home status

Government	All-In				Up to 100% AMI			
	D90		D120		D90		D120	
Origination Year	Non-MH	MH	Non-MH	MH	Non-MH	MH	Non-MH	MH
2009	14.3%	22.1%	12.2%	15.6%	16.6%	19.1%	14.1%	17.0%
2010	10.6%	10.3%	8.9%	9.3%	13.5%	9.1%	11.6%	7.6%
2011	7.8%	14.3%	6.2%	12.5%	9.9%	14.3%	7.9%	11.9%
2012	6.4%	10.0%	5.0%	8.6%	8.4%	8.7%	6.6%	6.5%
2013	6.2%	11.3%	5.0%	8.8%	7.4%	10.6%	5.8%	6.4%
2014	7.3%	7.4%	5.8%	7.4%	8.9%	11.6%	7.2%	11.6%
2015	6.0%	2.5%	4.5%	2.5%	6.6%	4.3%	4.9%	4.3%
2016	5.1%	5.1%	3.9%	2.6%	6.1%	4.3%	4.4%	4.3%
2017	3.8%	1.6%	2.6%	1.6%	4.7%	2.9%	3.1%	2.9%
2018	1.6%	3.5%	0.9%	2.3%	2.3%	3.8%	1.1%	1.9%
2019	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.1%	0.0%

Notes: Data source is NMDb; government loans include FHA, FSA/RHS insured loans and VA guaranteed loans. The up to 100% of AMI sample indicates a subset of all-in government loans for borrowers with application income up to 100% of AMI.

Table A12. California: Government and up to 100% of AMI loans: ever 90-day and 120-day delinquency rates by manufactured home status

Government	All-In				Up to 100% AMI			
	D90		D120		D90		D120	
Origination Year	Non-MH	MH	Non-MH	MH	Non-MH	MH	Non-MH	MH
2009	13.9%	17.1%	12.8%	14.4%	14.7%	13.6%	13.3%	8.5%
2010	8.5%	11.1%	7.4%	11.1%	9.7%	11.3%	8.4%	11.3%
2011	6.5%	7.5%	5.5%	6.3%	8.0%	9.4%	6.5%	7.5%
2012	3.9%	9.7%	3.0%	8.6%	5.2%	13.3%	4.0%	13.3%
2013	3.6%	3.6%	2.9%	3.6%	4.7%	3.9%	3.6%	3.9%
2014	3.7%	1.5%	2.8%	1.5%	5.2%	2.4%	3.8%	2.4%
2015	3.2%	4.5%	2.5%	4.5%	3.7%	3.8%	2.8%	3.8%
2016	3.3%	4.9%	2.6%	2.9%	4.2%	7.8%	3.2%	5.9%
2017	2.7%	4.9%	1.9%	4.9%	2.9%	7.4%	2.1%	7.4%
2018	1.6%	0.0%	1.1%	0.0%	2.0%	0.0%	1.5%	0.0%
2019	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Notes: Data source is NMDB; government loans include FHA, FSA/RHS insured loans and VA guaranteed loans. The up to 100% of AMI sample indicates a subset of all-in government loans for borrowers with application income up to 100% of AMI.

Table A13. North Carolina: Government and up to 100% of AMI loans: ever 90-day and 120-day delinquency rates by manufactured home status

Government	All-In				Up to 100% AMI			
	D90		D120		D90		D120	
Origination Year	Non-MH	MH	Non-MH	MH	Non-MH	MH	Non-MH	MH
2009	17.4%	25.4%	15.8%	23.9%	20.8%	30.1%	18.9%	28.0%
2010	13.2%	19.6%	11.3%	16.2%	17.0%	21.6%	14.7%	18.9%
2011	11.5%	20.6%	9.8%	16.1%	13.4%	25.6%	11.0%	19.7%
2012	7.5%	9.7%	6.3%	6.3%	9.8%	9.3%	8.1%	7.5%
2013	6.3%	9.2%	5.3%	5.0%	8.6%	11.1%	7.0%	6.9%
2014	6.3%	10.5%	5.4%	8.1%	7.8%	9.5%	6.8%	6.3%
2015	4.8%	8.0%	3.7%	4.5%	5.6%	6.8%	4.2%	5.4%
2016	3.9%	5.1%	3.1%	5.1%	5.0%	7.0%	4.1%	7.0%
2017	3.1%	5.5%	2.0%	3.3%	4.4%	8.2%	2.7%	4.9%
2018	1.5%	0.0%	1.2%	0.0%	1.9%	0.0%	1.6%	0.0%
2019	0.2%	0.0%	0.2%	0.0%	0.3%	0.0%	0.3%	0.0%

Notes: Data source is NMDB; government loans include FHA, FSA/RHS insured loans and VA guaranteed loans. The up to 100% of AMI sample indicates a subset of all-in government loans for borrowers with application income up to 100% of AMI.

Table A14. Washington: Government and up to 100% of AMI loans: ever 90-day and 120-day delinquency rates by manufactured home status

Government	All-In				Up to 100% AMI			
	D90		D120		D90		D120	
Origination Year	Non-MH	MH	Non-MH	MH	Non-MH	MH	Non-MH	MH
2009	19.1%	19.0%	18.3%	17.6%	21.4%	21.1%	20.8%	19.5%
2010	11.8%	13.3%	10.6%	12.7%	13.3%	14.1%	12.2%	13.1%
2011	7.8%	13.2%	6.9%	13.2%	8.3%	15.8%	7.3%	15.8%
2012	5.6%	3.3%	4.8%	2.0%	6.5%	2.1%	5.7%	1.0%
2013	5.2%	7.5%	4.3%	6.1%	6.1%	11.3%	5.2%	9.3%
2014	3.8%	5.4%	3.7%	3.3%	4.7%	3.2%	4.5%	1.6%
2015	3.1%	3.4%	2.5%	3.4%	4.0%	4.2%	3.2%	4.2%
2016	2.3%	3.3%	1.8%	3.3%	2.8%	4.1%	2.2%	4.1%
2017	2.1%	1.9%	1.8%	0.9%	2.7%	1.2%	2.2%	1.2%
2018	0.9%	0.0%	0.7%	0.0%	1.2%	0.0%	1.0%	0.0%
2019	0.0%	3.4%	0.0%	0.0%	0.0%	6.3%	0.0%	0.0%

Notes: Data source is NMDb; government loans include FHA, FSA/RHS insured loans and VA guaranteed loans. The up to 100% of AMI sample indicates a subset of all-in government loans for borrowers with application income up to 100% of AMI.

Table A15. Florida: Government and up to 100% of AMI loans: ever 90-day and 120-day delinquency rates by manufactured home status

Government	All-In				Up to 100% AMI			
	D90		D120		D90		D120	
Origination Year	Non-MH	MH	Non-MH	MH	Non-MH	MH	Non-MH	MH
2009	21.1%	27.1%	19.6%	24.8%	24.7%	26.4%	22.9%	24.1%
2010	13.2%	16.9%	11.8%	16.9%	15.4%	13.5%	13.7%	13.5%
2011	9.2%	5.5%	7.9%	3.6%	10.4%	7.3%	8.7%	4.9%
2012	6.1%	14.3%	5.1%	14.3%	7.9%	12.1%	6.5%	12.1%
2013	5.6%	11.6%	4.8%	11.6%	7.0%	12.8%	6.0%	12.8%
2014	6.3%	9.4%	5.2%	9.4%	7.7%	11.8%	6.4%	11.8%
2015	5.2%	6.3%	4.3%	6.3%	6.1%	8.3%	4.9%	8.3%
2016	4.6%	6.2%	3.8%	5.2%	5.5%	8.9%	4.6%	8.9%
2017	4.1%	3.1%	2.9%	2.1%	4.6%	3.6%	3.4%	1.8%
2018	1.7%	3.8%	1.2%	3.8%	1.8%	3.9%	1.4%	3.9%
2019	0.2%	0.0%	0.1%	0.0%	0.2%	0.0%	0.2%	0.0%

Notes: Data source is NMDb; government loans include FHA, FSA/RHS insured loans and VA guaranteed loans. The up to 100% of AMI sample indicates a subset of all-in government loans for borrowers with application income up to 100% of AMI.

Table A16. Texas: Other conventional and up to 100% of AMI loans: ever 90-day and 120-day delinquency rates by manufactured home status

Other Conventional	All-In				Up to 100% AMI			
	D90		D120		D90		D120	
	Non-MH	MH	Non-MH	MH	Non-MH	MH	Non-MH	MH
2009	5.6%	13.0%	4.6%	9.1%	6.6%	13.9%	5.4%	8.3%
2010	4.3%	10.1%	3.6%	9.1%	5.9%	12.5%	4.9%	10.9%
2011	4.5%	11.5%	3.5%	10.4%	7.0%	15.7%	6.1%	15.7%
2012	3.7%	10.4%	3.1%	9.0%	7.0%	16.2%	5.8%	16.2%
2013	3.1%	6.1%	2.6%	4.1%	5.5%	6.7%	4.7%	6.7%
2014	2.0%	12.0%	1.4%	9.6%	3.7%	15.1%	2.8%	13.2%
2015	1.3%	3.5%	1.0%	1.8%	1.5%	7.1%	1.0%	3.6%
2016	0.8%	2.0%	0.3%	0.0%	1.1%	3.6%	0.5%	0.0%
2017	0.7%	1.5%	0.6%	0.0%	0.8%	2.6%	0.7%	0.0%
2018	0.4%	0.0%	0.3%	0.0%	0.8%	0.0%	0.5%	0.0%
2019	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Notes: Data source is NMDB; other conventional loans include the remaining conventional loans after excluding GSE conventional loans. The up to 100% of AMI sample indicates a subset of all-in other conventional loans for borrowers with application income up to 100% of AMI.

Table A17. California: Other conventional and up to 100% of AMI loans: ever 90-day and 120-day delinquency rates by manufactured home status

Other Conventional	All-In				Up to 100% AMI			
	D90		D120		D90		D120	
	Non-MH	MH	Non-MH	MH	Non-MH	MH	Non-MH	MH
2009	3.7%	3.6%	3.1%	3.6%	3.4%	5.6%	2.4%	5.6%
2010	2.4%	0.0%	1.9%	0.0%	2.6%	0.0%	2.3%	0.0%
2011	1.5%	3.8%	1.3%	3.8%	2.3%	5.3%	1.7%	5.3%
2012	0.6%	0.0%	0.5%	0.0%	1.1%	0.0%	0.9%	0.0%
2013	0.6%	0.0%	0.5%	0.0%	0.9%	0.0%	0.8%	0.0%
2014	0.6%	0.0%	0.4%	0.0%	1.3%	0.0%	1.1%	0.0%
2015	0.4%	0.0%	0.3%	0.0%	0.6%	0.0%	0.4%	0.0%
2016	0.3%	2.2%	0.2%	2.2%	0.8%	4.3%	0.6%	4.3%
2017	0.3%	0.0%	0.2%	0.0%	0.8%	0.0%	0.7%	0.0%
2018	0.2%	3.1%	0.1%	0.0%	0.3%	2.6%	0.3%	0.0%
2019	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%

Notes: Data source is NMDB; other conventional loans include the remaining conventional loans after excluding GSE conventional loans. The up to 100% of AMI sample indicates a subset of all-in other conventional loans for borrowers with application income up to 100% of AMI.

Table A18. North Carolina: Other conventional and up to 100% of AMI loans: ever 90-day and 120-day delinquency rates by manufactured home status

Other Conventional	All-In				Up to 100% AMI			
	D90		D120		D90		D120	
	Non-MH	MH	Non-MH	MH	Non-MH	MH	Non-MH	MH
2009	10.0%	20.9%	8.8%	19.4%	13.4%	17.4%	11.4%	17.4%
2010	4.3%	4.6%	4.0%	4.6%	6.2%	4.7%	5.7%	4.7%
2011	3.6%	9.5%	3.1%	9.5%	5.8%	12.0%	5.3%	12.0%
2012	2.1%	4.5%	1.8%	1.5%	2.9%	5.4%	2.9%	0.0%
2013	2.3%	8.1%	1.7%	8.1%	4.0%	8.3%	3.0%	8.3%
2014	4.0%	3.0%	3.2%	3.0%	7.1%	0.0%	5.5%	0.0%
2015	2.7%	0.0%	1.8%	0.0%	3.5%	0.0%	2.2%	0.0%
2016	1.3%	2.2%	1.3%	2.2%	2.4%	3.6%	2.4%	3.6%
2017	1.7%	0.0%	1.1%	0.0%	2.4%	0.0%	1.2%	0.0%
2018	0.5%	2.2%	0.3%	0.0%	0.8%	3.6%	0.5%	0.0%
2019	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Notes: Data source is NMDB; other conventional loans include the remaining conventional loans after excluding GSE conventional loans. The up to 100% of AMI sample indicates a subset of all-in other conventional loans for borrowers with application income up to 100% of AMI.

Table A19. Washington: Other conventional and up to 100% of AMI loans: ever 90-day and 120-day delinquency rates by manufactured home status

Other Conventional	All-In				Up to 100% AMI			
	D90		D120		D90		D120	
	Non-MH	MH	Non-MH	MH	Non-MH	MH	Non-MH	MH
2009	4.9%	4.3%	4.2%	4.3%	7.2%	7.7%	6.2%	7.7%
2010	1.3%	3.6%	1.3%	3.6%	2.0%	5.3%	2.0%	5.3%
2011	1.2%	0.0%	1.0%	0.0%	1.4%	0.0%	1.1%	0.0%
2012	0.6%	8.1%	0.4%	8.1%	0.8%	3.6%	0.8%	3.6%
2013	0.6%	0.0%	0.5%	0.0%	0.8%	0.0%	0.4%	0.0%
2014	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2015	0.6%	0.0%	0.5%	0.0%	0.9%	0.0%	0.9%	0.0%
2016	0.5%	0.0%	0.5%	0.0%	0.6%	0.0%	0.6%	0.0%
2017	0.1%	2.2%	0.1%	2.2%	0.2%	3.4%	0.2%	3.4%
2018	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2019	0.1%	0.0%	0.1%	0.0%	0.2%	0.0%	0.2%	0.0%

Notes: Data source is NMDB; other conventional loans include the remaining conventional loans after excluding GSE conventional loans. The up to 100% of AMI sample indicates a subset of all-in other conventional loans for borrowers with application income up to 100% of AMI.

Table A20. Florida: Other conventional and up to 100% of AMI loans: ever 90-day and 120-day delinquency rates by manufactured home status

Other Conventional	All-In				Up to 100% AMI			
	D90		D120		D90		D120	
	Non-MH	MH	Non-MH	MH	Non-MH	MH	Non-MH	MH
2009	7.9%	7.5%	7.3%	7.5%	9.8%	4.3%	9.3%	4.3%
2010	5.2%	11.8%	4.1%	8.8%	7.3%	5.3%	6.0%	5.3%
2011	3.4%	14.3%	3.1%	14.3%	6.1%	14.3%	5.6%	14.3%
2012	1.7%	2.6%	1.5%	2.6%	2.9%	0.0%	2.6%	0.0%
2013	1.3%	2.6%	1.1%	2.6%	2.7%	4.2%	2.7%	4.2%
2014	1.1%	3.0%	0.9%	0.0%	1.0%	0.0%	0.5%	0.0%
2015	0.8%	0.0%	0.6%	0.0%	1.9%	0.0%	1.3%	0.0%
2016	0.8%	2.1%	0.7%	0.0%	1.6%	0.0%	1.2%	0.0%
2017	0.5%	0.0%	0.4%	0.0%	0.8%	0.0%	0.5%	0.0%
2018	0.2%	1.9%	0.2%	1.9%	0.2%	3.3%	0.2%	3.3%
2019	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Notes: Data source is NMDB; other conventional loans include the remaining conventional loans after excluding GSE conventional loans. The up to 100% of AMI sample indicates a subset of all-in other conventional loans for borrowers with application income up to 100% of AMI.

Reference
[Urban Institute, 2018](#)