National Mortgage Database (NMDB®) Aggregate Mortgage Statistics

Data Dictionary and Technical Notes

April 26, 2024

Contents

NMDB® Aggregate Statistics Data Dictionary

Field Position	Field Name	Field Description	Max. Length	Field Type	Field Values or Examples
1	SOURCE	Data Source	4	String	NMDB
2	FREQUENCY	Frequency of the Series	7	String	Annual Quarterly Monthly
3	SERIESID	Statistic Field Identifier	19	String	New Residential Mortgages, see Appendix B Outstanding Mortgages, see Appendix C Performance Statistics, see Appendix D
4	GEOLEVEL	Level of Geography	15	String	National Census Region Census Division State Metro Area
5	GEOID	Geography Identifier	5	String	See Appendix E e.g., USA RW DNE FL 23420
6	GEONAME	Name of Geography	25	String	See Appendix E e.g., United States West New England Florida Fresno, CA
7	MARKET	Mortgage Market, Submarket	50	String	See Appendix A e.g., All Mortgages Enterprise Acquisitions (home Purchase Government (Refinance) Other Conventional

Aggregate Statistics Data Dictionary (Cont.)

Field Position	Field Name	Field Description	Max Length	Field Type	Field Values or Examples
8	PERIOD	Time Period: Year Quarter or Month	6	String	e.g., 2009 2009Q2 200906
9	YEAR	Year	4	Numeric	e.g., 2009
10	QUARTER	Quarter	1	Numeric	e.g., 2
11	MONTH	Month	2	String / Numeric	e.g., 06 (includes leading zeros)
12	SUPPRESSED	Indicator for Value Suppression	1	Numeric	1 = Suppressed 0 = Not Suppressed
13	VALUE1	Values Weighted by Number of Loans	10	Numeric	All Statistics/Aggregates are weighted by the number of mortgages at the end of the quarter
14	VALUE2	Values Weighted by Dollar Loan Volume (New Residential Mortgage Originations and Outstanding Mortgages Data Only)	10	Numeric	Origination Statistics/Aggregates are weighted by the value of the origination loan amount Outstanding Mortgage Statistics/Aggregates are weighted by the value of the unpaid principal balance (UPB) of the mortgage as of the end of the quarter

NMDB® Mortgage Statistics Technical Notes

The NMDB® is a de-identified loan-level database of closed-end first-lien residential mortgages. It is representative of the residential mortgage market as a whole; contains detailed, loan-level information on the terms and performance of residential mortgages, as well as characteristics of the associated borrowers and properties; and is continually updated. The core data in NMDB represent a statistically valid 1-in-20 random sample of all closed-end, first-lien mortgages active since January 1998 and reported to one of the three national credit bureaus.[1] A complete description of the NMDB is available in the NMDB Technical Documentation at www.fhfa.gov/nmdbdata.

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[1] While the NMDB provides an excellent and comprehensive representation of mortgages for owner-occupied and site-built homes, investor mortgages and mortgages for manufactured homes are not as well represented. This is because mortgages taken out by non-persons are not reported to the credit bureaus by servicers and loans for manufactured homes are not well-defined in the credit bureau reporting standards.

When the NMDB program began, an initial sample was drawn from all mortgage files outstanding at any point from January 1998 through June 2012. Since then, the sample has been updated on a quarterly basis with mortgages newly reported to Experian. Mortgages (and their borrowers) are tracked in NMDB from at least one year prior to origination to one year after termination of the mortgage, whether that termination is through prepayment, adverse termination, or maturity.

The sample used is large enough to support almost all types of statistically valid analyses but small enough to manage logistically, thus dramatically reducing both contract and personnel costs. The restriction of the NMDB frame to closed-end loans was made for two reasons. First, it mimics the reporting requirements of the Home Mortgage Disclosure Act (HMDA) and second, it reflects the practical fact that administrative data, which is a critical input for the NMDB data, is available for very few open-ended loans.

To make core statistics available to the general public, FHFA is producing a series of aggregated data files. These files contain statistics aggregated by year, quarter, and month. State level data are available in the annual data files. Nationwide, Census Region and Census Division aggregates are available in all three time dimension aggregations. The aggregated statistics are also provided for various submarkets in addition to the single-family mortgage market as a whole. The defined submarkets are shown in Figure 1 and described in Appendix A. Information on the geographic areas included in the datasets is provided in Appendix E.

Figure 1.

Mortgage Market[*]			
All Mortgages			
Conforming Market			Jumbo Market
Government[**] / Non-Conventional	Conventional Conforming Market		
	Enterprise Acquired[***]	Other Conforming Market	
		Other Conventional Market	
	Conventional Market		

*The NMDB includes mortgage originations from all 50 states and the District of Columbia. The NMDB is based on the first-lien, closed-end mortgages reported to one of three major credit bureaus. The NMDB is a 5% sample and not a census of the mortgage universe.
**Government loans includes loans issued by the Federal Housing Administration (FHA), U.S. Department of Veterans Affairs (VA), and the Rural Housing Rural Housing Service (RHS) of the U.S. Department of Agriculture (USDA).
***Enterprise acquired loans include loans acquired by either Fannie Mae or Freddie Mac.

Since the NMDB is based on a 5 percent sample, aggregated data in small cells are not statistically reliable. Also, there may be privacy concerns when statistics are based on few observations. Therefore, aggregated statistics are suppressed when they are based on fewer than 3 loans. Suppressed data are indicated by the SUPPRESSED field.

New Residential Mortgage Statistics

New originations are mortgage loans that are initially funded, as determined by the account opening date. They are categorized as home purchase (purchase money) mortgages or refinance mortgages. These datasets include two analysis variables, VALUE1 and VALUE2. VALUE1 statistics are weighted based on mortgage counts, where each sample mortgage represents 20 actual mortgages. VALUE2 statistics are weighted by the origination loan amount of the mortgage.

Appendix B describes the set of aggregate statistics produced for new originations.

The following data sets providing aggregate statistics on new originations are available on the FHFA website: https://www.fhfa.gov/DataTools/Downloads/Pages/National-Mortgage-Database-Aggregate-Data.aspx.

Nationwide and Census Areas:
       nmdb-new-mortgage-statistics-national-census-areas-annual.csv
       nmdb-new-mortgage-statistics-national-census-areas-quarterly.csv
       nmdb-new-mortgage-statistics-national-census-areas-monthly.csv

State Level data:
       nmdb-new-mortgage-statistics-states-annual.csv

All Geographic Delineations (large file):
       nmdb-new-mortgage-statistics-all-annual.csv

Outstanding Residential Mortgage Statistics

Outstanding mortgage statistics are a stock measure of active mortgages taken at the end of each calendar quarter when the NMDB is updated. Current active mortgages are equal to previous active mortgages plus new originations less mortgages that are paid off or otherwise terminated. These datasets include two analysis variables, VALUE1 and VALUE2. VALUE1 statistics are weighted based on mortgage counts, where each sample mortgage represents 20 actual mortgages. VALUE2 statistics are weighted by the amount of each mortgage's unpaid principal balance (UPB) at the end of the indicated quarter.

Appendix C describes the set of aggregate statistics produced for outstanding mortgages.

The following data sets providing aggregate statistics on active mortgages are available on the FHFA website: https://www.fhfa.gov/DataTools/Downloads/Pages/National-Mortgage-Database-Aggregate-Data.aspx.

Nationwide and Census Areas:
       nmdb-outstanding-mortgage-statistics-national-census-areas-quarterly.csv

State Level data:
       nmdb-outstanding-mortgage-statistics-state-quarterly.csv

All Geographic Delineations (large file):
       nmdb-outstanding-mortgage-statistics-all-quarterly.csv

Residential Mortgage Performance Statistics

The NMDB data show three mutually exclusive performance categories: a) 30 or 60 days past due date, b) 90 to 180 days past due date, and c) in the process of foreclosure, bankruptcy, or deed-in-lieu. The data reflect performance in the last month of each quarter. In addition, a new series has been added to provide

the forbearance rate beginning with the fourth quarter of 2019. Performance and forbearance rates are calculated on only active loans starting the quarter after origination to the quarter before termination.[2]

The NMDB Mortgage Performance Statistics show the payment past due status of a representative sample of first lien closed-end mortgages as reported in consumers' credit reports. Servicers and lenders generally report loan payment status only once a month. However, past due status as legally reported to the credit bureau is determined strictly by the number of calendar days that a payment is past due, e.g., 30, 60, 90, etc. For example, in a credit report, a missed April (first of the month) payment after a prompt March payment does not appear as 30 days past due until May 2nd and thus will not be reflected in servicer reports before that date. The CARES Act, passed March 28, 2020, presents another reporting issue. Under the CARES Act, when forbearance is granted to current loans, they must be subsequently reported as current regardless of whether or not payments are made. Finally, although most servicers report loan performance monthly (about 97 percent) a small number do not. This can happen because loans are in dispute, the servicer only reports on a quarterly basis, or for some seriously past due loans there is no change in status. The NMDB statistics accommodate this issue with a "stale account rule" similar to those embedded in credit scores. Monthly statistics reflect the most recent report status for a loan within three months even when it is not reported in the current month. The most recent report within 24 months is used for mortgages 180 days or more past due and mortgages in the process of foreclosure, bankruptcy, or deed-in-lieu.

These factors mean that the monthly NMDB statistics may not strictly align with other performance metrics which determine past due status on a monthly basis, treat non-payments for loans under forbearance differently or use different stale account rules. Historically, lenders have granted forbearance to loans in areas hit by natural disasters. In the aftermath of Hurricane Katrina, for example, loans in Louisiana showed no increase in delinquency despite the fact that many borrowers were not making payments. Also, in rare cases, the foreclosure process can be drawn out longer than two years in states with judicial foreclosure rules like New Jersey, Connecticut and Florida, and particularly during the mortgage crisis. In these cases, the two-year stale account rule could actually reduce delinquency measures.

Due to the time lag in the reporting of new mortgages to the credit bureaus (up to 6 months), performance statistics reported in the latest two quarters should be treated as preliminary estimates that may be revised in the future as the reporting gap closes. Generally, initial estimates of delinquency and forbearance are higher than the revised numbers. During periods of higher-than-normal origination activity in the mortgage market, the effect of the reporting lag could be more acute.

The following data sets providing aggregate statistics on mortgage performance are available on the FHFA website: https://www.fhfa.gov/DataTools/Downloads/Pages/National-Mortgage-Database-Aggregate-Data.aspx (See Appendix B for descriptions of series elements and other definitions and notes.)

Nationwide and Census Areas:
      nmdb-performance-statistics-national-census-areas-quarterly.csv

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[2] Active loans are loans that are not closed or terminated for which there exists performance data. Termination means the trade line is closed, whether through a mortgage refinance or the balance was otherwise paid off or settled. The NMDB is based on a 5 percent nationally representative sample of first-lien, closed-end mortgages reported to one of the three major credit bureaus. While the NMDB provides an excellent and comprehensive representation of mortgages for owner-occupied and site-built homes, investor mortgages and mortgages for manufactured homes are not as well represented because mortgages taken out by non-persons are not reported to the credit bureaus and loans for manufactured homes are not well-defined in reporting to the credit bureaus.

State Level data:

        nmdb-performance-statistics-state-quarterly.csv

Metro Area Level data:

        nmdb-performance-statistics-metro-quarterly.csv

All Geographic Delineations (large file):

        nmdb-performance-statistics-all-quarterly.csv

Appendix A

MARKET DEFINITIONS

CATEGORY	Market Definition
All Mortgages	All single-family mortgage originations from NMDB. Coverage includes all 50 States and the District of Columbia (5% sample of credit reports)
All Mortgages (Home Purchase)	Subset of All Mortgages, includes only home purchase (purchase money) loan originations
All Mortgages (Refinance)	Subset of All Mortgages, includes only refinance loan originations
Conventional Market	Subset of All Mortgages, includes all non-government insured/guaranteed/direct loans
Conventional Market (Home Purchase)	Subset of Conventional Market, includes only home purchase (purchase money) loan originations
Conventional Market (Refinance)	Subset of Conventional Market, includes only refinance loan originations
Conforming Market	Subset of All Mortgages, includes all loans at or below the applicable FHFA conforming loan limit (adjusted for number of units)**
Conforming Market (Home Purchase)	Subset of Conforming Market, includes only home purchase (purchase money) loan originations
Conforming Market (Refinance)	Subset of Conforming Market, includes only refinance loan originations
Conventional Conforming Market	Subset of All Mortgages, includes all non-government insured/guaranteed/ direct loans at or below the applicable conforming loan limit (adjusted for number of units)
Conventional Conforming Market (Home Purchase)	Subset of Conventional Conforming Market, includes only home purchase (purchase money) loan originations
Conventional Conforming Market (Refinance)	Subset of Conventional Conforming Market, includes only refinance loan originations

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MARKET DEFINITIONS (Continued)

CATEGORY	Market Definition
Enterprise Acquisitions	Subset of All Mortgages, includes all Enterprise (i.e., Fannie Mae and Freddie Mac) acquired loans (that are not guaranteed by a government agency)
Enterprise Acquisitions (Home Purchase)	Subset of Enterprise Acquisitions, includes only home purchase (purchase money) loan originations
Enterprise Acquisitions (Refinance)	Subset of Enterprise Acquisitions, includes only refinance loan originations
Government / Non-Conventional	Subset of All Mortgages, includes all government insured/guaranteed/direct loans
Government (Home Purchase)	Subset of Government / Non-Conventional, includes only home purchase (purchase money) loan originations
Government (Refinance)	Subset of Government / Non-Conventional, includes only refinance loan originations
Other Conventional Market	Subset of All Mortgages, includes other conventional loans after government insured/guaranteed/direct loans and Enterprise acquired loans are removed. Includes loans in the Federal Home Loan Bank Acquired Member Assets program, Credit Union, loans in private label mortgage pools and other portfolio held loans. (Includes the jumbo mortgage market)
Other Conventional Market (Home Purchase)	Subset of Other Conventional Market, includes only home purchase (purchase money) loan originations
Other Conventional Market (Refinance)	Subset of Other Conventional Market, includes only refinance loan originations

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MARKET DEFINITIONS (Continued)

CATEGORY	Market Definition
Other Conforming Market	Subset of All Mortgages, other conventional conforming loans after government insured/guaranteed/direct loans, Enterprise acquired loans and jumbo loans are removed. Includes loans in the Federal Home Loan Bank Acquired Member Assets program, Credit Union and other portfolio held loans
Other Conforming Market (Home Purchase)	Subset of Other Conforming Market, includes only home purchase (purchase money) loan originations
Other Conforming Market (Refinance)	Subset of Other Conforming Market, includes only refinance loan originations
Jumbo Market	Subset of All Mortgages, includes all loans above the applicable FHFA conforming loan limit (adjusted for number of units)
Jumbo Market (Home Purchase)	Subset of Jumbo Market, includes only home purchase (purchase money) loan originations
Jumbo Market (Refinance)	Subset of Jumbo Market, includes only refinance loan originations
*The NMDB is based on the first-lien, closed-end mortgages reported to one of three major credit bureaus. The NMDB is a 5% sample and not a census of the mortgage universe. ** The conforming loan limit is the location determined maximum loan amount that can be acquired by Fannie Mae or Freddie Mac.	

Appendix B

STATISTICS FOR NEW RESIDENTIAL MORTGAGES

Series Descriptions			SERIESID	Notes
Number of Originations (1,000s)			TOT_ORIG	VALUE1: 1,000s of originations VALUE2: Millions of dollars ($)
Average Loan Amount (1,000 $)			AVE_LOANAMT	Rounded to nearest $1,000
Average Initial Required Loan Payment after Origination			AVE_PAYMENT	Rounded to nearest dollar ($)
Average Purchase Price or Appraised Value (1,000 $)			AVE_PROPVAL	Rounded to nearest $1,000
Average Contract Rate			AVE_INTRATE	Interest rate at time of origination
Percent Share Owner-Occupied Property			PCT_OWNOCC	Share of originations where the property is owner-occupied
Home Purchase Originations	Percent Share	First-Time Homebuyer Loans*	PCT_FTHB	Any of the borrowers is a first-time home purchase
		Repeat Homebuyer Loans	PCT_REPEATHB	None of the borrowers is a first-time homebuyer
		All Home Purchase Loans	PCT_HP	Purpose of the loan is to purchase a home
Refinance Originations	Percent Share	Cashout Refinance Loans**	PCT_CASHOUT	Purpose of the loan is to access equity through a refinance
		Rate and Term Refinance Loans	PCT_OTH_REFI	None of the loans are cashout refinances (purpose of the loan is to take advantage of favorable rates and/or term through a refinance)
		All Refinance Loans	PCT_REFI	Purpose of the loan is to refinance an existing mortgage
Mortgage Terms	Average Term to Maturity (Yrs.)		AVE_TERM	Term to maturity at time of origination
	Percent Share by Term	Adjustable-Rate Mortgages	PCT_ARM	Adjustable-rate mortgage
		15-Year Fixed Rate Mortgages	PCT_TERM_FRM_15	Fixed rate mortgage where term to maturity is less than or equal to 15 years
		20- and 30-Year Fixed Rate Mortgages	PCT_TERM_FRM_30	Fixed rate mortgage where term to maturity is greater than 15 years
Back-End Debt-to-Income Ratio	Average DTI		AVE_DTI	Average back-end debt-to-income ratio
	Percent Share by DTI	Less Than or Equal To 36	PCT_DTI_LE36	Debt-to-income ratio at or below 36%
		More than 36 To 43	PCT_DTI_3743	Debt-to-income ratio between 36.1 and 43%
		Greater Than 43	PCT_DTI_GE44	Debt-to-income ratio above 43%
All Borrowers' Credit Score	Average Loan Credit Score		AVE_VANTAGESCR	Average VantageScore® Version 3.0 of all borrowers
	Percent Share of Loans by Borrowers' Credit Score***	Very Poor Credit	PCT_VS_VERYPOOR	Average borrower VantageScore is 300-499
		Poor Credit	PCT_VS_POOR	Average borrower VantageScore is 500-600
		Fair Credit	PCT_VS_FAIR	Average borrower VantageScore is 601-660
		Good Credit	PCT_VS_GOOD	Average borrower VantageScore is 661-780
		Excellent Credit	PCT_VS_EXCELLENT	Average borrower VantageScore is 781-850
Loan-to-Value	Average	Loan-to-Value	AVE_LTV	Loan-to-value based on first lien mortgage
		Combined Loan-to-Value	AVE_CLTV	Loan-to-value based on first and contemporaneous subordinate liens mortgage
	Percent Share by CLTV	70.0% or Less	PCT_CLTV_LE70	Combined Loan-to-value (CLTV) at or below 70%
		70.1 - 80.0%	PCT_CLTV_7080	Combined Loan-to-value between 70 and 80%
		80.1 - 90.0%	PCT_CLTV_8090	Combined Loan-to-value between 80 and 90%
		90.1 - 95.0%	PCT_LTV_9095	Combined Loan-to-value between 90 and 95%
		95.1 - 97.0%	PCT_LTV_9597	Combined Loan-to-value between 95 and 97%
		Greater Than 97.0%	PCT_LTV_GT97	Combined Loan-to-value greater than 97%

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STATISTICS FOR NEW RESIDENTIAL MORTGAGES (Continued)

Series Descriptions			SERIES	Notes
Percent Market Share		Government	PCT_GOVERNMENT	Government insured/guaranteed/direct loans
		Enterprise	PCT_ENTERPRISE	Non-government loans acquired by an enterprise
		Other Conforming (Portfolio)	PCT_OTHERCONFORMING	Non-government, non-enterprise conforming loans
		Jumbo Market	PCT_NONCONFORMING	Loans above the conforming loan limit
Percent Share of Loans by All Borrowers' Race		All White alone	PCT_WHT	All borrowers are White
		All Black or African American alone	PCT_BLK	All borrowers are Black or African American
		All Asian alone	PCT_ASN	All borrowers are only Asian
		All Native Hawaiian and Other Pacific Islander alone	PCT_HPI	All borrowers are Hawaiian or Pacific Islander
		All American Indian and Alaska Native alone	PCT_AMI	All borrowers are American Indian or Alaska Native
		Multiple races	PCT_MIX	(a) One or more borrowers reported more than once race, or (b) where each borrower reported one race, but the borrowers were from different races
Percent Share of Loans by All Borrowers' Ethnicity		All Hispanic or Latino	PCT_HIS	All borrowers are Hispanic or Latino (including single borrower) who may be or any race
		At least one Hispanic or Latino	PCT_HSP	One borrower is Hispanic or Latino (among two or more borrowers) who may be of any race
		All White alone, not Hispanic or Latino	PCT_WNH	All borrowers are White and not Hispanic or Latino
		Multiple races or race other than White, not Hispanic or Latino	PCT_MNH	All borrowers are not Hispanic or Latino and (a) one or more borrowers reported more than once race, or (b) where each borrower reported one race, but all the borrowers were of race other than White
All Borrowers' Ages		Average Age	AVE_AGE_BORROWER	Average age of all borrowers
	Percent Share of Loans by Age	Less Than 25	PCT_AGE_LT25	Average borrower age is less than 25
		25 to 34	PCT_AGE_2534	Average borrower age is 25 to 34
		35 to 44	PCT_AGE_3544	Average borrower age is 35 to 44
		45 to 54	PCT_AGE_4554	Average borrower age is 45 to 54
		55 to 64	PCT_AGE_5564	Average borrower age is 55 to 64
		At Least 65	PCT_AGE_GE65	Average borrower age is at least 65
Percent Share by Number of Borrowers and Gender		Single Borrower - Male	PCT_MALEBOR	One borrower and that borrower is male
		Single Borrower - Female	PCT_FEMALEBOR	One borrower and that borrower is female
		Two Borrowers	PCT_TWOBOR	Two borrowers
		More Than Two Borrowers	PCT_MULTIBOR	More than two borrowers

*First-time homebuyer is determined by reviewing the credit data of every borrower for prior mortgages. When no prior mortgage is found for the borrower, that borrower is defined as a first-time homebuyer. If any borrower associated with a loan is a first-time homebuyer, that loan is defined as a first-time homebuyer loan.

**Cashout refinance is defined as when the new first lien amount plus any second lien amounts is more than five percent above the previous first and second liens' Unpaid Principal Balance (UPB), at the time of the refinance, added together.

***https://www.experian.com/blogs/ask-experian/credit-education/score-basics/what-is-a-good-credit-score

Appendix C

STATISTICS FOR RESIDENTIAL MORTGAGES ACTIVE AS OF THE END OF THE QUARTER

Series Descriptions			SERIESID	Notes
Outstanding (Active) Loans			TOT_LOANS	VALUE1: 1,000s of mortgages VALUE2: Billions of dollars ($)
Percent Share of Loans by Geography			PCT_LOANS	Number of outstanding loans in the State divided by total Nationwide outstanding loans
Origination Loan Volume ($ Bil.)			TOT_LOANAMT	Total Loan Volume at Origination (billions of dollars ($), VALUE1 only)
Median Monthly Payment			MED_PAYMENT	Median principal, interest and escrow (where applicable) payment for the month ending the quarter (VALUE1 only)
Average Monthly Payment			AVE_PAYMENT	Average principal, interest and escrow (where applicable) payment for the month ending the quarter (VALUE1 only)
Mark-to-Market Loan-to-Value*	Average		AVE_MTMLTV	Average mark-to-market loan-to-value*
	Percent Share by LTV	Less Than or Equal to 60%	PCT_MTMLTV_LE60	Mark-to-market loan-to-value (LTV) at or below 60%
		60.1 - 70.0%	PCT_MTMLTV_61_70	Mark-to-market loan-to-value between 60 and 70%
		70.1 - 80.0%	PCT_MTMLTV_71_80	Mark-to-market loan-to-value between 70 and 80%
		80.1 - 90.0%	PCT_MTMLTV_81_90	Mark-to-market loan-to-value between 80 and 90%
		90.1 - 100%	PCT_MTMLTV_91_100	Mark-to-market loan-to-value between 90 and 100%
		Greater Than 100%	PCT_MTMLTV_GT100	Mark-to-market loan-to-value greater than 100%
Contract Interest Rate at Origination	Average		AVE_INTRATE	Average interest rate at time of origination
	Percent Share by Interest Rate	Less Than 3%	PCT_INTRATE_LT_3	Contract interest rate below 3 percent
		3.00 – 3.99%	PCT_INTRATE_3_4	Contract interest rate between 3 and 4 percent
		4.00 – 4.99%	PCT_INTRATE_4_5	Contract interest rate between 4 and 5 percent
		5.00 – 5.99%	PCT_INTRATE_5_6	Contract interest rate between 5 and 6 percent
		Greater Than or Equal to 6%	PCT_INTRATE_GE_6	Contract interest rate at or greater than 6 percent
Mortgage Term	Adjustable Rate Mortgages	Originated Less Than or Equal to 4 Years Ago	PCT_TERM_ARM_1_4	Adjustable Rate Mortgages (ARMs) that were originated within the prior 4 years
		Originated More than 4 Years Ago	PCT_TERM_ARM_5PL	Adjustable Rate Mortgages (ARMs) that were originated more than 4 years ago
	Fixed Rate Mortgages	Term of 15 Year or Less	PCT_TERM_FRM_15	Fixed Rate Mortgages (FRMs) with a term less than or equal to 15 years (primarily 15 year mortgages)
		Term of More than 15 Years	PCT_TERM_FRM_30	Fixed Rate Mortgages (FRMs) with a term of more than 15 years (primarily 20 and 30 year mortgages)

(Continued)

STATISTICS FOR RESIDENTIAL MORTGAGES ACTIVE AS OF THE END OF THE QUARTER
   (Continued)

Series Descriptions			SERIESID	Notes
Credit Score at Current Quarter**	Average		AVE_VANTAGESCR	Average VantageScore® Version 3.0 of all borrowers
	Percent Share of Loans by Borrowers' Credit Score	Very Poor Credit	PCT_VS_VERYPOOR	Average borrower VantageScore is 300-499
		Poor Credit	PCT_VS_POOR	Average borrower VantageScore is 500-600
		Fair Credit	PCT_VS_FAIR	Average borrower VantageScore is 601-660
		Good Credit	PCT_VS_GOOD	Average borrower VantageScore is 661-780
		Excellent Credit	PCT_VS_EXCELLENT	Average borrower VantageScore is 781-850
Age of Mortgage Loan	Average (Months)		AVE_AGE_LOAN	Average number of months since loan was originated
	Percent Share by Age	Less Than or Equal to 4 Years	PCT_TENURE_1_4	Share of outstanding loans that were originated within 4 years
		4.01 – 7.00 Years	PCT_TENURE_5_7	Share of outstanding loans that were originated 4.01 – 7.00 years ago
		7.01 – 10.00 Years	PCT_TENURE_8_10	Share of outstanding loans that were originated 7.01 – 10.00 years ago
		Greater Than 10 Years	PCT_TENURE_11PL	Share of outstanding loans that were originated more than 10 years ago
Percent Market Share	Government		PCT_G0VERNMENT	Government insured/guaranteed/direct loans
	Enterprise		PCT_ENTERPRISE	Non-government loans acquired by an Enterprise
	Other Conventional		PCT_OTHER	Non-government, non-enterprise loans, includes jumbo market
*Mark-to-market loan-to-value = current unpaid principal balance / ((origination property value / origination HPI) X current HPI)				
**https://www.experian.com/blogs/ask-experian/credit-education/score-basics/what-is-a-good-credit-score				

RESIDENTIAL MORTGAGE PERFORMANCE STATISTICS AS OF THE END OF THE QUARTER

Series Descriptions	SERIESID	Notes
Percent 30 or 60 Days Past Due Date	PD3060	Number of active loans at least 30 or 60 days past due date (subject to the stale account rule) at the end of the quarter, divided by all active loans at the end of the quarter.
Percent 90 to 180 Days Past Due Date	PD90180	Number of active loans at active least 90, 120, 150 or 180 days past due data (subject to the stale account rule) at the end of the quarter, divided by all active loans at the end of the quarter.
Percent in the Process of Foreclosure, Bankruptcy, or Deed in Lieu	FBD	Number of active loans in the process of foreclosure, bankruptcy or deed in lieu (subject to the stale account rule) at the end of the quarter, divided by all active loans at the end of the quarter.
Percent in Forbearance	FBR	Number of active loans indicated as being in forbearance at the end of the quarter, divided by all active loans at the end of the quarter.

RESIDENTIAL MORTGAGE PERFORMANCE STATISTICS NOTES

Notes	Descriptions
Active Loans	Mortgage loans that are not closed or terminated for which there exists performance data.
Loans Recently Originated	It may take months for newly originated loans to appear in the credit history. Even though the performance classification is missing, these loans are treated as current until a valid performance code is found and are included in the denominator.
Timing of Reported Loan Performance	Application of Metro2® credit bureau reporting guidelines can affect the timing of the reporting of loan performance status, particularly for those servicers that report at the end of a calendar month.
Credit History Suppression	Credit history of an individual is suppressed when the individual disputes his or her credit report. Credit histories of individuals affected by federally declared natural disasters are also suppressed in the affected regions and time periods.
Credit Purge Seven Years After Default	Per Fair Credit Reporting Act (FCRA) rules, credit history of a loan is purged seven years after the loan first goes into default. To create the historical NMDB, two credit bureau archives were used: the first archive was obtained at the end of December 2005, and the second archive was obtained six and half years later at the end of June 2012. Reconciliation of the two archives was done carefully. However, as a result of the FCRA rules, a number of loans that were in a state of past due at the end of 2005 had been purged from the credit bureau data in the June 2012 archive. Through a limited matching of loan records to intermediate archives, the dissolution of many of these loans were resolved. However, NMDB has some undercounting of seriously past due loans from 2006 to 2012, but the undercounting diminishes the closer the time period is to the end of 2012.

ADDITIONAL RESIDENTIAL MORTGAGE PERFORMANCE STATISTICS CONCEPTS

Concept	Definition
Days Past Due	The percent days past due in the Table tab reflect what a person sees when they request a credit report. The days past due follow the Metro 2® credit bureau reporting guidelines, such that loans are classified as current or past due 29 or fewer days; 30 to 59 days past due; 60 to 89 days past due; 90 to 119 days past due; 120 to 149 days past due; 150 to 179 days past due; and 180 or more days past due. For more information on alternative measures of mortgage performance, see National Mortgage Database Technical Report 1.2, October 30, 2017.
Stale Account Rule	For loan performance and forbearance status beginning 2012, a three-month stale account rule is used, i.e., if a quarter-ending performance code is missing, the stale account rule requires looking back month by month up to two months until an actual performance code is recorded and that performance code is applied to the current month. For loan performance prior to 2012, a six-month stale account rule is used. Additionally, a 24-month rule is applied to loans that are 180 or more days past due or in the process of foreclosure, bankruptcy, or deed in lieu.
Reporting Lag and Rapidly Changing Mortgage Volumes	Due to the time lag in the reporting of new mortgages to the credit bureaus (up to 6 months), performance statistics reported in the latest two quarters should be treated as preliminary estimates that may be revised in the future as the reporting gap closes. Generally initial estimates of delinquency are higher than the revised numbers. During periods of higher-than-normal origination activity in the mortgage market, the effect of the reporting lag could be more acute.

Appendix E

NAMES OF GEOGRAPHY: CENSUS REGIONS, CENSUS DIVISIONS AND STATES

Census Region	Census Division	States
Northeast	New England	Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut
	Middle Atlantic	New York, New Jersey, Pennsylvania
Midwest	East North Central	Ohio, Indiana, Illinois, Michigan, Wisconsin
	West North Central	Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas
South	South Atlantic	Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida
	East South Central	Kentucky, Tennessee, Alabama, Mississippi
	West South Central	Arkansas, Louisiana, Oklahoma, Texas
West	Mountain	Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada
	Pacific	Washington, Oregon, California, Alaska, Hawaii

NAMES AND CODES OF GEOGRAPHY: STATES

State Name	Postal Code	FIPS Code	State Name	Postal Code	FIPS Code
Alabama	AL	01	Montana	MT	30
Alaska	AK	02	Nebraska	NE	31
Arizona	AZ	04	Nevada	NV	32
Arkansas	AR	05	New Hampshire	NH	33
California	CA	06	New Jersey	NJ	34
Colorado	CO	08	New Mexico	NM	35
Connecticut	CT	09	New York	NY	36
Delaware	DE	10	North Carolina	NC	37
District of Columbia	DC	11	North Dakota	ND	38
Florida	FL	12	Ohio	OH	39
Georgia	GA	13	Oklahoma	OK	40
Hawaii	HI	15	Oregon	OR	41
Idaho	ID	16	Pennsylvania	PA	42
Illinois	IL	17	Rhode Island	RI	44
Indiana	IN	18	South Carolina	SC	45
Iowa	IA	19	South Dakota	SD	46
Kansas	KS	20	Tennessee	TN	47
Kentucky	KY	21	Texas	TX	48
Louisiana	LA	22	Utah	UT	49
Maine	ME	23	Vermont	VT	50
Maryland	MD	24	Virginia	VA	51
Massachusetts	MA	25	Washington	WA	53
Michigan	MI	26	West Virginia	WV	54
Minnesota	MN	27	Wisconsin	WI	55
Mississippi	MS	28	Wyoming	WY	56
Missouri	MO	29			

NAMES AND CODES OF GEOGRAPHY: 100 METRO AREAS

Metro Area	MSA Code
Akron, OH	10420
Albany-Schenectady-Troy, NY	10580
Albuquerque, NM	10740
Allentown-Bethlehem-Easton, PA-NJ	10900
Anaheim-Santa Ana-Irvine, CA (MSAD)	11244
Atlanta-Sandy Springs-Alpharetta, GA	12060
Austin-Round Rock-Georgetown, TX	12420
Bakersfield, CA	12540
Baltimore-Columbia-Towson, MD	12580
Baton Rouge, LA	12940
Birmingham-Hoover, AL	13820
Boise City, ID	14260
Boston, MA (MSAD)	14454
Bridgeport-Stamford-Norwalk, CT	14860
Buffalo-Cheektowaga, NY	15380
Cambridge-Newton-Framingham, MA (MSAD)	15764
Camden, NJ (MSAD)	15804
Cape Coral-Fort Myers, FL	15980
Charleston-North Charleston, SC	16700
Charlotte-Concord-Gastonia, NC-SC	16740
Chicago-Naperville-Evanston, IL (MSAD)	16984
Cincinnati, OH-KY-IN	17140
Cleveland-Elyria, OH	17460
Colorado Springs, CO	17820
Columbia, SC	17900
Columbus, OH	18140
Dallas-Plano-Irving, TX (MSAD)	19124
Dayton-Kettering, OH	19430
Denver-Aurora-Lakewood, CO	19740
Detroit-Dearborn-Livonia, MI (MSAD)	19804
El Paso, TX	21340
Elgin, IL (MSAD)	20994
Fort Lauderdale-Pompano Beach-Sunrise, FL (MSAD)	22744
Fort Worth-Arlington-Grapevine, TX (MSAD)	23104
Frederick-Gaithersburg-Rockville, MD (MSAD)	23224
Fresno, CA	23420
Gary, IN (MSAD)	23844

(Continued)

NAMES AND CODES OF GEOGRAPHY: 100 METRO AREAS (Continued)

Metro Area	MSA Code
Grand Rapids-Kentwood, MI	24340
Greensboro-High Point, NC	24660
Greenville-Anderson, SC	24860
Hartford-East Hartford-Middletown, CT	25540
Houston-The Woodlands-Sugar Land, TX	26420
Indianapolis-Carmel-Anderson, IN	26900
Jacksonville, FL	27260
Kansas City, MO-KS	28140
Knoxville, TN	28940
Lake County-Kenosha County, IL-WI (MSAD)	29404
Las Vegas-Henderson-Paradise, NV	29820
Little Rock-North Little Rock-Conway, AR	30780
Los Angeles-Long Beach-Glendale, CA (MSAD)	31084
Louisville/Jefferson County, KY-IN	31140
Memphis, TN-MS-AR	32820
Miami-Miami Beach-Kendall, FL (MSAD)	33124
Milwaukee-Waukesha, WI	33340
Minneapolis-St. Paul-Bloomington, MN-WI	33460
Montgomery County-Bucks County-Chester County, PA (MSAD)	33874
Nashville-Davidson--Murfreesboro--Franklin, TN	34980
Nassau County-Suffolk County, NY (MSAD)	35004
New Haven-Milford, CT	35300
New Orleans-Metairie, LA	35380
New York-Jersey City-White Plains, NY-NJ (MSAD)	35614
Newark, NJ-PA (MSAD)	35084
North Port-Sarasota-Bradenton, FL	35840
Oakland-Berkeley-Livermore, CA (MSAD)	36084
Oklahoma City, OK	36420
Omaha-Council Bluffs, NE-IA	36540
Orlando-Kissimmee-Sanford, FL	36740
Oxnard-Thousand Oaks-Ventura, CA	37100
Philadelphia, PA (MSAD)	37964
Phoenix-Mesa-Chandler, AZ	38060
Pittsburgh, PA	38300
Portland-Vancouver-Hillsboro, OR-WA	38900
Providence-Warwick, RI-MA	39300
Raleigh-Cary, NC	39580
Richmond, VA	40060

NAMES AND CODES OF GEOGRAPHY: 100 METRO AREAS (Continued)

Metro Area	MSA Code
Riverside-San Bernardino-Ontario, CA	40140
Rochester, NY	40380
Sacramento-Roseville-Folsom, CA	40900
Salt Lake City, UT	41620
San Antonio-New Braunfels, TX	41700
San Diego-Chula Vista-Carlsbad, CA	41740
San Francisco-San Mateo-Redwood City, CA (MSAD)	41884
San Jose-Sunnyvale-Santa Clara, CA	41940
Seattle-Bellevue-Kent, WA (MSAD)	42644
St. Louis, MO-IL	41180
Stockton, CA	44700
Syracuse, NY	45060
Tacoma-Lakewood, WA (MSAD)	45104
Tampa-St. Petersburg-Clearwater, FL	45300
Tucson, AZ	46060
Tulsa, OK	46140
Urban Honolulu, HI	46520
Virginia Beach-Norfolk-Newport News, VA-NC	47260
Warren-Troy-Farmington Hills, MI (MSAD)	47664
Washington-Arlington-Alexandria, DC-VA-MD-WV (MSAD)	47894
West Palm Beach-Boca Raton-Boynton Beach, FL (MSAD)	48424
Wichita, KS	48620
Wilmington, DE-MD-NJ (MSAD)	48864
Winston-Salem, NC	49180
Worcester, MA-CT	49340