Single-Family Loan-Level Dataset General User Guide

October 2024

Introduction

The information provided in this document serves as a reference for understanding the Single-Family Loan-Level Dataset (the "Dataset"). Since April 2021, Freddie Mac has two datasets:

- **Standard Dataset**: Loan-level origination, monthly loan performance, and actual loss data on fully amortizing fixed-rate Single-Family mortgages[1] that Freddie Mac acquired with origination dates from 1999 to the Origination Cutoff Date (see Release Notes for details). This population closely resembles mortgages that are eligible for the Single-Family Credit Risk Transfer ("CRT") transactions. This dataset is typically refreshed quarterly.

- **Non-Standard Dataset**: Loan-level origination, monthly loan performance, and actual loss data on Single-Family mortgages that are excluded from the Standard Dataset for having certain loan characteristics (see "Loan Selection Criteria and Data Overview" section) and that Freddie Mac acquired with origination dates from 1999 to the Origination Cutoff Date of Release 30, the last refresh of the Non-Standard dataset. This dataset is not expected to be updated going forward.

Freddie Mac is making the Dataset available at the direction of its regulator, the Federal Housing Finance Agency (FHFA), as part of an effort to increase transparency and help investors build more accurate credit performance models in support of ongoing and future credit risk-sharing transactions highlighted in FHFA's 2024 Conservatorship Scorecard[2].

The Standard Dataset is a "living" dataset, and as such may periodically be corrected or updated over time.

Freddie Mac does not guarantee the Dataset is complete or error-free and use of the Dataset is entirely at your own risk. Freddie Mac will have no liability to you or any third-party for or arising out of your use of the Dataset. The Dataset is provided on an "as is", as available basis, and Freddie Mac expressly disclaims all warranties with respect thereto, including, without limitation, warranties of non-infringement, merchantability and fitness for a particular purpose. Freddie Mac does not warrant that the data will be error-free, corrected or provided free of interruption. No oral or written information, advice or representations provided by Freddie Mac or any of its officers, directors, employees, agents, or subcontractors will create a warranty.

Loan Selection Criteria & Data Overview

Freddie Mac's Single-Family Loan-Level Dataset contains loans originated from January 1, 1999 through the "Origination Cutoff Date", with monthly loan performance data through the "Performance Cutoff Date", that were sold to Freddie Mac or that back Freddie Mac Participation Certificates (PCs). See Release Notes for Origination and Performance Cutoff Dates[3].

The disclosure is separated into two separate datasets: a Standard Dataset which closely resembles CRT eligibility criteria and a Non-Standard Dataset for loans that are typically ineligible to be included in CRT transactions.

The following types of mortgages will be available in the Standard Dataset:

- Fully amortizing 10-, 15-, 20-, 30-, and 40-year fixed-rate mortgages

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[1] The terms "mortgage(s)" and "loan(s)" are used interchangeably throughout the document.

[2] The 2024 Conservatorship Scorecard can be found at: https://www.fhfa.gov/sites/default/files/2024-03/2024-Scorecard_1.pdf

[3] The Dataset includes loans which may have been seasoned prior to purchase by Freddie Mac, as well as certain types of mortgages, such as construction-to-perm loans (also known as "converted mortgages") and seller-owned modified mortgages, which are reported to Freddie Mac with the original note date of the mortgage and the converted or modified First Payment Date.

- Mortgages categorized as having verified or waived documentation (i.e. "full documentation")[4]
- Relief Refinance mortgages
- Home Possible® Mortgages originated on or after March 1, 2015

The following types of mortgages are available in the Non-Standard Dataset:

- Adjustable-Rate Mortgages (ARMs), Initial Interest, balloons, and any mortgages with step rates
- Government-insured mortgages, including Federal Housing Administration/Veterans Affairs (FHA/VA), Guaranteed Rural Housing (GRH), and HUD-Guaranteed Section 184 Native American mortgages
- Home Possible® Mortgages originated on or prior to February 28, 2015
- Other affordable mortgages (including lender branded affordable loan products) that are not part of the Home Possible® program
- Mortgages delivered to Freddie Mac under alternate agreements
- Mortgages for which the documentation is not verified or not waived
- Mortgages associated with Mortgage Revenue Bonds purchased by Freddie Mac
- Mortgages delivered to Freddie Mac with credit enhancements other than primary mortgage insurance, with the exception of certain lender-negotiated credit enhancements

Loan performance information in the Dataset includes the monthly loan balance, delinquency status, and certain information up to and including the earliest of the following termination events:
- Prepaid or Matured (Voluntary Payoff)
- Third Party Sale
- Short Sale or Charge Off
- Defect prior to Property Disposition
- REO Disposition
- Note Sale
- Reperforming Loan Sale

Actual Loss data components of Net Sale Proceeds, Expenses (Legal Costs, Maintenance and Preservation Costs, Taxes and Insurance, & Miscellaneous Expenses), MI Recoveries, Non-MI Recoveries, Zero Balance Removal UPB (disclosed for all Zero Balances, not just dispositions), and Delinquent Accrued Interest will be disclosed at property disposition.

Mortgages which were found to have a defect after a termination event but prior to the Performance Cutoff Date are identified in the Dataset. Mortgages that were modified from the original loan terms are also identified in the Dataset. Only approved and closed workouts (e.g., short sales, modifications, and deeds-in-lieu of foreclosure) prior to the Performance Cutoff Date are included in the Dataset. The rules for how these loans are identified and tracked in the Datasets are explained in more detail in the "How to Interpret the Data" section of this document.

Freddie Mac is the Master Servicer for all loans in the Dataset.

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[4] Generally, Freddie Mac requires that Sellers of mortgage loans document or verify loan application information about the Borrower's income, assets and employment. Sellers' documentation or verification can take several forms; for example, Sellers may require that a Borrower provide pay stubs or W-2 or 1099 forms to verify employment and income and depository and brokerage statements to verify assets. In some cases, because of the measured creditworthiness of the Borrower (for example, credit score) and loan attributes (for example, a refinance loan or low loan-to-value ratio), a Seller may require a reduced level of documentation or verification or may waive its general documentation or verification requirements. In other cases, pursuant to programs offered by lenders, Borrowers may elect to provide a reduced level of documentation or verification or may elect to provide no documentation or verification of some or all of this information in a loan application. Standards to qualify for reduced levels of documentation and for waivers of documentation based on creditworthiness, and what constitutes a material reduced level of documentation, may vary among Sellers. If Freddie Mac agrees with a Seller's decision to underwrite the Borrower using reduced documentation or no documentation, Freddie Mac will generally require that Sellers deliver a special code in connection with the delivery of such mortgage loans. Freddie Mac monitors the performance of such loans to determine whether they continue to perform at least as well as traditional full documentation loans.

Dataset Overview

Single-Family Loan-Level Dataset

The Standard Dataset and the Non-Standard Dataset will follow the exact same data format. For each calendar quarter for the corresponding dataset, there is one file containing loan origination data and one file containing monthly performance data for each loan in the origination data file. Refer to the "File Layout and Data Dictionary" section of this document for more information on what data is contained in each file.

Single-Family Loan-Level Dataset Sample

Freddie Mac has created a smaller dataset for those who may not require, or have the capability to download, the full Dataset. The sample dataset is a simple random sample[5] of 50,000 loans selected from each full vintage year and a proportionate number of loans from each partial vintage year of the Standard Dataset. Each vintage year has one origination data file and one corresponding monthly performance data file, containing the same loan-level data fields as those included in the full Dataset. Due to the size of the dataset, the data has been broken up and compressed as detailed below. The files are organized chronologically by year and quarter.

Dataset Naming Convention

Dataset	File Name Format	File Type	Data Type	Delimiter
Standard	historical_data_YYYYQn.zip	historical_data_YYYYQn.txt	Origination	Pipe ("|")
		historical_data_time_YYYYQn.txt	Performance	
Non-Standard	historical_data_excl_YYYYQn.zip	historical_data_excl_YYYYQn.txt	Origination	Pipe ("|")
		historical_data_excl_time_YYYYQn.txt	Performance	
Sample	sample_YYYY.zip	sample_orig_YYYY.txt	Origination	Pipe ("|")
		sample_svcg_YYYY.txt	Performance	

Clarity Data Intelligence®

Clarity Data Intelligence® is our free tool that allows analysis of the Standard Dataset. It allows filtering and summarization by key loan attributes and performance metrics. When accessing the tool, use the 'Historical' menu to view the Standard Dataset dashboards. You can access Clarity Data Intelligence® directly at the following link:

https://claritybi.freddiemac.com/MicroStrategyLibrary/plugins/clarity/indexCRT.html

File Layout & Data Dictionary

This section provides information regarding the layout of each origination and monthly performance data file, in addition to information about each of the data elements contained within each file type. On the Single Family Loan-Level Dataset website we provide a SAS script that can be used to parse and combine the dataset files. The information is structured as follows:

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[5] A sampling method by which a subset of a population is chosen, where each member of the subset has an equal probability of being chosen once from the larger population. A simple random sample is meant to be an unbiased representation of the larger population.

Field	Description
Column Position	Position of the Column in the disclosure file.
Formal Name and Definition	Name and definition of the loan-level data element.
Valid Values/Calculations	Allowable values for the specific data field and the calculations used (if applicable).
Type (Data Type)	The type of data found in each column: • Alpha – contains only letters • Alpha-numeric – contains letters and numbers • Numeric – contains only numbers • Date – represents a specific date (Y = Year, M = Month) Example: YYYYMM (201207) = July 2012
Length	Represents the maximum number of characters allowed for the data field.

Origination Data File

ORIGINATION DATA FILE				
COLUMN POSITION[6]	FORMAL NAME AND DEFINITION	VALID VALUES/ CALCULATIONS	TYPE	LENGTH
1	**CREDIT SCORE** - A number, prepared by third parties, summarizing the borrower's creditworthiness, which may be indicative of the likelihood that the borrower will timely repay future obligations. Generally, the credit score disclosed is the score known at the time of acquisition and is the score used to originate the mortgage.	• 300 - 850 • 9999 = Not Available Credit Scores < 300 or > 850 will be shown as Not Available.	Numeric	4
2	**FIRST PAYMENT DATE** - The date of the first scheduled mortgage payment due under the terms of the mortgage note.	• YYYYMM	Date	6
3	**FIRST TIME HOMEBUYER FLAG** - Indicates whether the Borrower, or one of a group of Borrowers, is an individual who (1) is purchasing the mortgaged property, (2) will reside in the mortgaged property as a primary residence, and (3) had no ownership interest (sole or joint) in a residential property during the three-year period preceding the date of the purchase of the mortgaged property. With certain limited exceptions, a displaced homemaker or single parent may also be considered a First-Time Homebuyer if the individual had no ownership interest in a residential property during the preceding three-year period other than an ownership interest in the marital residence with a spouse.	• Y = Yes • N = No • 9 = Not Available or Not Applicable	Alpha	1
4	**MATURITY DATE** - The month in which the final monthly payment on the mortgage is scheduled to be made as stated on the original mortgage note.	• YYYYMM	Date	6
5	**METROPOLITAN STATISTICAL AREA (MSA) OR METROPOLITAN DIVISION** – This disclosure will be based on the designation of the Metropolitan Statistical Area or Metropolitan Division generally as of the loan funding date. Metropolitan Statistical Areas (MSAs) are defined by the United States Office of Management and Budget (OMB) and have at least one urbanized area with a population of 50,000 or more inhabitants. An MSA containing a single core with a population of 2.5 million or more may be divided into smaller groups of counties that OMB refers to as Metropolitan Divisions. If an MSA applies to a mortgaged property, the applicable five-digit value is disclosed; however, if the mortgaged property also falls within a Metropolitan Division classification, the applicable five-digit value for the Metropolitan Division takes precedence and is disclosed instead. This disclosure will not be updated to reflect any subsequent	• Metropolitan Division or MSA Code. • Null indicates that the area in which the mortgaged property is located is a) neither an MSA nor a Metropolitan Division, or b) unknown.	Numeric	5

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[6] The header record row has been removed from all files in the Dataset and sample dataset; the position of columns in each file remains unchanged. We have a simple file layout available on our website at https://www.freddiemac.com/fmac-resources/research/pdf/file_layout.xlsx

COLUMN POSITION[6]	FORMAL NAME AND DEFINITION	VALID VALUES/ CALCULATIONS	TYPE	LENGTH
	changes in designations of MSAs, Metropolitan Divisions or other classifications.			
6	**MORTGAGE INSURANCE PERCENTAGE (MI %)** - The percentage of loss coverage on the loan, at the time of Freddie Mac's purchase of the mortgage loan that a mortgage insurer is providing to cover losses incurred as a result of a default on the loan. Only primary mortgage insurance that is purchased by the Borrower, lender or Freddie Mac is disclosed. Mortgage insurance that constitutes "credit enhancement" that is not required by Freddie Mac's Charter is not disclosed. Amounts of mortgage insurance reported by Sellers that are less than 1% or greater than 55% will be disclosed as "Not Available," which will be indicated 999. No MI will be indicated by zero.	• 1% - 55% • 0 = No MI • 999 = Not Available	Numeric	3
7	**NUMBER OF UNITS** - Denotes whether the mortgage is a one-, two-, three-, or four-unit property.	• 1 = one-unit • 2 = two-unit • 3 = three-unit • 4 = four-unit • 99 = Not Available	Numeric	2
8	**OCCUPANCY STATUS** - Denotes whether the mortgage type is owner occupied, second home, or investment property.	• P = Primary Residence • I = Investment Property • S = Second Home • 9 = Not Available	Alpha	1
9	**ORIGINAL COMBINED LOAN-TO-VALUE (CLTV)** – In the case of a purchase mortgage loan, the ratio is obtained by dividing the original mortgage loan amount on the note date plus any secondary mortgage loan amount disclosed by the Seller by the lesser of the mortgaged property's appraised value on the note date or its purchase price. In the case of a refinance mortgage loan, the ratio is obtained by dividing the original mortgage loan amount on the note date plus any secondary mortgage loan amount disclosed by the Seller by the mortgaged property's appraised value on the note date. If the secondary financing amount disclosed by the Seller includes a home equity line of credit, then the CLTV calculation reflects the disbursed amount at closing of the first lien mortgage loan, not the maximum loan amount available under the home equity line of credit. In the case of a seasoned mortgage loan, if the Seller cannot warrant that the value of the mortgaged property has not declined since the note date, Freddie Mac requires that the Seller must provide a new appraisal value, which is used in the CLTV calculation. In certain cases, where the Seller delivered a loan to Freddie Mac with a special code indicating additional secondary mortgage loan amounts, those amounts may have been included in the CLTV calculation. If the CLTV is < LTV, set the CLTV to 'Not Available.' This disclosure is subject to the widely varying standards originators use to verify Borrowers' secondary mortgage loan amounts and will not be updated.	2018Q1 and prior: • 6% - 200% • 999 = Not Available 2018Q2 and later: • 1% - 998% • 999 = Not Available HARP ranges: • 1% - 998% • 999 = Not Available	Numeric	3
10	**ORIGINAL DEBT-TO-INCOME (DTI) RATIO** - Disclosure of the debt to income ratio is based on (1) the sum of the borrower's monthly debt payments, including monthly housing expenses that incorporate the mortgage payment the borrower is making at the time of the delivery of the mortgage loan to Freddie Mac, divided by (2) the total monthly income used to underwrite the loan as of the date of the origination of the such loan. Ratios greater than 65% are indicated that data is Not Available. All loans in the HARP dataset will be disclosed as Not Available. This disclosure is subject to the widely varying standards originators use to verify Borrowers' assets and liabilities and will not be updated.	• 0%<DTI<=65% • 999 = Not Available HARP ranges: • 999 = Not Available	Numeric	3

ORIGINATION DATA FILE				
COLUMN POSITION[6]	**FORMAL NAME AND DEFINITION**	**VALID VALUES/ CALCULATIONS**	**TYPE**	**LENGTH**
11	**ORIGINAL UPB** - The UPB of the mortgage on the note date.	• Amount will be rounded to the nearest $1,000.	Numeric	12
12	**ORIGINAL LOAN-TO-VALUE (LTV)** - In the case of a purchase mortgage loan, the ratio obtained by dividing the original mortgage loan amount on the note date by the lesser of the mortgaged property's appraised value on the note date or its purchase price. In the case of a refinance mortgage loan, the ratio obtained by dividing the original mortgage loan amount on the note date and the mortgaged property's appraised value on the note date. In the case of a seasoned mortgage loan, if the Seller cannot warrant that the value of the mortgaged property has not declined since the note date, Freddie Mac requires that the Seller must provide a new appraisal value, which is used in the LTV calculation. For loans in the non HARP dataset, ratios below 6% or greater than 105% will be disclosed as "Not Available," indicated by 999. For loans in the HARP dataset, LTV ratios greater than 999% will be disclosed as Not Available.	2018Q1 and prior: • 6% - 105% • 999 = Not Available 2018Q2 and later: • 1% - 998% • 999 = Not Available HARP ranges: • 1% - 998% • 999 = Not Available	Numeric	3
13	**ORIGINAL INTEREST RATE** - The interest rate of the loan as stated on the note at the time the loan was originated.		Numeric Literal decimal	6
14	**CHANNEL** - Disclosure indicates whether a Broker or Correspondent, as those terms are defined below, originated or was involved in the origination of the mortgage loan. If a Third Party Origination is applicable, but the Seller does not specify Broker or Correspondent, the disclosure will indicate "TPO Not Specified". Similarly, if neither Third Party Origination nor Retail designations are available, the disclosure will indicate "TPO Not Specified." If a Broker, Correspondent or Third Party Origination disclosure is not applicable, the mortgage loan will be designated as Retail, as defined below. Broker is a person or entity that specializes in loan originations, receiving a commission (from a Correspondent or other lender) to match Borrowers and lenders. The Broker performs some or most of the loan processing functions, such as taking loan applications, or ordering credit reports, appraisals and title reports. Typically, the Broker does not underwrite or service the mortgage loan and generally does not use its own funds for closing; however, if the Broker funded a mortgage loan on a lender's behalf, such a mortgage loan is considered a "Broker" third party origination mortgage loan. The mortgage loan is generally closed in the name of the lender who commissioned the Broker's services. Correspondent is an entity that typically sells the Mortgages it originates to other lenders, which are not Affiliates of that entity, under a specific commitment or as part of an ongoing relationship. The Correspondent performs some, or all, of the loan processing functions, such as: taking the loan application; ordering credit reports, appraisals, and title reports; and verifying the Borrower's income and employment. The Correspondent may or may not have delegated underwriting and typically funds the mortgage loans at settlement. The mortgage loan is closed in the Correspondent's name and the Correspondent may or may not service the mortgage loan. The Correspondent may use a Broker to perform some of the processing functions or even to fund the loan on its behalf; under such circumstances, the mortgage loan is considered a "Broker" third party origination mortgage loan, rather than a "Correspondent" third party origination mortgage loan. Retail Mortgage is a mortgage loan that is originated, underwritten and funded by a lender or its Affiliates. The mortgage loan is closed in the name of the lender or its Affiliate and if it is sold to Freddie Mac, it is sold by the lender or its Affiliate that originated it. A mortgage loan that a Broker or Correspondent completely or partially originated, processed, underwrote, packaged, funded or closed is not considered a Retail mortgage loan.	• R = Retail • B = Broker • C = Correspondent • T = TPO Not Specified • 9 = Not Available	Alpha	1

COLUMN POSITION[6]	FORMAL NAME AND DEFINITION	VALID VALUES/ CALCULATIONS	TYPE	LENGTH
	For purposes of the definitions of Correspondent and Retail, "Affiliate" means any entity that is related to another party as a consequence of the entity, directly or indirectly, controlling the other party, being controlled by the other party, or being under common control with the other party.			
15	**PREPAYMENT PENALTY MORTGAGE (PPM) FLAG** - Denotes whether the mortgage is a PPM. A PPM is a mortgage with respect to which the borrower is, or at any time has been, obligated to pay a penalty in the event of certain repayments of principal.	• Y = PPM • N = Not PPM	Alpha	1
16	**AMORTIZATION TYPE** - Denotes that the product is a fixed-rate mortgage or adjustable-rate mortgage.	• FRM – Fixed Rate Mortgage • ARM – Adjustable Rate Mortgage	Alpha	5
17	**PROPERTY STATE** - A two-letter abbreviation indicating the state or territory within which the property securing the mortgage is located.	• AL, TX, VA, etc.	Alpha	2
18	**PROPERTY TYPE** - Denotes whether the property type secured by the mortgage is a condominium, leasehold, planned unit development (PUD), cooperative share, manufactured home, or Single-Family home. If the Property Type is Not Available, this will be indicated by 99.	• CO = Condo • PU = PUD • MH = Manufactured Housing • SF = Single-Family • CP = Co-op • 99 = Not Available	Alpha	2
19	**POSTAL CODE** – The postal code for the location of the mortgaged property	• ###00, where "###" represents the first three digits of the 5-digit postal code • 00 = Unknown	Numeric	5
20	**LOAN SEQUENCE NUMBER** - Unique identifier assigned to each loan.	PYYQnXXXXXXX • **P**roduct F = FRM and A = ARM; • YYQn = origination year and quarter; and, • XXXXXXX = randomly assigned digits	Alpha-numeric	12
21	**LOAN PURPOSE** - Indicates whether the mortgage loan is a Cash-out Refinance mortgage, No Cash-out Refinance mortgage, or a Purchase mortgage. Generally, a Cash-out Refinance mortgage loan is a mortgage loan in which the use of the loan amount is not limited to specific purposes. A mortgage loan placed on a property previously owned free and clear by the Borrower is always considered a Cash-out Refinance mortgage loan. Generally, a No Cash-out Refinance mortgage loan is a mortgage loan in which the loan amount is limited to the following uses: Pay off the first mortgage, regardless of its age Pay off any junior liens secured by the mortgaged property, that were used in their entirety to acquire the subject property Pay related closing costs, financing costs and prepaid items, and Disburse cash out to the Borrower (or any other payee) not to exceed 2% of the new refinance mortgage loan or $2,000, whichever is less. As an exception to the above, for construction conversion mortgage loans and renovation mortgage loans, the amount of the interim construction financing secured by the mortgaged property is considered an amount used to pay off the first mortgage. Paying off unsecured liens or construction costs paid by the Borrower outside of the secured interim construction financing is considered cash out to the Borrower, if greater than $2000 or 2% of loan amount. This disclosure is subject to various special exceptions used by Sellers to determine whether a mortgage loan is a No Cash-out Refinance mortgage loan.	• P = Purchase • C = Refinance - Cash Out • N = Refinance - No Cash Out • R = Refinance - Not Specified • 9 =Not Available	Alpha	1

ORIGINATION DATA FILE				
COLUMN POSITION[6]	**FORMAL NAME AND DEFINITION**	**VALID VALUES/ CALCULATIONS**	**TYPE**	**LENGTH**
22	**ORIGINAL LOAN TERM** - A calculation of the number of scheduled monthly payments of the mortgage based on the First Payment Date and Maturity Date.	• Calculation: (Loan Maturity Date (MM/YY) – Loan First Payment Date (MM/YY) + 1)	Numeric	3
23	**NUMBER OF BORROWERS** - The number of Borrower(s) who are obligated to repay the mortgage note secured by the mortgaged property. Disclosure denotes only whether there is one borrower, or more than one borrower associated with the mortgage note. This disclosure will not be updated to reflect any subsequent assumption of the mortgage note.	2018Q1 and prior: • 01 = 1 borrower • 02 = > 1 borrowers • 99 = Not Available 2018Q2 and later: • 01 = 1 borrower • 02 = 2 borrowers • 03 = 3 borrowers … • 09 = 9 borrowers • 10 = 10 borrowers • 99 = Not Available	Numeric	2
24	**SELLER NAME** - The entity acting in its capacity as a seller of mortgages to Freddie Mac at the time of acquisition. Seller Name will be disclosed for sellers with a total Original UPB representing 1% or more of the total Original UPB of all loans in the Dataset for a given calendar quarter. Otherwise, the Seller Name will be set to "Other Sellers".	Name of the seller, or "Other Sellers"	Alpha-numeric	60
25	**SERVICER NAME** - The entity acting in its capacity as the servicer of mortgages to Freddie Mac as of the last period for which loan activity is reported in the Dataset. Servicer Name will be disclosed for servicers with a total Original UPB representing 1% or more of the total Original UPB of all loans in the Dataset for a given calendar quarter. Otherwise, the Servicer Name will be set to "Other Servicers".	Name of the servicer, or "Other Servicers"	Alpha-numeric	60
26	**SUPER CONFORMING FLAG** – For mortgages that exceed conforming loan limits with origination dates on or after 10/1/2008 and were delivered to Freddie Mac on or after 1/1/2009	• Y = Yes • Space (1) = Not Super Conforming	Alpha	1
27	**PRE-RELIEF REFINANCE LOAN SEQUENCE NUMBER –** The Loan Sequence Number link that associates a Relief Refinance loan to the Loan Sequence Number assigned to the loan from which it was refinanced within in the Single-Family Loan-Level Dataset. Note: Populated only for loans where the Relief Refinance Indicator is set to Y. All other loans will be blank.	PYYQnXXXXXXX • Product F = FRM and A = ARM; • YYQn = origination year and quarter; and, • XXXXXXX = randomly assigned digits	Alpha-numeric	12
28	**PROGRAM INDICATOR –** The indicator that identifies if a loan participates in and of the Freddie Mac programs listed in the valid values. Note: The standard dataset discloses these enumerations for loans originated on or after March 1, 2015. The Non-Standard dataset discloses enumerations for loans originated under the HP program between 1999 and February 28, 2015. Underwriting standards for Home Possible prior to March 1, 2015 may be different than the current standards.	H = Home Possible F = HFA Advantage R= Refi Possible 9 = Not Available or Not Applicable	Alpha-numeric	1
29	**RELIEF REFINANCE INDICATOR –** Indicator that identifies whether the loan is part of Freddie Mac's Relief Refinance Program. Loans which are both a Relief Refinance and have an Original Loan-to-Value above 80 are HARP loans.	Y = Relief Refinance Loan Space = Non-Relief Refinance loan	Alpha	1
30	**PROPERTY VALUATION METHOD –** The indicator denoting which method was used to obtain a property appraisal, if any. Note: Populated for loans originated on or after 1/1/2017.	1 = ACE Loans 2 = Full Appraisal 3 = Other Appraisals (Desktop, driveby, external, AVM) 4 = ACE + PDR 9 = Not Available	Numeric	1

ORIGINATION DATA FILE				
COLUMN POSITION[6]	**FORMAL NAME AND DEFINITION**	**VALID VALUES/ CALCULATIONS**	**TYPE**	**LENGTH**
31	**INTEREST ONLY INDICATOR (I/O INDICATOR) -** The indicator denoting whether the loan only requires interest payments for a specified period beginning with the first payment date.	Y = Yes N = No	Alpha	1
32	**MI CANCELLATION INDICATOR -** The indicator denoting if the mortgage insurance has been reported as cancelled after the time of Freddie Mac's purchase of the mortgage loan. If a loan did not have mortgage insurance at the time of Freddie Mac's purchase of the mortgage loan, then this field will be disclosed as "Not Applicable."	Y = Canceled N = Not Canceled 7 = Not Applicable 9 = Not Disclosed	Alpha Numeric	1

Monthly Performance Data File

MONTHLY PERFORMANCE DATA FILE				
COLUMN POSITION	**FORMAL NAME AND DEFINITION**	**VALID VALUES/ CALCULATIONS**	**TYPE**	**LENGTH**
1	**LOAN SEQUENCE NUMBER** - Unique identifier assigned to each loan.	PYYQnXXXXXXX • Product F = FRM and A = ARM; • YYQn = origination year and quarter; and, • XXXXXXX = randomly assigned digits	Alpha-numeric	12
2	**MONTHLY REPORTING PERIOD** – The as-of month for loan information contained in the loan record.	YYYYMM	Date	6
3	**CURRENT ACTUAL UPB** - The Current Actual UPB reflects the mortgage ending balance as reported by the servicer for the corresponding monthly reporting period. For fixed rate mortgages, this UPB is derived from the mortgage balance as reported by the servicer and includes any scheduled and unscheduled principal reductions applied to the mortgage. For mortgages with loan modifications or payment deferrals, the current actual unpaid principal balance could include non-interest bearing "deferred" amounts. The Current Actual UPB will equal the sum of the Current Interest-Bearing UPB (the amortizing principal balance of the mortgage) and the Current Non-Interest Bearing UPB. If the Current Actual UPB is greater than $500 then the value will be rounded to the nearest $1,000 for the first six payment periods. The Current Actual UPB is not rounded after a modification occurs.	**Calculation:** (interest bearing UPB) + (non-interest bearing UPB)	Numeric Literal decimal	12
4	**CURRENT LOAN DELINQUENCY STATUS** – A value corresponding to the number of days the borrower is delinquent, based on the due date of last paid installment ("DDLPI") reported by servicers to Freddie Mac, and is calculated under the Mortgage Bankers Association (MBA) method. If a loan has been acquired by REO, then the Current Loan Delinquency Status will reflect the value corresponding to that status (instead of the value corresponding to the number of days the borrower is delinquent).	• 0 = Current, or less than 30 days delinquent • 1 = 30-59 days delinquent • 2 = 60 – 89 days delinquent • 3 = 90 – 119 days delinquent • And so on… • RA = REO Acquisition •	Alpha-numeric	3
5	**LOAN AGE** - The number of scheduled payments from the time the loan was originated up to and including the current period. For modified loans, the number of scheduled payments from the modification first payment date up to and including the current period. Note that Payment Deferrals are not considered modifications and therefore the loan age is not reset when they are completed.	**Calculation – Non-modified Loans:** ((Monthly Reporting Period) - Loan First Payment Date (MM/YY)) +1 month **Calculation – Modified Loans:** ((Monthly Reporting Period) - Modification First Payment Date (MM/YY)) +1 month	Numeric	3

MONTHLY PERFORMANCE DATA FILE

COLUMN POSITION	FORMAL NAME AND DEFINITION	VALID VALUES/ CALCULATIONS	TYPE	LENGTH
6	**REMAINING MONTHS TO LEGAL MATURITY** - The remaining number of months to the mortgage maturity date. For mortgages with loan modifications, as indicated by "Y" in the Modification Flag field, the calculation uses the modified maturity date.	**Calculation – Non-modified Loans:** (Maturity Date (MM/YY) – Monthly Reporting Period (MM/YY) **Calculation – Modified Loans:** (Modified Maturity Date (MM/YY) – Monthly Reporting Period (MM/YY)	Numeric	3
7	**DEFECT SETTLEMENT DATE -** For underwriting defects, the date on which there is the occurrence of any of the following: (a) such mortgage is repurchased by the related seller or servicer, (b) in lieu of repurchase, an alternative remedy (such as indemnification) is mutually agreed upon by both Freddie Mac and the seller or servicer or (c) Freddie Mac in its sole discretion elects to waive the enforcement of a remedy against the seller or servicer in respect of such unconfirmed underwriting defect For servicing defects, the date on which there is the occurrence of any of the following: (a) the related servicer repurchased such mortgage or made Freddie Mac whole resulting in a full recovery of losses incurred ("Make Whole") or (b) the party responsible for the representations and warranties and/or servicing obligations or liabilities with respect to the mortgage that is determined to have an unconfirmed servicing defect becomes subject to a bankruptcy, an insolvency proceeding or a receivership.	YYYYMM	Date	6
8	**MODIFICATION FLAG** – A flag indicating if the loan has been modified in the current period or a prior period.	• Y = Current Period Modification • P = Prior Period Modification • Null = Not Modified	Alpha	1
9	**ZERO BALANCE CODE** - A code indicating the reason the loan's balance was reduced to zero.	• 01 = Prepaid or Matured (Voluntary Payoff) • 02 = Third Party Sale • 03 = Short Sale or Charge Off • 09 = REO Disposition • 15 = Whole Loan sales • 16 = Reperforming loan securitizations • 96 = Defect prior to other termination event	Numeric	2
10	**ZERO BALANCE EFFECTIVE DATE** - The date on which the event triggering the Zero Balance Code took place. The period in which the event triggering the Zero Balance Code occurred	YYYYMM Space (6) = Not Applicable	Date	6
11	**CURRENT INTEREST RATE** - Reflects the current interest rate on the mortgage note, taking into account any loan modifications.		Numeric Literal Decimal	8
12	**CURRENT NON-INTEREST BEARING UPB** - The non-interest-bearing portion of the UPB for a given mortgage	$ Amount	Numeric	12
13	**DUE DATE OF LAST PAID INSTALLMENT (DDLPI)** - The due date that the loan's scheduled principal and interest is paid through, regardless of when the installment payment was actually made.	YYYYMM	Date	6
14	**MI RECOVERIES** - Mortgage Insurance Recoveries are proceeds received by Freddie Mac in the event of credit losses. These proceeds are based on claims under a mortgage insurance policy.	$ Amount.	Numeric Literal Decimal	12

COLUMN POSITION	FORMAL NAME AND DEFINITION	VALID VALUES/ CALCULATIONS	TYPE	LENGTH
	Note: The MI Recoveries field will be set to zero for loans with a Defect Settlement Date value populated.			
15	**NET SALE PROCEEDS** - The amount remitted to Freddie Mac resulting from a property disposition or loan sale (which in the case of bulk sales, may be an allocated amount) once allowable selling expenses have been deducted from the gross sales proceeds. A value of "U" indicates that the amount is unknown. Note: The Net Sale Proceeds field will be set to zero for loans with a Defect Settlement Date value populated.	$ Amount U = Unknown	Alpha-numeric Literal Decimal	14
16	**NON MI RECOVERIES** - Non-MI Recoveries are proceeds received by Freddie Mac based on confirmed defect/make whole proceeds, non-sale income such as refunds (tax or insurance), hazard insurance proceeds, rental receipts, positive escrow, and/or other miscellaneous credits. Note: The Non MI Recoveries field will be set to zero for loans with a Defect Settlement Date value populated.	$ Amount	Numeric Literal Decimal	12
17	**TOTAL EXPENSES** - Expenses will include allowable expenses that Freddie Mac bears in the process of acquiring, maintaining and/ or disposing a property (excluding selling expenses, which are subtracted from gross sales proceeds to derive net sales proceeds). This is an aggregation of Legal Costs, Maintenance and Preservation Costs, Taxes and Insurance, and Miscellaneous Expenses. Note: The Total Expenses field will be set to zero for loans with a Defect Settlement Date value populated.	$ Amount	Numeric Literal Decimal	12
18	**LEGAL COSTS -** The amount of legal costs associated with the sale of a property (but not included in Net Sale Proceeds. Note: The Legal Costs field will be set to zero for loans with a Defect Settlement Date value populated.	$ Amount	Numeric Literal Decimal	12
19	**MAINTENANCE AND PRESERVATION COSTS –**The amount of maintenance, preservation, and repair costs, including but not limited to property inspection, homeowner's association, utilities, and REO management, that is associated with the sale of a property (but not included in Net Sale Proceeds Note: The Maintenance and Preservation Costs field will be set to zero for loans with a Defect Settlement Date value populated.	$ Amount	Numeric Literal Decimal	12
20	**TAXES AND INSURANCE** – The amount of taxes and insurance owed that are associated with the sale of a property (but not included in Net Sale Proceeds Note: The Taxes and Insurance field will be set to zero for loans with a Defect Settlement Date value populated.	$ Amount	Numeric Literal Decimal	12
21	**MISCELLANEOUS EXPENSES** - Miscellaneous expenses associated with the sale of a property (but not included in Net Sale Proceeds Note: The Miscellaneous Expenses field will be set to zero for loans with a Defect Settlement Date value populated.	$ Amount	Numeric Literal Decimal	12
22	**ACTUAL LOSS CALCULATION -** Actual Loss is calculated using the below approach for loans with Zero Balance Codes of 02, 03, 09, and 15:	$ Amount	Numeric Literal Decimal	12

COLUMN POSITION	FORMAL NAME AND DEFINITION	VALID VALUES/ CALCULATIONS	TYPE	LENGTH
	Actual Loss = (Zero Balance Removal UPB – Net Sale Proceeds) + Delinquent Accrued Interest - Expenses – MI Recoveries – Non MI Recoveries. Please note that the following business rules are applied to this calculation: a. For all loans, 35 bps is used as a proxy for servicing fee, servicing fee will be used if higher than 35 bps. b. The Actual Loss will be set to zero for loans with a Defect Settlement Date value populated. c. The Actual Loss will be set to zero for loans with Net Sales Proceeds = 'U" (Net Sales Proceeds are missing), or expenses are not available. d. The Actual Loss will be set to missing for loans disposed within three months prior to the performance cutoff date. a. e. Modification Costs are not included in the calculation of the Actual Loss field			
23	**CUMULATIVE MODIFICATION COST –** The cumulative modification cost amount calculated when Freddie Mac determines such mortgage loan has experienced a rate modification event or a UPB forbearance. This amount will be calculated on a monthly basis beginning with the first reporting period a modification event is reported and disclosed in the last performance record. For example: calculate monthly modification cost as (min(Origination ANY, (Original Interest Rate - 0.35))/1200 * Current Actual UPB) – (min(Current ANY,(Current Interest Rate-0.35))/1200 * (Interest bearing UPB)) ,and aggregate each month since modification through the Performance Cutoff Date into a cumulative amount. *For loans that go through a payment deferral program, cumulative modification cost includes interest foregone on the UPB deferred by the payment deferral until the last performance record.*	$ Amount	Numeric Literal Decimal	12
24	**STEP MODIFICATION FLAG** – A Y/N flag will be disclosed for every modified loan in their current period of modification, to denote if the terms of modification agreement call for note rate to increase over time.	• Y = Step Mod • N = Non-Step Mod • Null = Loan not modified in period	Alpha	1
25	**PAYMENT DEFERRAL** – A flag indicating a loan has been granted a Payment Deferral in the current or prior period.	• Y = Current Period • P = Prior Period • Null = Not Payment Deferral	Alpha	1
26	**ESTIMATED LOAN TO VALUE (ELTV) –** A ratio indicating current LTV based on the estimated current value of the property obtained through Freddie Mac's Automated Valuation Model (AVM). For more information on our proprietary AVM please visit https://sf.freddiemac.com/tools-learning/home-value-suite/home-value-explorer Note: Only populated for April 2017 and following periods.	• 1 – 998 • 999 = Unknown • Null = Data Not Available	Numeric Literal	4
27	**ZERO BALANCE REMOVAL UPB –** The amount of total UPB remaining on the loan immediately prior to the application of the Zero Balance Code.	$ Amount	Numeric Literal Decimal	12
28	**DELINQUENT ACCRUED INTEREST** – The amount of delinquent interest owed by the borrower at the time of default. This field will only be populated for Zero Balance Codes 02, 03, 09, & 15. Note: The Delinquent Accrued Interest field will be set to zero for loans with a Defect Settlement Date value populated.	$ Amount Delinquent Accrued Interest = (Zero Balance Removal UPB – Non Interest bearing UPB) * Min(Current Interest rate – 0.35, Current Interest Rate – Servicing Fee) * (	Numeric Literal Decimal	12

MONTHLY PERFORMANCE DATA FILE

COLUMN POSITION	FORMAL NAME AND DEFINITION	VALID VALUES/ CALCULATIONS	TYPE	LENGTH
		Months between Last Principal & Interest paid-to date and zero balance date) * 30/360/100.		
29	**DELINQUENCY DUE TO DISASTER** – A flag indicating that the Servicer has reported disaster-related hardship as defined by the Freddie Mac Seller/Servicer Guide. Note: Only populated for January 2014 and following periods.	Y = Delinquency Due to Disaster Null = Not Delinquency Due to Disaster	Alpha	1
30	**BORROWER ASSISTANCE STATUS CODE –** Regardless of delinquency status, the type of assistance plan that the borrower is enrolled in that provides temporary mortgage payment relief or an opportunity to cure a mortgage delinquency over a defined period. Note: Only populated for January 2014 and following periods.	F = Forbearance R = Repayment T = Trial Period Null = No workout plan or not applicable	Alpha	1
31	**CURRENT MONTH MODIFICATION COST -** The current month modification cost amount calculated when Freddie Mac determines such mortgage loan has experienced a rate modification, principal forbearance, or Payment Deferral. This amount will be calculated on a monthly basis beginning with the first reporting period such modification event is reported and disclosed until the last performance record. For example: calculate monthly modification cost as (min(Origination ANY, (Original Interest Rate - 0.35))/1200 * Current Actual UPB) – (min(Current ANY,(Current Interest Rate-0.35))/1200 * (Interest bearing UPB)) . For a loan that is acquired by Freddie Mac Homesteps and subsequently disposed as REO, Current Month Modification Cost represents the monthly modification cost aggregated during the period between REO acquisition and REO disposition. For loans that go through a payment deferral program, modification cost is calculated as interest foregone on the UPB deferred by the payment deferral.	$ Amount	Numeric Literal Decimal	12
32	**INTEREST BEARING UPB -** The current interest bearing UPB of the modified mortgage.	$ Amount	Numeric Literal Decimal	12

Interpreting the Data

The Single-Family Loan-Level Dataset is split in calendar quarters, beginning with the first quarter of 1999 and ending with the quarter of the Origination Cutoff Date. For each calendar quarter, there is

- One Origination Data file containing loan-level origination information for all the loans originated during the quarter.
- One Performance Data file for all of the respective loans originated during the quarter.
    - All performance periods associated to a loan will be contained within the same Performance Data file.
    - Example: a loan originated in January 1999 which has not been assigned a Zero Balance Code as of January 2019 will have its 201901 period found in the 1999Q1 Performance Data file.

The monthly performance data file contains monthly loan-level credit performance and actual loss data for each loan, starting from the time of loan acquisition by Freddie Mac until the earlier of a termination event or the Performance Cutoff Date, which is the last period of performance data available for any loan in the Dataset.

Termination events are described in more detail in the section below entitled "Zero Balance Codes". Note that the monthly performance data file does not contain monthly performance information for the timeframe between loan origination and loan acquisition by Freddie Mac.

Each loan in the origination data file is assigned a unique Loan Sequence Number. The monthly Performance Data file corresponding to the Origination Data file may contain multiple records with the same Loan Sequence Number, identifying the monthly performance periods associated to a given loan. Note that Loan Sequence Numbers in the Dataset do not correspond to Loan Sequence Numbers found in existing Freddie Mac participation certificate (PC) disclosures.

Zero Balance Codes

Loans may become inactive in the Dataset for a variety of reasons, including voluntary payoffs or credit events, known as "termination events". Loans that become inactive in the Dataset due to a termination event on or before the Performance Cutoff Date will not be updated for activity in subsequent periods. Loans that were found to have defects after a termination event are the exception to this practice, as discussed in the section below entitled "Defects". The reason for loan inactivity will be indicated by the value in the Zero Balance Code field, which is set during the Monthly Reporting Period corresponding to the Zero Balance Effective Date.

If applicable, the Zero Balance Code may be set at most once for a given loan in the Dataset. The earliest occurring termination event for a loan is used to set its Zero Balance Code. If more than one termination event occurs in the same reporting period for a given loan (e.g., a loan is found to have a defect and the REO property is disposed in the same period), the higher-ranking termination event is reported in the Dataset. The table below describes each of the termination events reported in the Dataset, the associated Zero Balance Code, and the applicable priority (7 being the lowest and 1 being the highest).

Reason for Loan Termination	Zero Balance Code	Priority
Whole Loan Sale	15	1
RPL Securitizations	16	2
REO Disposition	09	3
Defect prior to Property Disposition	96	4
Short Sale or Charge Off	03	5
Third Party Sale	02	6
Prepaid or Matured (Voluntary Payoff)	01	7

Monthly Reporting Period

For a given loan, each monthly reporting period in the monthly performance data file combines data elements from multiple reporting cycles and systems at Freddie Mac. As such, perceived data anomalies may be a result of timing mismatches between default/delinquency reporting cycles and investor reporting cycles. Examples of some commonly occurring anomalies in the data are included throughout this section. In all cases, the best information available at the time the Dataset is generated, subject to operational constraints, is used.

Other reasons why the data may be imperfect include, but are not limited to:

- Seller/Servicer reporting errors: Freddie Mac relies on Seller/Servicer-reported data
- Data quality controls and systems have evolved and improved over time
- Administrative errors
- Loan delivery requirements (e.g., Form 11/13) have been updated to allow more granular reporting over time

The Monthly Reporting Period disclosed in the monthly performance data file includes the current month's accounting cycle activity for performing loans and the previous calendar month's default reporting activity for non-performing loans. It also includes termination events that occurred during the period, as indicated by the

Zero Balance Effective Date, or modifications that became effective during the period, as indicated by the Modification Flag.

For accounting cycles April 2019 and prior, Freddie Mac's accounting cycle begins on the 16th of each month and ends on the 15th of the following month, for scheduled Principal and Interest (P&I) payments due on the first of the month. If the 15th falls on a weekend or holiday, the accounting cycle ends on the previous business day. For accounting cycles May 2019 and following, the accounting cycle begins on the 1st of each month and ends on the last day of each month. The last day of the accounting cycle is the Accounting Cutoff. Unscheduled principal curtailments and prepayments received by the Accounting Cutoff date are also included in the Monthly Reporting Period. The month in which the Accounting Cutoff occurs will correspond to the Monthly Reporting Period in the Single-Family Loan-Level Dataset.

Freddie Mac's default reporting cycle is based on loan activity between the first day of the month and the last day of the month and is reported in the Single-Family Loan-Level Dataset on a one-month lagged basis. Inclusion of mortgage loans in any of the Current Loan Delinquency Status categories is based on the due date of last paid installment ("DDLPI") as reported by servicers to Freddie Mac[7], and is calculated under the Mortgage Bankers Association (MBA) method[8].

Consider a current loan with a payment due on August 1: If the Servicer does not receive a payment by August 31, the loan would become one month (30 days) delinquent as reflected in the Servicer's September reporting transmission to Freddie Mac. The loan would be reflected as 30 days' delinquent (delinquency status of "1") in the September Monthly Reporting Period in the Dataset.

As a result of combining data from multiple reporting cycles and systems within the monthly performance data, the payment date corresponding to delinquency status and the payment date corresponding to scheduled P&I payments are different, for the same Monthly Reporting Period in the Dataset. Diagram 1 illustrates the process of aligning accounting cycle, default reporting, and termination event information for cycles prior to April 2019. In this example, the default reporting cycle ending 9/30 would be aligned with the servicing cycle ending on 9/15 in the Single-Family Loan-Level Dataset:

Diagram 1: September Monthly Reporting Period

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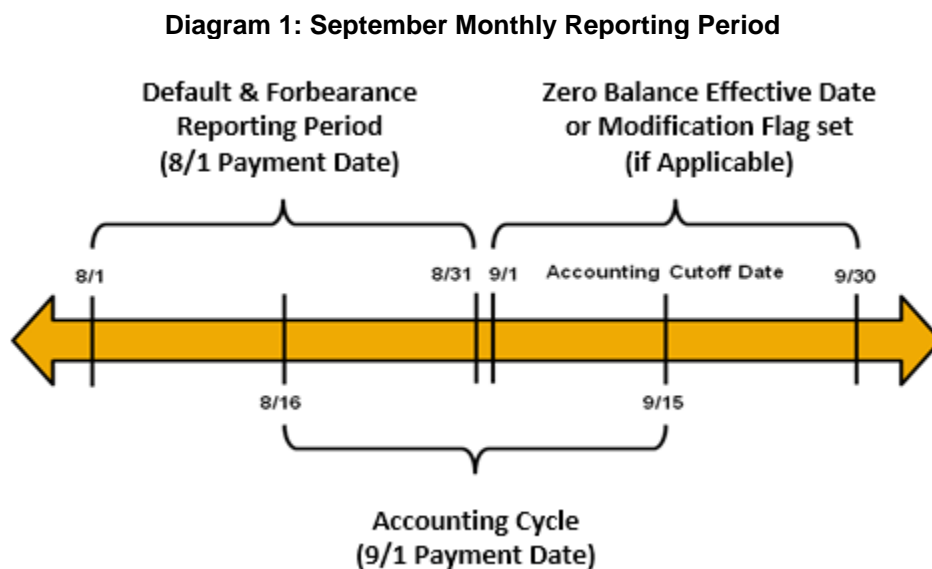
[7] Freddie Mac is not responsible for the DDLPI reported by servicers, makes no representations and warranties regarding such reported DDLPI, and may not have independently verified such reported DDLPI.

[8] In this calculation, a loan increases its delinquency status if a monthly payment is not received by the end of the day immediately preceding the loan's next due date.

For all servicing cycles May 2019 and later, the default reporting period, forbearance reporting period and accounting period are from the first of the month through the end of the month. The reporting and accounting periods will be aligned without any difference. This is shown in diagram 2:

Diagram 2: May Monthly Reporting Period
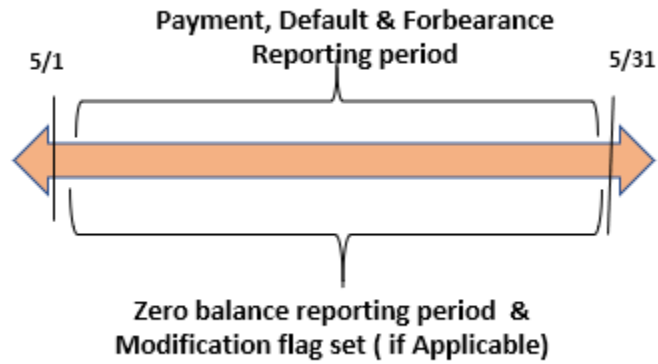
Example 1 follows a loan in the Monthly Performance Data File as it transitions from current to delinquent status' and ends in a termination event. The loan is first reported as delinquent to Freddie Mac in June 2010 ("201006"), which means that the loan first became 30 days delinquent in May 2010 ("201005"). The loan is disposed through a Foreclosure Alternative Sale and is terminated in the Dataset.

Example 1: Normal Delinquent Status Progression

Pwd	Loan Sequence Number	Monthly Reporting Period	Current Actual UPB	Current Loan Delinquency Status	Loan Age	Months Remaining to Legal Maturity	Defect Settlement Date	Modification Flag	Zero Balance Code	Zero Balance Effective Date	Current Interest Rate
	F08Q40000563	201004	79930.72	0	16	344					6.125
	F08Q40000563	201005	79844.71	1	17	343					6.125
	F08Q40000563	201006	79844.71	2	18	341					6.125
	F08Q40000563	201007	79844.71	3	19	340					6.125
	F08Q40000563	201008	79844.71	4	20	339					6.125
	F08Q40000563	201009	79844.71	5	21	338					6.125
	F08Q40000563	201010	79844.71	6	22	337					6.125
	F08Q40000563	201011	79844.71	7	23	336					6.125
	F08Q40000563	201012	0	8	24	335			03	201012	6.125

Example 2 follows a loan in the Dataset that does not complete the "normal" progression of delinquency status. This scenario could be due to delays in reporting delinquency status by the Servicer, bounced checks from the borrower, or mismatches in reporting cycles.

Example 2: Irregular Delinquent Status Progression

Formal Name	Loan Sequence Number	Monthly Reporting Period	Current Actual UPB	Current Loan Delinquency Status	Loan Age	Months Remaining to Legal Maturity	Defect Settlement Date	Modification Flag	Zero Balance Code	Zero Balance Effective Date	Current Interest Rate
	F00Q10000077	200411	121801.43	2	56	304					7.875
	F00Q10000077	200412	121672.66	2	57	303					7.875
	F00Q10000077	200501	121412.59	2	58	302					7.875
	F00Q10000077	200502	121801.43	1	59	301					7.875
	F00Q10000077	200503	121672.66	5	60	300					7.875
	F00Q10000077	200504	120960.14	1	61	299					7.875
	F00Q10000077	200505	120825.85	1	62	298					7.875
	F00Q10000077	200506	120690.68	1	63	297					7.875

Reporting gaps in the data, which could result from a Seller/Servicer failing to report loan information for a given month, or timing mismatches in the initial reporting of the loan to Freddie Mac, are possible. In Example 3, the servicing record does not include information from May 2000 ("200005"). This gap could be due to delays in loan settlement validation and reconciliation, or if the Servicer submitted settlement information late. Also, because the Loan Age is less than six in the example below, you can see that the Current Actual UPB is rounded to the nearest thousand (see Loan-Level Disclosure: Data Masking section for details).

Example 3: Servicing Gaps

Formal Name	Loan Sequence Number	Monthly Reporting Period	Current Actual UPB	Current Loan Delinquency Status	Loan Age	Months Remaining to Legal Maturity	Defect Settlement Date	Modification Flag	Zero Balance Code	Zero Balance Effective Date	Current Interest Rate
Monthly Performance Data	F00Q10000269	200004	136000.00	0	0	360					8.875
	F00Q10000269	200006	136000.00	0	2	358					8.875
	F00Q10000269	200007	135000.00	0	3	357					8.875
	F00Q10000269	200008	135000.00	0	4	356					8.875

Defects

The Single-Family Loan-Level Dataset identifies those loans that have been found to have defects in the monthly performance data files. Specifically, mortgages which were determined to have a defect prior to or after a termination event but before the Performance Cutoff Date, are identified in the Dataset. A loan flagged as a defect may also include loans where Freddie Mac was compensated for losses incurred, or "made whole", as well as loans where a "repurchase equivalent", such as recourse or indemnification, was negotiated with a seller. Loans with a closed underwriting defect or major servicing defect are flagged as defects in the dataset.

For loans that were determined to have defects prior to other termination events, the final monthly performance record of a given loan will contain "96" in the Zero Balance Code field and the date on which the defect was confirmed in the Zero Balance Effective Date field. The Defect Settlement Date field will contain the month and year when the loan was determined to have a defect, which will match the Zero Balance Effective Date when the defect occurred prior to other termination events. In Example 4, the loan was determined to have a defect in April 2009.

Example 4: Defect prior to a termination event

Formal Name	Loan Sequence Number	Monthly Reporting Period	Current Actual UPB	Current Loan Delinquency Status	Loan Age	Months Remaining to Legal Maturity	Defect Settlement Date	Modification Flag	Zero Balance Code	Zero Balance Effective Date	Current Interest Rate
	F06Q10160562	200901	330860.06	0	34	326					6.75
	F06Q10160562	200902	330148.1	0	35	325					6.75
	F06Q10160562	200903	329789.11	0	36	324					6.75
	F06Q10160562	200904	0	0	37	323	200904		96	200904	6.75

For loans that were found to have a defect after a termination event other than a prepayment, but prior to the Performance Cutoff Date, the final monthly performance record of a given loan will contain the Zero Balance Code and the Zero Balance Effective Date, as well as a populated date value in the Defect Settlement Date field. In Example 5, the loan was disposed through a Foreclosure Alternative Sale in March 2008 and was later determined to have a defect in October 2009.

Example 5: Defect after a termination event

Formal Name	Loan Sequence Number	Monthly Reporting Period	Current Actual UPB	Current Loan Delinquency Status	Loan Age	Months Remaining to Legal Maturity	Defect Settlement Date	Modification Flag	Zero Balance Code	Zero Balance Effective Date	Current Interest Rate
Performance Data	F07Q20174169	200801	415686.94	3	7	353					7.250
	F07Q20174169	200802	415686.94	4	8	352					7.250
	F07Q20174169	200803	0	5	9	351	200910		03	200803	7.250

Modifications

The origination data file will not reflect the modified loan terms of a given modified loan. In the monthly performance data file, all or a subset of the following fields may be updated in the monthly reporting period during which the modification was settled:

- Current Actual UPB
- Current Loan Delinquency Status
- Remaining Months to Legal Maturity
- Current Interest Rate
- Current Deferred UPB

The Modification Flag will be set to "Y" in the period during which the modification is settled, and "P" in subsequent periods, except if another modification is settled. Due to the various loan modification programs available to borrowers,a loan could have been modified more than once. In these cases, the modification flag will be set to "Y" in more than one monthly reporting period, and some or all of the fields above could be updated each time a modification becomes settled. Approved modifications, but not yet closed as of the Performance Cutoff Date, are not included in the Dataset.

Typically, the most recent accounting cycle data[9] will be updated to reflect the modified terms during the monthly reporting period the modification becomes legally effective. In Example 6, the loan modification has settled in September 2002, and the Current Interest Rate, Remaining Months to Legal Maturity, Current Delinquency Status and Current Actual UPB are updated in the prior monthly reporting period.

Example 6: Modification Reporting

Formal Name	Loan Sequence Number	Monthly Reporting Period	Current Actual UPB	Current Loan Delinquency Status	Loan Age	Months Remaining to Legal Maturity	Defect Settlement Date	Modification Flag	Zero Balance Code	Zero Balance Effective Date	Current Interest Rate
Performance Data	F01Q10258239	200205	233835.84	2	14	346					6.75
	F01Q10258239	200206	233403.91	3	15	345					6.75
	F01Q10258239	200207	233403.91	4	16	344					6.75
	F01Q10258239	200208	241971.47	0	17	343					6.625
	F01Q10258239	200209	241757.98	0	18	359		Y			6.625
	F01Q10258239	200210	241757.98	0	19	358		P			6.625

Actual Loss

The origination data file does not disclose any actual loss data components. The six (6) actual loss components will be disclosed as part of the final monthly performance record at property disposition:

- i. Net Sale Proceeds
- ii. Expenses
- iii. MI Recoveries
- iv. Non-MI Recoveries
- v. Zero Balance Removal UPB
- vi. Delinquent Accrued Interest

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[9] For more information on accounting cycles, refer to the Monthly Reporting Period section on Page 17.

In addition to providing total expenses, the components of expenses including Legal Costs, Maintenance and Preservation Costs, Taxes and Insurance, Other Miscellaneous Costs are also provided. All of these 4 components add up to the total expenses.

If a loan has trailing expenses or recoveries after the initial disclosure, the final property disposition record will be updated in a subsequent data refresh to reflect the respective expense or recovery amount. Proceeds received from bulk or lump sum repurchase settlements will not be available loan level.

Actual Loss = (Zero Balance Removal UPB + Delinquent Accrued Interest) – Net Sale Proceeds – MI Recoveries – Non-MI Recoveries – Expenses

Modification Costs are currently not included in calculation of The Actual Loss Calculation field, it is disclosed separately.

Example 8: Calculating Actual loss for an REO loan.
Note: Calculations used are for example purposes only. Different assumptions and calculations may be used. Calculations will be transaction specific and prescribed in the transaction's offering documents.

Formal Name	Loan Sequence Number	Monthly Reporting Period	Current Actual UPB	Current Loan Delinquency Status	Zero Balance Code	Zero Balance Effective Date	MI Recoveries	Net Sale Proceeds	Non-MI Recoveries	Expenses	Zero Balance Removal UPB	Delinquent Accrued interest	Actual Loss Calculation
Performance Data	F03Q10000054	201512	96721.02	68									
	F03Q10000054	201601	96721.02	69									
	F03Q10000054	201602	96721.02	RA									
	F03Q10000054	201603	96721.02	RA									
	F03Q10000054	201604	96721.02	RA									
	F03Q10000054	201605	96721.02	RA									
	F03Q10000054	201606	96721.02	RA									
	F03Q10000054	201607	96721.02	RA									
	F03Q10000054	201608	96721.02	RA									
	F03Q10000054	201609	0	RA	09	201609	27843.41	37348.78	0	-15139.83	96721.02	32272.58	78941.24

Actual Loss = (96,721.02 + 32,272.58) – 37,348.78 – 27,843.41 – 0 – (-15,139.83) = 78,941.24

Example 9: Calculating Actual Loss for a Foreclosure Alternative
Note: Calculations used are for example purposes only. Calculation and treatment will be transaction specific and prescribed in the transaction's offering documents.

Formal Name	Loan Sequence Number	Monthly Reporting Period	Current Actual UPB	Current Loan Delinquency Status	Zero Balance Code	Zero Balance Effective Date	MI Recoveries	Net Sale Proceeds	Non-MI Recoveries	Expenses	Zero Balance Removal UPB	Delinquent Accrued interest	Actual Loss Calculation
Performance Data	F03Q10040164	201211	125811.69	20									
	F03Q10040164	201212	125811.69	21									
	F03Q10040164	201301	125811.69	22									
	F03Q10040164	201302	0	23	03	201302	0	99575.03	1733.83	-21753.4	125811.69	13021.51	59277.74

Actual Loss = (125,811.51 + 13,021.51) – 99,575.03 – 0 – 1,733.83 – (-21753.40) = 59,277.74

Interpreting Relief Refinance and HARP Data

Relief Refinance loans are included in the Standard dataset. To identify Relief Refinance loans, use Relief Refinance Indicator = Y. HARP loans are the subset of loans where Relief Refinance Indicator = Y and which have an Original Loan-to-Value above 80%. Data elements on Relief Refinance loans have the same definitions as the elements in the full Single-Family Loan-Level Dataset.

The Pre-Relief Refinance Loan Sequence Number associated with a loan having Relief Refinance Indicator = Y will appear as either a payoff or repurchase elsewhere in the Single-Family Loan-Level Dataset. The Pre-Relief Refinance Loan Sequence Number may appear in either the Standard dataset or the Non-Standard dataset.

End of Performance data for Pre-Relief Refinance loans

Formal Name	Loan Sequence Number	Monthly Reporting Period	Current Actual UPB	Current Loan Delinquency Status	Loan Age	Remaining Months to Maturity	Zero Balance Code	Zero Balance Effective Date	Current Interest Rate
Performance Data	F07Q10161660	200902	135175.05	0	23	337			6.25
	F07Q10161660	200903	0	0	24	336	01	200903	6.25
	F08Q10034151	200903	164231.95	0	13	347			6.125
	F08Q10034151	200904	0	0	14	346	01	200904	6.125

The last performance record for each of these Pre-Relief Refinance loans indicate voluntary payoffs Zero Balance Code (see table above).

Origination data for Relief Refinance loans

Formal Name	Loan Sequence Number	Relief Refinance Indicator	Pre-Relief Refinance Loan Sequence Number
Origination Data	F09Q10487149	Y	F07Q10161660
	F09Q10486500	Y	F08Q10034151

As Relief Refinance loans are originated and delivered to Freddie Mac, sellers indicate to us the link between the Relief Refinance loan and the Pre-Relief Refinance loan.

Performance data for both Pre-Relief Refinance loans and Relief Refinance loans

Formal Name	Loan Sequence Number	Monthly Reporting Period	Current Actual UPB	Current Loan Delinquency Status	Loan Age	Remaining Months to Maturity	Zero Balance Code	Zero Balance Effective Date	Current Interest Rate
Performance Data	F07Q10161660	200902	135175.05	0	23	337			6.25
	F07Q10161660	200903	0	0	24	336	01	200903	6.25
	F09Q10487149	200904	138000	0	0	360			5.25
	F09Q10487149	200905	137000	0	1	359			5.25
	F08Q10034151	200903	164231.95	0	13	347			6.125
	F08Q10034151	200904	0	0	14	346	01	200904	6.125
	F09Q10486500	200904	167000	0	0	360			4.875
	F09Q10486500	200905	167000	0	1	359			4.875

Loan-Level Disclosure: Data Masking

To protect borrower privacy, certain data elements are masked in the Dataset. The methodologies and the impacted fields can be found in the table below:

Masking Methodology	Fields Impacted
All dates will only include month and year	All Date Fields (First Payment Date, Maturity Date, Period, etc.)
Origination loan amount will be rounded to the nearest $1,000	Original UPB
Current unpaid loan balance will be rounded to the nearest $1,000 when loan age is less than or equal to 6 months and amount is greater than or equal to $500	Current Actual UPB
Within a given origination quarter, those Freddie Mac customers who sell or service mortgages representing less than 1% of the total origination UPB will be identified as "Other Sellers" or "Other Servicers."	Seller Name[10], Servicer Name[11]
The last two digits of the zip code for each loan in the Dataset will be replaced with zeroes.	Postal Code

Additional Information

For additional information, please visit our Web site at Freddiemac.com in the Research Additional Dataset area: https://www.freddiemac.com/research/datasets/sf-loanlevel-dataset

For support with technical issues related to downloading the Single-Family Loan-Level Dataset files, please send an email to embs_support@bkfs.com

For support with data questions related to the Single-Family Loan-Level Dataset, please send an email to SF_Loan_Level_Data_Inquiry@freddiemac.com.

This document will be updated as the Single-Family Loan-Level Dataset is modified and released accordingly.

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[10] The Seller Name will reflect the seller of the mortgage at the time of acquisition by Freddie Mac, and will not be updated to reflect mergers, acquisitions, or other changes after the loan was acquired by Freddie Mac.

[11] The Servicer Name will reflect the name of the servicer of the loan on record with Freddie Mac as of the last month of reported activity for the loan in the Dataset, not taking into account any changes to the servicer's name after a termination event.