Single Family Loan-Level Dataset
General User Guide

Freddie Mac
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Introduction

The information provided in this document serves as a reference for understanding the Single Family Loan-Level Dataset (the "Dataset"). The Dataset includes:

- Loan-level origination, monthly loan performance, and actual loss data on a portion of the fully amortizing 30-year fixed-rate[1] Single Family mortgages[2] that Freddie Mac acquired with origination dates from 1999 to the Origination Cutoff Date (see Release Notes for details).

- Loan-level origination, monthly loan performance, and actual loss data on a portion of the fully amortizing 15- and 20-year fixed-rate Single Family mortgages that Freddie Mac acquired with origination dates from January 1, 2005, to the Origination Cutoff Date (see Release Notes for details).

Freddie Mac is making this Dataset available at the direction of its regulator, the Federal Housing Finance Agency (FHFA) as part of a larger 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 2017 Conservatorship Scorecard.[3]

This action builds on earlier efforts to improve data transparency, including Freddie Mac's decision in June 2011 to make its multifamily loan-level data available and its implementation of the Uniform Mortgage Data Program launched in 2010 with Fannie Mae and FHFA.

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

Freddie Mac cannot 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.

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[1] For loans originated prior to 1/1/2005 the population of 30-year fixed-rate mortgages includes loans with original loan terms between 300 months (25-year) and 420 months (35-year). For loans originated on/after 1/1/2005, the dataset includes all fixed loans regardless of term.

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

[3] The 2018 Conservatorship Scorecard can be found at: https://www.fhfa.gov/AboutUs/Reports/ReportDocuments/2018-Scorecard-12212017.pdf

Loan Selection Criteria & Data Overview

Freddie Mac's Single Family Loan-Level Dataset contains loans meeting the following criteria:

- Mortgages 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[4].
- Fully amortizing 15-, 20-, and 30-year fixed-rate mortgages[1].
- Mortgages categorized as having verified or waived documentation (i.e. "full documentation")[5].

The following types of mortgages were excluded from the 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®/Home Possible Neighborhood Solution® Mortgages and other affordable mortgages (including lender branded affordable loan products)
- 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)
- Foreclosure Alternative Group (Short Sale, Third Party Sale, Charge Off or Note Sale)
- Repurchase prior to Property Disposition

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[4] 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.

[5] 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.

- REO Disposition

Actual loss data components of net sale proceeds, expenses, MI recoveries, non-MI recoveries, and due date of last paid installment (DDLPI) will be disclosed at property disposition. Current Deferred UPB, which is also a component of actual loss, will be disclosed for the months it is legally effective.

Mortgages which were repurchased 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 Dataset 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.

Dataset Overview

Single Family Loan-Level Dataset

For each calendar quarter, there is one file containing loan origination data and one file containing monthly performance data for each loan in the origination data file. There are cases when the loan is in the origination file but not in the performance file. This would happen when the loan gets paid off in the month of origination or before first cycle begins. 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[6] of 50,000 loans selected from each full vintage year and a proportionate number of loans from each partial vintage year of the full Single Family Loan-Level 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.

Single Family HARP Loan-Level Dataset

Freddie Mac's HARP loan level disclosures are an extension to the Single Family Loan-Level Dataset. The population includes loans that were in Freddie Mac Single Family Loan Level dataset and went through the Relief Refinance program between 2009 and 2016, with an LTV at the time of re-finance above 80. Only loans that remained as Fixed Products following this refinance were included in this disclosure. HARP files are consolidated into one origination and one performance file and not separated by year and quarter. The files follow the same file format as the Single Family Loan-Level Dataset except where noted.

Dataset	File Name Format	Contents	File Type	Delimiter
Full	historical_data1_QnYYYY.zip	historical_data1_QnYYYY.txt	Origination Data	Pipe ("|")
		historical_data1_time_QnYYYY.txt	Monthly Performance Data	
Sample	sample_YYYY.zip	sample_orig_YYYY.txt	Origination Data	Pipe ("|")
		Sample_svcg_YYYY.txt	Monthly Performance Data	
HARP	harp_historical_data1.zip	harp_historical_data1.txt	Origination Data	
		harp_historical_data1_time.txt	Monthly Performance Data	Pipe ("|")

A comparison of the full and sample datasets across key loan attributes and performance metrics by vintage year is available to assist with data validation at the following website:

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[6] 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.

http://www.freddiemac.com/research/pdf/summary_statistics.pdf

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. Instructions for reading the data using two popular statistical packages are included in this User Guide, and can be found in the Appendix (A and B). The information is structured as follows:

Field	Description
Column Position	Position of the Column in a Microsoft Excel Worksheet.
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				
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.	• 301 - 850 • 9999 = Not Available, if Credit Score is < 301 or > 850.	Numeric	4

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[7] 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.

ORIGINATION DATA FILE

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. Investment Properties, Second Homes and Refinance transactions are not eligible to be considered First-Time Homebuyer transactions. Therefore First Time Homebuyer does not apply and will be disclosed as "Not Applicable", which will be indicated by a blank space.	• 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 based on 2010 census (for Mar 2013 and May 2013 releases) and 2013 census (for Aug 2013 and Dec 2013 releases) data. 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. OMB refers to an MSA containing a single core with a population of 2.5 million or more, which may be comprised of groupings of counties, as a Metropolitan Division. 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. Changes and/or updates in designations of MSAs or Metropolitan Division will not be reflected in the Single Family Historical Dataset.	• Metropolitan Division or MSA Code. • Space (5) = 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
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 three zeros.	• 1% - 55% • 000 = 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	Alpha	1

ORIGINATION DATA FILE

		• I = Investment Property • S = Second Home • 9 = Not Available		
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 LTV is < 80 or > 200 or Not Available, set the CLTV to 'Not Available.' 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.	• 0% - 200% • 999 = Not Available	Full Dataset: Numeric Literal Decimal; Sample Dataset: Numeric	Full Dataset: 7; Sample Dataset: 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
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.	• 6% - 105% • 999 = Not Available HARP ranges: • 81% - 999% • 999 = Not Available	Numeric	3

ORIGINATION DATA FILE

	Ratios below 6% or greater than 105% will be disclosed as "Not Available," indicated by 999. For loans in the HARP dataset, LTV ratios less than or equal to 80% and greater than 999% will be disclosed as Not Available.			
13	**ORIGINAL INTEREST RATE** - The original note rate as indicated on the mortgage note.		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. 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.	• R = Retail • B = Broker • C = Correspondent • T = TPO Not Specified • 9 = Not Available	Alpha	1
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

ORIGINATION DATA FILE

16	**PRODUCT TYPE** - Denotes that the product is a fixed-rate mortgage.	• FRM – Fixed 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 = 1-4 Fee Simple • 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 • Space(5)= Unknown	Numeric	5
20	**LOAN SEQUENCE NUMBER** - Unique identifier assigned to each loan.	F1YYQnXXXXXX • F1 = product (Fixed Rate Mortgage); • YYQn = origination year and quarter; and, • XXXXXX = 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 = Cash-out Refinance • N = No Cash-out Refinance • 9 =Not Available	Alpha	1
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

ORIGINATION DATA FILE

	Loans with original term of 420 or more, or 300 or less, are excluded from the Dataset if originated prior to 1/1/2005. If loan was originated on/after 1/1/2005, this exclusion does not apply.			
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.	• 01 = 1 borrower • 02 = > 1 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	20
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	20
26	**SUPER CONFORMING FLAG** – For mortgages that exceed conforming loan limits with origination dates on or after 10/1/2008 and settlements on or after 1/1/2009	• Y = Yes • Space (1) = Not Super Conforming	Alpha	1
27	**Pre-HARP LOAN SEQUENCE NUMBER –** The Loan Sequence Number link that associates this HARP loan to the Pre-HARP Loan Sequence Number in the Single Family loan level dataset already being published on a quarterly basis.	F1YYQnXXXXXX • F1 = product (Fixed Rate Mortgage); • YYQn = origination year and quarter; and, • XXXXXX = randomly assigned digits	Alpha-numeric	12

Monthly Performance Data File

MONTHLY PERFORMANCE DATA FILE

1	**LOAN SEQUENCE NUMBER** - Unique identifier assigned to each loan.	F1YYQnXXXXXX • F1 = product (Fixed Rate Mortgage); • YYQn = origination year and quarter; and, • XXXXXX = 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

MONTHLY PERFORMANCE DATA FILE

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, as indicated by "Y" in the Modification Flag field, the current actual unpaid principal balance may or may not include partial principal forbearance. If applicable, for loans with partial principal forbearance, the current actual unpaid principal balance equals the sum of interest bearing UPB (the amortizing principal balance of the mortgage) and the deferred UPB (the principal forbearance balance). Current UPB will be rounded to the nearest $1,000 for the first 6 months after origination date. This was previously reported as zero for the first 6 months after the origination date.	**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).	• XX = Unknown • 0 = Current, or less than 30 days past due • 1 = 30-59 days delinquent • 2 = 60 – 89 days delinquent • 3 = 90 – 119 days delinquent • And so on… • R = REO Acquisition • Space (3) = Unavailable	Alpha-numeric	3
5	**LOAN AGE** - The number of months since the note origination month of the mortgage. To ensure the age measurement commences with the first full month after the note origination month, subtract 1.	**Calculation:** ((Monthly Reporting Period) – Loan Origination Date (MM/YY)) – 1 month	Numeric	3
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:** (Maturity Date (MM/YY) – Monthly Reporting Period (MM/YY)	Numeric	3
7	**REPURCHASE FLAG** - Indicates loans that have been repurchased or made whole (not inclusive of pool-level repurchase settlements). This field is only populated only at loan termination month.	• N = Not Repurchased • Y = Repurchased • Space (1) = Not Applicable	Alpha	1
8	**MODIFICATION FLAG** – For mortgages with loan modifications, indicates that the loan has been modified.	• Y = Yes • Space (1) = Not Modified	Alpha	1

	MONTHLY PERFORMANCE DATA FILE			
9	**ZERO BALANCE CODE** - A code indicating the reason the loan's balance was reduced to zero.	• 01 = Prepaid or Matured (Voluntary Payoff) • 03 = Foreclosure Alternative Group (Short Sale, Third Party Sale or Charge Off) • 06 = Repurchase prior to Property Disposition • 09 = REO Disposition • 15 = Note sale/Reperforming sale	Numeric	2
10	**ZERO BALANCE EFFECTIVE DATE** - The date on which the event triggering the Zero Balance Code took place.	• 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 DEFERRED UPB**: The current non-interest bearing UPB of the modified mortgage.	$ Amount. Non-Interest Bearing UPB.	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. MI Recoveries.	Numeric Literal Decimal	12
15	**NET SALES 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 "C" in Net Sales Proceeds stands for Covered, which means that as part of the property disposition process, Freddie Mac was "Covered" for its total indebtedness (defined as UPB at disposition plus delinquent accrued interest) and net sale proceeds covered default expenses incurred by Servicer during the disposal of the loan. A value of "U" indicates that the amount is unknown.	$ Amount. Gross Sale Proceeds – Allowable Selling Expenses. C = Covered U = Unknown	Alpha-numeric Literal Decimal	14
16	**NON MI RECOVERIES**: Non-MI Recoveries are proceeds received by Freddie Mac based on repurchase/make whole proceeds, non-sale income such as refunds (tax or insurance), hazard insurance proceeds, rental receipts, positive escrow and/or other miscellaneous credits.	$ Amount. Non MI Recoveries.	Numeric Literal Decimal	12
17	**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	$ Amount. Allowable Expenses.	Numeric Literal Decimal	12

MONTHLY PERFORMANCE DATA FILE

18	**LEGAL COSTS -** The amount of legal costs associated with the sale of a property (but not included in Net Sale Proceeds). Prior to population of a Zero Balance Code equal to 03 or 09, this field will be populated as "Not Applicable," Following population of a Zero Balance Code equal to 03 or 09, this field will be updated (as applicable) to reflect the cumulative total. Space(12) – Not applicable	$ 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). Prior to population of a Zero Balance Code equal to 03 or 09, this field will be populated as "Not Applicable," Following population of a Zero Balance Code equal to 03 or 09, this field will be updated (as applicable) to reflect the cumulative total. Space(12) – Not applicable	$ 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). Prior to population of a Zero Balance Code equal to 03 or 09, this field will be populated as "Not Applicable,". Following population of a Zero Balance Code equal to 03 or 09, this field will be updated (as applicable) to reflect the cumulative total. Space(12) – Not applicable	$ Amount	Numeric Literal Decimal	12
21	**MISCELLANEOUS EXPENSES** - Miscellaneous expenses associated with the sale of a property (but not included in Net Sale Proceeds). Prior to population of a Zero Balance Code equal to 03 or 09, this field will be populated as "Not Applicable,". Following population of a Zero Balance Code equal to 03 or 09, this field will be updated (as applicable) to reflect the cumulative total. Space(12) – Not applicable	$ Amount	Numeric Literal Decimal	12
22	**ACTUAL LOSS CALCULATION** Actual Loss was calculated using the below approach: Actual Loss = (Default UPB – Net Sale_Proceeds) + Delinquent Accrued Interest - Expenses – MI Recoveries – Non MI Recoveries. Delinquent Accrued Interest = (Default_Upb – Non Interest bearing UPB)* (Current Interest rate – 0.35) * (Months between Last Principal & Interest paid to date and zero balance date) * 30/360/100. 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 . b. The Actual Loss Calculation will be set to zero for loans with Repurchase Flag ='Y' c. The Actual Loss Calculation will be set to zero for loans with Net Sale Proceeds='C (i,e, Covered)'. d. The Actual Loss Calculation will be set to zero for loans with Net Sales Proceeds = 'U" (Net Sales Proceeds are missing or expenses are not available.	$ Amount	Numeric Literal Decimal	12

MONTHLY PERFORMANCE DATA FILE

	e. The Actual Loss Calculation will be set to missing for loans disposed within three months prior to the performance cutoff date. f. Modification Costs are currently not included in the calculation of The Actual Loss Calculation field.			
23	**MODIFICATION COST –** The cumulative modification cost amount calculated when Freddie Mac determines such mortgage loan has experienced a rate modification event. Modification Cost is applicable for loans with rate changes only. 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: (Original Interest Rate/1200 * Current Actual UPB) – (Current Interest Rate/1200 * (sum(Current Actual UPB, -Current Deferred UPB)) and aggregate each month since modification through the Performance Cutoff Date into a cumulative amount	$ Amount	Numeric Literal Decimal	12
24	**STEP MODIFICATION FLAG** – A Y/N flag will be disclosed for every modified loan, to denote if the terms of modification agreement call for note rate to increase over time.	• Y = Yes • N = No • Space (1) = Not Step Mod	Alpha	1
25	**DEFERRED PAYMENT MODIFICATION** – A Y/N flag will be disclosed to indicate Deferred Payment Modification for the loan.	• Y = Yes • N = No	Alpha	1

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 as 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 "monthly performance data" file for all of the respective loans originated during the quarter.

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 records 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 repurchased from Freddie Mac after a termination event are the exception to this practice, as discussed in the section below entitled "Repurchases". 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. If more than one termination event occurs in the same reporting period for a given loan (e.g., a loan is repurchased and REO disposed), 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 (5 being the lowest and 1 being the highest).

Reason for Loan Termination	Zero Balance Code	Priority
Prepaid or Matured (Voluntary Payoff)	01	5
Foreclosure Alternative Group (Short Sale, Third Party Sale, Charge Off or Note Sale)	03	4
Repurchase prior to Property Disposition	06	2
REO Disposition	09	3
NPL/RPL Loan Sale	15	1

Valid Values

Certain data elements for some loans in the Single Family Loan-Level Dataset will not be disclosed if the value is above or below reasonable thresholds, as determined by Freddie Mac and detailed in the table below:

Data Element	File Type	Valid Values	If Not Valid
Credit Score (FICO)	Origination	301 - 850	Space (3)
Mortgage Insurance Percentage (MI %)	Origination	1% - 55% or 0 (000)	Space (3)
Original Debt-to-Income Ratio (DTI)	Origination	0%<DTI<= 65% For HARP: Null	Space (3) or Null
Original Loan-to-Value Ratio (LTV)	Origination	6% - 105%	Space (3)

Data Element	File Type	Valid Values	If Not Valid
		For HARP: 81% - 999%	
Original Combined Loan-to-Value Ratio (CLTV)	Origination	0% - 200%	Space (3)

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.

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. 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[8], and is calculated under the Mortgage Bankers Association (MBA) method.[9]
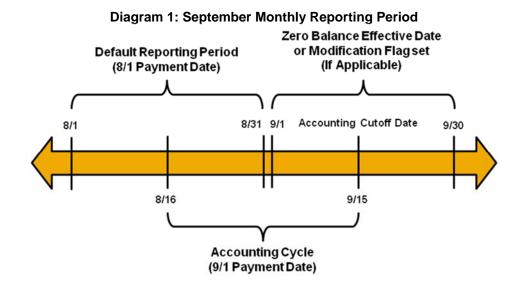
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[8] Freddie Mac is not responsible for the DDLPI reported by servicers, makes no representations and warranties regarding such reported DDLPI, and may not have independently verified such reported DDLPI.

[9] 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.

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 accounting cycle, default reporting, and termination event information that would be included in the Monthly Reporting Period of September in the Single Family Loan-Level Dataset:

Diagram 1: September 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

Formal Name	Loan Sequence Number	Monthly Reporting Period	Current Actual UPB	Current Loan Delinquency Status	Loan Age	Months Remaining to Legal Maturity	Repurchase Flag	Modification Flag	Zero Balance Code	Zero Balance Effective Date	Current Interest Rate
Monthly Performance Data	F108Q4000374	201004	79930.72	0	16	343					6.125
	F108Q4000374	201005	79844.71	0	17	342					6.125
	F108Q4000374	201006	79844.71	1	18	341					6.125
	F108Q4000374	201007	79844.71	2	19	340					6.125
	F108Q4000374	201008	79844.71	3	20	339					6.125
	F108Q4000374	201009	79844.71	4	21	338					6.125

Formal Name	Loan Sequence Number	Monthly Reporting Period	Current Actual UPB	Current Loan Delinquency Status	Loan Age	Months Remaining to Legal Maturity	Repurchase Flag	Modification Flag	Zero Balance Code	Zero Balance Effective Date	Current Interest Rate
	F108Q4000374	201010	79844.71	5	22	337					6.125
	F108Q4000374	201011	79844.71	6	23	336					6.125
	F108Q4000374	201012	0	7	24	335	N		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	Repurchase Flag	Modification Flag	Zero Balance Code	Zero Balance Effective Date	Current Interest Rate
Monthly Performance Data	F100Q1000049	200411	121801.43	2	56	304					7.875
	F100Q1000049	200412	121672.66	2	57	303					7.875
	F100Q1000049	200501	121412.59	2	58	302					7.875
	F100Q1000049	200502	121801.43	1	59	301					7.875
	F100Q1000049	200503	121672.66	5	60	300					7.875
	F100Q1000049	200504	120960.14	1	61	299					7.875
	F100Q1000049	200505	120825.85	1	62	298					7.875
	F100Q1000049	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 this loan was aged less than six months from origination, the Current Actual Unpaid Principal Balance (UPB) field is empty (see Data Masking section below).

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	Repurchase Flag	Modification Flag	Zero Balance Code	Zero Balance Effective Date	Current Interest Rate
Monthly Performance	F100Q1000183	200004		0	0	360					8.875
	F100Q1000183	200006		0	2	358					8.875
	F100Q1000183	200007		0	3	357					8.875

Formal Name	Loan Sequence Number	Monthly Reporting Period	Current Actual UPB	Current Loan Delinquency Status	Loan Age	Months Remaining to Legal Maturity	Repurchase Flag	Modification Flag	Zero Balance Code	Zero Balance Effective Date	Current Interest Rate
	F100Q1000183	200008		0	4	356					8.875

Repurchases

The Single Family Loan-Level Dataset identifies those loans that have been repurchased from Freddie Mac in the monthly performance data files. Specifically, mortgages which were repurchased prior to or after a termination event but before the Performance Cutoff Date, are identified in the Dataset. A loan flagged as "repurchased" 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 repurchases in the dataset.

For loans that were repurchased prior to other termination events, the final monthly performance record of a given loan will contain "06" in the Zero Balance Code field and the date on which the repurchase occurred in the Zero Balance Effective Date field. In some cases, the final monthly performance record of a given loan will contain "01" in the Zero Balance Code field and the date on which the repurchase occurred in the Zero Balance Effective Date field. The Repurchase Flag field will contain "Y". In Example 4, the loan was repurchased from Freddie Mac in April 2009.

Example 4: Repurchase 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	Repurchase Flag	Modification Flag	Zero Balance Code	Zero Balance Effective Date	Current Interest Rate
Monthly Performance Data	F106Q1111821	200809	332000.8	0	30	330					6.75
	F106Q1111821	200810	331652.23	0	31	329					6.75
	F106Q1111821	200811	331213.06	0	32	328					6.75
	F106Q1111821	200812	330860.06	0	33	327					6.75
	F106Q1111821	200901	330860.06	0	34	326					6.75
	F106Q1111821	200902	330148.1	0	35	325					6.75
	F106Q1111821	200903	329789.11	0	36	324					6.75
	F106Q1111821	200904	0	0	37	323			6	200904	6.75

For loans that were repurchased 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 (allowable values are 03 and 09) and the Zero Balance Effective Date, as well as "Y" in the Repurchase Flag field. In Example 5, the loan was disposed through a Foreclosure Alternative Sale in March 2005 and was later repurchased from Freddie Mac.

Example 5: Repurchase 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	Repurchase Flag	Modification Flag	Zero Balance Code	Zero Balance Effective Date	Current Interest Rate
Monthly Performance Data	F103Q1325362	200408	171580.65	0	16	343					5.625
	F103Q1325362	200409	171379.83	1	17	342					5.625
	F103Q1325362	200410	171379.83	1	18	341					5.625
	F103Q1325362	200411	171379.83	2	19	340					5.625
	F103Q1325362	200412	171379.83	3	20	339					5.625
	F103Q1325362	200501	171379.83	4	21	338					5.625
	F103Q1325362	200502	171379.83	5	22	337					5.625
	F103Q1325362	200503	0	6	23	336	Y		03	200503	5.625

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 became legally effective:

- 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 legally effective. Due to the various loan modification programs available to borrowers (Standard[10], HAMP[11], etc.), 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 legally effective. 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[12] will be updated to reflect the modified terms during the monthly reporting period the modification becomes legally effective. In Example 6, the loan modification is effective in August 2002, and the Current Interest Rate, Remaining Months to Legal Maturity and Current Actual UPB are updated in the same monthly reporting period. The Current Loan Delinquency Status is updated in the subsequent period.

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[10] For more information about Freddie Mac's Standard Modifications, please visit the following website: http://www.freddiemac.com/learn/pdfs/service/std_strm_mod.pdf

[11] For more information about the Home Affordable Modification Program, please visit the following website: http://www.freddiemac.com/singlefamily/service/mha_modifi cation.html

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

Example 6: Normal Modification Reporting

Formal Name	Loan Sequence Number	Monthly Reporting Period	Current Actual UPB	Current Loan Delinquency Status	Loan Age	Months Remaining to Legal Maturity	Repurchase Flag	Modification Flag	Zero Balance Code	Zero Balance Effective Date	Current Interest Rate
Monthly Performance Data	F101Q1173671	200205	233835.84	3	14	345					6.75
	F101Q1173671	200206	233403.91	2	15	344					6.75
	F101Q1173671	200207	233403.91	3	16	343					6.75
	F101Q1173671	200208	241971.47	4	17	360		Y			6.625
	F101Q1173671	200209	241757.98	0	18	359					6.625

However, delays in the reporting of workout information from the Servicer or caused by quality control processes at Freddie Mac may result in updates to accounting cycle data occurring after the modification effective date. In Example 7, below, the loan modification is effective in April 2003, but the Current Interest Rate, Current Actual UPB, and Current Loan Delinquency Status are updated in the subsequent Monthly Reporting Period.

Example 7: Delayed Modification Reporting

Formal Name	Loan Sequence Number	Monthly Reporting Period	Current Actual UPB	Current Loan Delinquency Status	Loan Age	Months Remaining to Legal Maturity	Repurchase Flag	Modification Flag	Zero Balance Code	Zero Balance Effective Date	Current Interest Rate
Monthly Performance Data	F101Q1210253	200301	78747.56	1	21	339					7.25
	F101Q1210253	200302	78747.56	2	22	338					7.25
	F101Q1210253	200303	78677.59	3	23	337					7.25
	F101Q1210253	200304	78677.59	3	24	360		Y			7.25
	F101Q1210253	200305	83785.88	0	25	359					7

Actual Loss

The origination data file does not disclose any actual loss data components. With the exception of Current Deferred UPB, which will be disclosed for the months it is legally effective, the remaining 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. Current Deferred UPB
    vi. Due Date of Last Paid Installment (DDLPI)

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.

While Net Sale Proceeds, Expenses, MI Recoveries and Non MI Recoveries are $ amounts that can be directly used in calculating actual loss, Current Deferred UPB and Due Date of Last Paid Installment (DDLPI) are to be used for calculating actual loss based on lost interest. Note that the period when the actual loss occurred shall not be disclosed. 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 = Default UPB – Net Sales Proceeds - Expenses – MI Recoveries – Non MI Recoveries + Delinquent Interest

For purposes of this calculation:

- Default UPB is the last known non zero Current Actual UPB.
- Delinquent Interest = (Zero Balance Effective Date – Due Date of Last Paid Installment in months) X (Default UPB – Non Interest bearing UPB) X 30/360 X (Current Interest Rate – Servicing Fee 0.35)/100
- We use 35 bps as a proxy for servicing fee for this field in the below examples.
- Modification Costs are currently not included in calculation of The Actual Loss Calculation field.

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	Current Interest Rate	Due Date of Last Paid Installment (DDLPI)	MI Recoveries	Net Sales Proceeds	NON MI Recoveries	Expenses
Monthly Performance Data	F106Q1263687	201208	233688.50	15			6.375					
	F106Q1263687	201209	233688.50	R			6.375					
	F106Q1263687	201304	0	R	09	201304	0	201104	0	182400	1197	-70100

Actual Loss = 233,688.49 – 182,400 – (-70100) – 0 – 1197 + 28,626.84*= 148,818.33
* Delinquent Interest = (201304 – 201104[24months]) X 233,688.49 X 30/360 X (6.375 – 0.35)/100 = 28,159.46

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	Current Interest Rate	Due Date of Last Paid Installment (DDLPI)	MI Recoveries	Net Sales Proceeds	NON MI Recoveries	Expenses
Monthly Performance Data	F103Q1012288	201211	125811.69	19			5.75					
	F103Q1012288	201212	125811.69	20			5.75					
	F103Q1012288	201301	125811.69	21			5.75					
	F103Q1012288	201302	0	22	03	201302	5.75	201103	0	99600	1734	-21753

Actual Loss = 125,811.69 – 99,600 - (-21,753) – 0 – 1,734 +13,021.51 = 59,252.2
* Delinquent Interest = (201302 – 201103[23months]) X 125,811.69 X 30/360 X (5.75 – 0.35)/100 = 13,021.51

Interpreting HARP Data

HARP dataset has 2 files:

- An "origination data" file containing loan-level origination information for loans that refinanced via HARP out of the full Single Family Loan Level Dataset
- A "monthly performance data" file for all the HARP loans being included in the above stated origination data file.

HARP data elements have the same definitions as the elements in the full Single Family Loan Level Dataset The interpretation of these data elements should be consistent, except where noted.

The loans in HARP disclosure appear as payoff's/repurchases in the full Single Family Loan Level Dataset. In order to combine both the datasets, use the Pre-HARP Loan Sequence Number in the HARP origination file, and map it back to the corresponding loan history in the existing loan level disclosure.

HARP Origination records:

Column Position #	1	2	3	8	20	25	26	27
Formal Name	CREDIT SCORE	FIRST PAYMENT DATE	FIRST TIME HOMEBUYER FLAG	OCCUPANCY STATUS	Loan Sequence Number	SERVICER NAME	SUPERCONFORMING FLAG	PRE-HARP Loan Sequence Number
Origination data	698	200906	N	O	F109Q1595460	Other servicers		F107Q3047434
	706	200906	N	O	F109Q1595461	Other servicers		F108Q2002318

The above examples represent loans that went through HARP refinance in Q1 2009, the Pre-Harp Loan Sequence Numbers for these loans can be observed at the end of each row*.*

Terminal Performance record for Pre-HARP loans in existing disclosure:

Formal Name	Loan Sequence Number	Monthly Reporting Period	Current Actual UPB	Current Loan Delinquency Status	Zero Balance Code	Zero Balance Effective Date	Current Interest Rate	Due Date of Last Paid Installment (DDLPI)	MI Recoveries	Net Sales Proceeds	Expenses
Monthly Performance Data	F107Q3047434	200903	0	0	01	200903	6.5				
	F108Q2002318	200903	0	0	01	200903	5.875				

The last performance record for each of these Pre-Harp loans indicate voluntary payoffs Zero Balance Code (see table above). Subsequent performance for these loans after HARP refinance can be observed in the table below. For representation, only the first and last performance records have been included for each loan.

Performance for HARP loans

Formal Name	Loan Sequence Number	Monthly Reporting Period	Current Actual UPB	Current Loan Delinquency Status	Zero Balance Code	Zero Balance Effective Date	Current Interest Rate	Due Date of Last Paid Installment (DDLPI)	MI Recoveries	Net Sales Proceeds	Expenses
Monthly Performance Data	F109Q1595460	200904	156000	0			4.875				
	F109Q1595460	201303	0	0	01	201303	4.875				
	F109Q1595461	200904	193000	0			5				
	F109Q1595461	201608	0	0	01	201608	5				

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	First Payment Date, Maturity Date, Zero Balance Effective Date
Origination loan amount will be rounded to the nearest $1,000	Original UPB
Net Sales Proceeds amount will be rounded to the nearest $100	Net Sales Proceeds
Current unpaid loan balance will be rounded to the nearest $1,000 when loan age is less than or equal to 6 months	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[13], Servicer Name[14]
The last two digits of the zip code for each loan in the Dataset will be replaced with zeroes.	Postal Code

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[13] 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.

[14] 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.

Additional Information

For additional information, please visit our Web site at Freddiemac.com in the Research Additional Dataset area: http://www.freddiemac.com/research/datasets/sf_loanlevel_dataset.html

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

Appendix

A. *Dataset for SAS Users*

Follow the steps below to import a given Single Family Loan Level Dataset file into the SAS application:

Step	Instructions
1	Copy all files to a specific directory
2	Assign a SAS macro variable out_dir pointing to the file location
3	Run the following code on each file, adjusting the file name (QnYYYY) accordingly: ``` data origfile; infile "&indir./historical_data1_&qtr_prd..txt" dlm= '|' MISSOVER DSD lrecl=32767 firstobs=1 ; input fico : 8. dt_first_pi : 8. flag_fthb : $1. dt_matr : 8. cd_msa : 8. mi_pct : 8. cnt_units : 8. occpy_sts : $1. cltv : 8. dti : 8. orig_upb : 8. ltv : 8. int_rt : 8. channel : $1. ppmt_pnlty : $1. prod_type : $5. st : $2. prop_type : $2. zipcode : $5. id_loan : $16. loan_purpose : $5. orig_loan_term : 8. cnt_borr : $2. seller_name : $20. servicer_name : $20. flag_sc : $1. ; run; data svcgfile; infile "&indir./historical_data1_time_&qtr_prd..txt" dlm= '|' MISSOVER DSD lrecl=32767 firstobs=1 ; input ID_loan : $12. Period : 8. Act_endg_upb : 8. delq_sts : $8. loan_age : 8. mths_remng : 8. repch_flag : $1. flag_mod : $1. CD_Zero_BAL : $3. Dt_zero_BAL : 8. New_Int_rt : 8. Amt_Non_Int_Brng_Upb : 12. Dt_Lst_Pi : 6. MI_Recoveries : 12. Net_Sale_Proceeds : $14. Non_MI_Recoveries : 12. Expenses : 12. legal_costs : 12. maint_preserv_costs : 12. Taxes_ins_costs : 12. ```

Step	Instructions
	misc_costs : 12. actual_loss : 12. Modcost : 12. Stepmod_ind : $1. dpm_ind : $1. ; run;

B. Dataset for STATA Users

We suggest the following steps to import a given Single Family Loan Level Dataset file into STATA Ver. 12 application:

Step	Instructions
1	Copy all files to a specific directory
2	Read each file into STATA using the "insheet" command, adjusting for the file name (QnYYYY) accordingly: insheet using <data_filename>, delimiter("|")
3	Save Data into STATA format (*.dta): Save <data_filename>
4	If you have the need to pull the Origination and Performance data files into a single view: use <data_filename> joinby id_loan using <data_filename>

Note: The above-mentioned steps have been tested and suggested only for STATA Ver. 12. For a different version, please refer to STATA Release Notes at http://www.stata.com/features/.

C. Dataset for R code users

Step	Instructions
1	Copy all files to a specific directory
2	setwd("directory path") origclass <- c('integer','integer','character', 'integer', 'character', 'real', 'integer', 'character','real','integer','integer','integer','real','character','character','character','character', 'character','character','character','character', 'integer', 'integer','character','character' ,'character') origfile_Qnyyyy <- read.table("historical_data1_Qnyyyy.txt", sep="|", header=FALSE, colClasses=origclass) names(origfile_Qnyyyy)=c('fico','dt_first_pi','flag_fthb','dt_matr','cd_msa',"mi_pct",'cnt_units','occpy_sts','cltv' ,'dti','orig_upb','ltv','int_rt','channel','ppmt_pnlty','prod_type','st', 'prop_type','zipcode','id_loan','loan_purpose', 'orig_loan_term','cnt_borr','seller_name','servicer_name', 'flag_sc')

Step	Instructions
	svcgclass <- c('character','integer','real','character', 'integer','integer','character','character', 'character','integer','real','real','integer', 'integer', 'character','integer','integer', 'integer','integer','integer','integer','real','real', 'character') svcgfile_Qnyyyy <- read.table("historical_data1_time_Qnyyyy.txt", sep="|", header=FALSE, colClasses=svcgclass) names(svcgfile_Qnyyyy)=c('id_loan','svcg_cycle','current_upb','delq_sts','loan_age','mths_remng', 'repch_flag','flag_mod', 'cd_zero_bal', 'dt_zero_bal','current_int_rt','non_int_brng_upb','dt_lst_pi','mi_recoveries', 'net_sale_proceeds','non_mi_recoveries','expenses', 'legal_costs', 'maint_pres_costs','taxes_ins_costs','misc_costs','actual_loss', 'modcost', 'stepmod_ind', 'dpm_ind'))

D. HARP Dataset for SAS Users

Follow the steps below to import a given HARP Dataset file into the SAS application:

Step	Instructions
1	Copy all files to a specific directory
2	Assign a SAS macro variable out_dir pointing to the file location
3	Run the following code on each file, adjusting the file name (QnYYYY) accordingly: ``` data origfile; infile "&indir./ harp_historical_data.txt" dlm= '|' MISSOVER DSD lrecl=32767 firstobs=1 ; input fico : 8. dt_first_pi : 8. flag_fthb : $1. dt_matr : 8. cd_msa : 8. mi_pct : 8. cnt_units : 8. occpy_sts : $1. cltv : 8. dti : 8. orig_upb : 8. ltv : 8. int_rt : 8. channel : $1. ppmt_pnlty : $1. prod_type : $5. st : $2. prop_type : $2. zipcode : $5. id_loan : $16. loan_purpose : $5. orig_loan_term : 8. cnt_borr : $2. seller_name : $20. servicer_name : $20. ```

Step	Instructions
	flag_sc : $1. preharp_id_loan : $12. run; data svcgfile; infile "&indir./ harp_historical_data_time..txt" dlm= '|' MISSOVER DSD lrecl=32767 firstobs=1 ; input ID_loan : $12. Period : 8. Act_endg_upb : 8. delq_sts : $8. loan_age : 8. mths_remng : 8. repch_flag : $1. flag_mod : $1. CD_Zero_BAL : $3. Dt_zero_BAL : 8. New_Int_rt : 8. Amt_Non_Int_Brng_Upb : 12. Dt_Lst_Pi : 6. MI_Recoveries : 12. Net_Sale_Proceeds : $14. Non_MI_Recoveries : 12. Expenses : 12. legal_costs : 12. maint_preserv_costs : 12. Taxes_ins_costs : 12. misc_costs : 12. actual_loss : 12. Modcost : 12. Stepmod_ind : $1. dpm_ind : $1. ; run;

E. HARP Dataset for R Users

Step	Instructions
1	Copy all files to a specific directory
o	setwd("directory path") origclass <- c('integer','integer','character', 'integer', 'character', 'real', 'integer', 'character','real','integer','integer','integer','real','character','character','character','character', 'character','character','character','character', 'integer', 'integer','character','character' ,'character') harp_origfile <- read.table("harp_historical_data.txt", sep="|", header=FALSE, colClasses=origclass) names(harp_origfile)=c('fico','dt_first_pi','flag_fthb','dt_matr','cd_msa','mi_pct','cnt_units','occpy_sts','cltv','dti','orig_upb','ltv','int_rt','channel','ppmt_pnlty','prod_type','st', 'prop_type','zipcode','id_loan','loan_purpose', 'orig_loan_term','cnt_borr','seller_name','servicer_name', 'flag_sc', 'preharp_id_loan') svcgclass <- c('character','integer','real','character', 'integer','integer','character','character', 'character','integer','real','real','integer', 'integer', 'character','integer','integer', 'integer','integer','integer','integer','real','real','character','character') I

Step	Instructions
	svcgfile_Qnyyyy <- read.table("harp_historical_data_time.txt", sep="|", header=FALSE, colClasses=svcgclass) names(harp_svcgfile)=c('id_loan','svcg_cycle','current_upb','delq_sts','loan_age','mths_remng', 'repch_flag','flag_mod', 'cd_zero_bal', 'dt_zero_bal','current_int_rt','non_int_brng_upb','dt_lst_pi','mi_recoveries', 'net_sale_proceeds','non_mi_recoveries','expenses', 'legal_costs', 'maint_pres_costs','taxes_ins_costs','misc_costs','actual_loss', 'modcost', 'stepmod_ind', dpm_ind)