Credit Score Models and Reports Initiative

Historical Credit Score Data User Guide
for VantageScore® 4.0

July 2024

Historical Credit Score Data User Guide

To support the GSEs' credit score models and reports initiative, Freddie Mac is publishing historical data to help market participants evaluate the impact, and prepare for the implementation, of VantageScore® 4.0. This guide is designed to be a reference for the historical data and will be updated as appropriate per the initiative timeline and milestones.

Data Disclaimers:

- The credit scores in the historical credit score files are generated by Equifax, Experian, and TransUnion based on the archive credit data from that credit bureau. We do not make any representations or warranties concerning the quality, accuracy, or completeness of the historical data generated by these third parties or the adequacy or suitability of the historical credit score files for any use or purpose.

- The type, content, format, structure, and quality of this data depends on how this data was collected and stored at the specific time the archive was created. This may be a different time than the time at which the credit report used at origination was generated for the loans included in the files. This difference in timing may lead to differences in credit scores between the archive credit data and the origination credit data.

- Archive credit data may not reflect more recent updates in the content and structure of credit reports. For instance, changes over time to the reporting of medical collections, tax liens, judgments, student loan forbearance, and rental payments (among other things) will not be reflected in scores generated based on credit data archived before those changes went into effect.

- The historical credit score files must not be used to, directly or indirectly, identify any specific individual. Users must comply with the Terms and Conditions, which contain important information on the permitted uses and restrictions for the data contained in the historical credit score files.

General Information:

- For the most up-to-date information regarding the credit score models and reports initiative, please refer to our website https://sf.freddiemac.com/general/credit-score-models for the FHFA announcement, the Partner Playbook, the FHFA Fact Sheet, and FAQs.

- The population for each data file includes loans in the Single-Family (SF LLD), Credit Risk Transfer (CRT), and Mortgage-Backed Securities (MBS) disclosure datasets but is limited to loans originated from 2013 to 2022.

- Loans with no credit score or insufficient underlying credit repository information have been excluded from the dataset.

- This historical VantageScore® 4.0 data only contains scores for up to two borrowers.

- This dataset includes VantageScores 4.0 calculated using:
  - the current tri-merge calculation (middle/lower/lowest),
  - the new tri-merge calculation (average/average), and
  - the possible combinations of the new bi-merge calculation (average/average).
- In general, the current loan representative tri-merge (middle/lower/lowest) score is calculated as follows:
  - For each borrower, select the middle of three credit repository scores or the lower of two credit repository scores.
  - Then, select the lowest credit score across all borrowers on the loan.
- For the loan representative tri-merge (average/average) score:
  - For each borrower, calculate the average of the three credit repository scores.
  - Then, calculate the average score across all borrowers.
- For the loan representative bi-merge (average/average) score:
  - For each borrower, calculate the average of the two credit repository scores from these repository combinations: Experian/Equifax, Experian/TransUnion, and Equifax/TransUnion.
  - Then, calculate the average score across all borrowers.
  - The resulting three representative scores for each credit repository combination will be sorted and disclosed from lowest to highest.
- Please reference the Appendix for examples of the different calculation methods.
- File layouts and other technical details for each data file are provided on the following pages. Each file is a pipe-delimited text file and contains a header row.

Log-in Information:

- Access to the historical credit score files is available on the Freddie Mac Credit Score Models webpage.
- To obtain access to the historical files, users must register through a webpage hosted by Finsight Group, Inc. and accept the Terms and Conditions.

Single-Family Loan-Level Dataset (SF LLD) File Format

ID	Attribute Name	Attribute Definition	Data Type	Format	Max Length	Notes
SFLLD-01	Origination Quarter	The loan origination year and quarter.	String	YYYYQn	6	n = origination quarter
SFLLD-02	Loan Identifier	The unique designation assigned to the loan by the issuer as represented in the SF LLD disclosures.	String	PYYQnXXXXXXX	12	For the loan identifier, 'P' represents F for FRM or A for ARM. 'YYQn' represents the origination year and quarter. The XXXXXXX represents randomly assigned digits.
SFLLD-03	VantageScore® 4.0 Current Method	The VantageScore® 4.0 Indicator Score determined using the GSEs' "Tri-Merge, Middle/Lower/Lowest" methodology.	Numeric	300-850	4	Field header = VS4_Current Method
SFLLD-04	VantageScore® 4.0 Tri-Merge	The VantageScore® 4.0 Indicator Score determined using the "Tri-Merge, Average-then-Average" methodology.	Numeric	300-850	4	Field header = VS4_TriMerge
SFLLD-05	VantageScore® 4.0 Bi-Merge Lowest	The lowest VantageScore® 4.0 Indicator Score determined using the "Bi-Merge, Average-then-Average" methodology.	Numeric	300-850	4	Field header = VS4_BiMerge_Lowest
SFLLD-06	VantageScore® 4.0 Bi-Merge Median	The median VantageScore® 4.0 Indicator Score determined using the "Bi-Merge, Average-then-Average" methodology.	Numeric	300-850	4	Field header = VS4_BiMerge_Median
SFLLD-07	VantageScore® 4.0 Bi-Merge Highest	The highest VantageScore® 4.0 Indicator Score determined using the "Bi-Merge, Average-then-Average" methodology.	Numeric	300-850	4	Field header = VS4_BiMerge_Highest

Credit Risk Transfer (CRT) File Format

ID	Attribute Name	Attribute Definition	Data Type	Format	Max Length	Notes
CRT-01	Deal Name	The unique designation assigned to the deal by the issuer.	String		6	
CRT-02	Loan Identifier	The unique designation assigned to the loan by the issuer, as represented in the CRT loan level disclosures.	String		12	
CRT-03	VantageScore® 4.0 Current Method	The VantageScore® 4.0 Indicator Score determined using the GSEs' "Tri-Merge, Middle/Lower/Lowest" methodology.	Numeric	300-850	4	Field header = VS4_Current Method
CRT-04	VantageScore® 4.0 Tri-Merge	The VantageScore® 4.0 Indicator Score determined using the "Tri-Merge, Average-then-Average" methodology.	Numeric	300-850	4	Field header = VS4_TriMerge
CRT-05	VantageScore® 4.0 Bi-Merge Lowest	The lowest VantageScore® 4.0 Indicator Score determined using the "Bi-Merge, Average-then-Average" methodology.	Numeric	300-850	4	Field header = VS4_BiMerge_Lowest
CRT-06	VantageScore® 4.0 Bi-Merge Median	The median VantageScore® 4.0 Indicator Score determined using the "Bi-Merge, Average-then-Average" methodology.	Numeric	300-850	4	Field header = VS4_BiMerge_Median
CRT-07	VantageScore® 4.0 Bi-Merge Highest	The highest VantageScore® 4.0 Indicator Score determined using the "Bi-Merge, Average-then-Average" methodology.	Numeric	300-850	4	Field header = VS4_BiMerge_Highest

Mortgage-Backed Securities (MBS) File Format

ID	Attribute Name	Attribute Definition	Data Type	Format	Max Length	Notes
MBS-01	Prefix	The designation assigned by the issuer denoting the type of the loan and the security.	String		3	
MBS-02	Security Identifier	The unique designation assigned to the security by the issuer.	String		6	
MBS-03	Issue Date	The date on which the security was issued.	Date	MMDDCCYY	8	Day value will be set to '01'.
MBS-04	Loan Identifier	The unique designation assigned to the loan by the issuer, as represented in the MBS loan level disclosures.	String		12	
MBS-05	VantageScore® 4.0 Current Method	The VantageScore® 4.0 Indicator Score determined using the GSEs' "Tri-Merge, Middle/Lower/Lowest" methodology.	Numeric	300-850	4	Field header = VS4_Current Method
MBS-06	VantageScore® 4.0 Tri-Merge	The VantageScore® 4.0 Indicator Score determined using the "Tri-Merge, Average-then-Average" methodology.	Numeric	300-850	4	Field header = VS4_TriMerge
MBS-07	VantageScore® 4.0 Bi-Merge Lowest	The lowest VantageScore® 4.0 Indicator Score determined using the "Bi-Merge, Average-then-Average" methodology.	Numeric	300-850	4	Field header = VS4_BiMerge_Lowest
MBS-08	VantageScore® 4.0 Bi-Merge Median	The median VantageScore® 4.0 Indicator Score determined using the "Bi-Merge, Average-then-Average" methodology.	Numeric	300-850	4	Field header = VS4_BiMerge_Median
MBS-09	VantageScore® 4.0 Bi-Merge Highest	The highest VantageScore® 4.0 Indicator Score determined using the "Bi-Merge, Average-then-Average" methodology.	Numeric	300-850	4	Field header = VS4_BiMerge_Highest

Appendix: Historical Credit Score Calculation Examples

Step 1: Calculate Borrower Credit Score Options based on VantageScore® 4.0

Borrowers	Loan Identifier	Bureau 1	Bureau 2	Bureau 3	Current Median/Lower of Bureaus	Tri-Merge Average of 3 Bureaus	Bi-Merge Average of Bureau 1 & 2	Bi-Merge Average of Bureau 2 & 3	Bi-Merge Average of Bureau 1 & 3
Borrower 1	Loan 1	700	710	720	710	710	705	715	710
Borrower 2		680	685	695	685	687	683	690	688
Borrower 1	Loan 2	740	745	N/A	740	743	743	745	740
Borrower 2		775	780	N/A	775	778	778	780	775
Borrower 1	Loan 3	640	660	670	660	657	650	665	655
Borrower 1	Loan 4	N/A	660	670	660	665	660	665	670
Borrower 1	Loan 5	740	755	N/A	740	748	748	755	740
Borrower 2		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Step 2: Calculate Loan Credit Score Options based on VantageScore® 4.0

Loan Identifier	Current Median/Lower of Bureaus then Lowest of Borrowers	Tri-Merge Average of 3 Bureaus then Average of Borrowers	Bi-Merge Average of Bureau 1 & 2 then Average of Borrowers	Bi-Merge Average of Bureau 2 & 3 then Average of Borrowers	Bi-Merge Average of Bureau 1 & 3 then Average of Borrowers
Loan 1	685	699	694	703	699

Loan 2	740	761	761	763	758
Loan 3	660	657	650	665	655
Loan 4	660	665	660	665	670
Loan 5	740	748	748	755	740

Step 3: Sort Bi-Merge Loan Options from lowest to highest for VantageScore® 4.0 historical credit score file.

Loan Identifier	VS4 Current Method	VS4 Tri-Merge	VS4 Bi-Merge Lowest	VS4 Bi-Merge Median	VS4 Bi-Merge Highest
Loan 1	685	699	694	699	703
Loan 2	740	761	758	761	763
Loan 3	660	657	650	655	665
Loan 4	660	665	660	665	670
Loan 5	740	748	740	748	755