



Fannie Mae®

Investor Reporting Performance Metrics

REFERENCE GUIDE
VERSION 5.0



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I. About This Document

This document serves as a reference guide to the Investor Reporting Performance Metrics. This document will be updated from time to time as the program continues to evolve.

This document provides additional context for servicers as they evaluate their results as represented in the STAR Program Scorecard. Details regarding the Investor Reporting performance metrics can be found in the Metrics Definitions and Performance Measurement Methodology section of this document.

Investor Reporting Performance Metric Guide primarily examines the following topics:

- Investor Reporting Performance Metrics Definitions
- Performance Measurement Methodology

Resources

The Lender Marketing ID referred to in this document is a unique identifier that is common to every counterparty Fannie Mae does business with. It is a five-character designation that uniquely identifies a common corporate family relationship. Marketing identifiers are a mechanism used to organize lenders into groups for tracking purposes. It is the counterparty that Fannie Mae is exposed to from either a lending or servicing perspective.

II. Introduction

Investor Reporting (IR) Performance Metrics

Servicers are evaluated based on their performance related to Investor Reporting metrics which measure servicer efficiency of their reporting and remittance functions.

The IR Performance Metrics are designed to help our servicers quickly identify opportunities for improvement. Overall, the IR Performance Metrics monitor servicers' progress and trends against key indicators selected to reflect Investor Reporting's current business objectives. These objectives are weighted by their current strategic importance to Fannie Mae.

III. Investor Reporting Performance Metric Definitions

Metric No	Fannie Mae Weighted Metrics	Weight Per Metric
1	Multi-Occurrence Hard Reject Rate	20
2	Ending Hard Reject Rate	5
3	Aged Recurring Hard Reject Rate	25
4	Multi-Occurrence Soft Reject Rate	10
5	Aged Recurring Soft Reject Rate	15
6	Shortage Percent	25
	Total	100

Metric No	Fannie Mae Non-Weighted Metrics	Weight Per Metric
7	Surplus Percent	0
8	Loans Not Reported Rate	0
9	LAR 83 Discrepancy Rate	0
10	Average Days Reporting Liquidations	0

NOTE: Fannie Mae reserves the right to revise the weights and threshold ranges assigned per metric.



Fannie Mae Weighted Metrics:

1. Multi-Occurrence Hard Reject Rate (*Metric Weight = 20*):

Percentage of loans in portfolio with multi-occurrence hard rejects for the activity month selected. Multi-occurrence hard rejects are hard rejects that have occurred on individual loans over the span of three consecutive reporting periods, including the current activity period, as a percentage of the total loan count¹. If the loan is an A/A bi-weekly loan and had a hard reject, it is included if the payment due date falls within the selected activity month, but it is only included once even if there are multiple payment due dates or hard reject occurrences within the selected activity month.

The hard reject is triggered when the servicer's reported Loan Activity Report (LAR) does not meet Fannie Mae's (Servicer Investor Reporting SIR system) expected principal value for the activity month selected.

$$\text{Multi-Occurrence Hard Reject Rate} = \{(\text{Multi-Occurrence Hard Reject Loan Count}) / (\text{Total Loan Count})\} * 100$$

If the denominator is zero, then display Multi-Occurrence Hard Reject Rate as zero.

Example:

If the multi-occurrence hard reject loan count is 1,850 and the total loan count is 100,000 then the Multi-Occurrence Hard Reject Rate would be 1.85%.

2. Ending Hard Reject Rate (*Metric Weight = 5*):

Percentage of loans in portfolio with ending hard rejects for the activity month selected. It measures the number of loans that stayed as hard reject at the end of the processing period (i.e. hard rejects that occurred during the processing period which were not resolved by the end of the processing period) as a percentage of the total loan count. For summary loans, the numerator is count of unique loans which had an occurrence of a payment hard reject for the activity month selected that exists at the end of reporting cycle. If the loan is an A/A bi-weekly loan and had a hard reject, it is included if the payment due date falls within the selected activity month, but it is only included once even if there are multiple payment due dates or hard reject occurrences within the selected activity month.

$$\text{Ending Hard Reject Rate} = \{(\text{Ending Hard Reject Loan Count}) / (\text{Total Loan Count})\} * 100$$

If the denominator is zero, then display Ending Hard Reject Rate as zero.

Example:

If the ending hard reject loan count is 105 and the total loan count at the beginning of the reporting cycle is 100,000 then the Ending Hard Reject Rate would be .105%.

3. Aged Recurring Hard Reject Rate (*Metric Weight = 25*):

Percentage of loans in portfolio with aged recurring hard rejects for the activity month selected. Aged recurring hard rejects are hard rejects that have occurred on individual loans over the span of five consecutive reporting periods, including the current activity period.

$$\text{Aged Recurring Hard Reject Rate} = \{(\text{Aged Recurring Hard Reject Loan Count}) / (\text{Total Loan Count})\} * 100$$

If the denominator is zero, then display Aged Recurring Hard Reject Percentage as zero.

Example:

If the aged recurring hard reject loan count is 8 and the total loan count 100,000 then the Aged Recurring Hard Reject Rate for the reporting period would be .008%.

4. Multi-Occurrence Soft Reject Rate (*Metric Weight = 10*):

Percentage of loans in portfolio with multi-occurrence soft rejects for the activity month selected. Multi-occurrence soft rejects are soft rejects that have occurred on individual loans over the span of three consecutive reporting periods, including the current activity period, as a percentage of the total loan count. For summary loans, the numerator is count of unique loans which had an occurrence of a payment soft reject for the activity month selected cycle. If the loan is a bi-weekly loan and had a

¹ Total Loan Count = Total loans in the beginning of the cycle + readds + new acquisitions



soft reject, it is included if the payment due date falls within the selected activity month, but it is only included once even if there are multiple payment due dates or hard reject occurrences within the selected activity month.

The soft reject is triggered when the servicer's reported Loan Activity Report (LAR) does not meet the Fannie Mae's (Servicer Investor Reporting SIR system) expected interest value for the activity month selected.

$$\text{Multi-Occurrence Soft Reject Rate} = \{(\text{Multi-Occurrence Soft Reject Loan Count}) / (\text{Total Loan Count})\} * 100$$

If the denominator is zero, then display Multi-Occurrence Soft Reject Rate as zero.

Example:

If the multi-occurrence soft reject loan count is 1,500 and the total loan count is 100,000 then the Multi-Occurrence Soft Reject Rate would be 1.50%.

5. Aged Recurring Soft Reject Rate (Metric Weight = 15):

Percentage of loans in portfolio with aged recurring soft rejects for the activity month selected. Aged recurring soft rejects are soft rejects that have occurred on individual loans over the span of five consecutive reporting periods, including the current activity period.

$$\text{Aged Recurring Soft Reject Rate} = \{(\text{Aged Recurring Soft Reject Loan Count}) / (\text{Total Loan Count})\} * 100$$

If the denominator is zero, then display Aged Recurring Soft Reject Percentage as zero.

Example:

If the aged recurring soft reject loan count is 5 and the total loans in portfolio at the beginning of the reporting cycle is 100,000 then the Aged Recurring Soft Reject Rate for the reporting period would be .005%.

6. Shortage Percent (Metric Weight = 25):

Measures the rate at which a servicer's monthly remittance is less than the total amount expected to be remitted by Fannie Mae's Investor Reporting System (SIR). Shortage Percent is Total Shortage Amount divided by Total Due where Total Due is equal to Total Monthly Remittances plus the Total Shortage Amount less the Total Surplus Amount. Total Shortage Amount is the shortage balance at the close of cash reconciliation activity period for A/A remittance.

$$\text{Shortage Percent} = \{(\text{Sum (Total A/A Shortage Amount)}) / (\{(\text{Sum (Total Monthly Remittance for A/A loans)}) + \{(\text{Sum (Total A/A Shortage Amount)}) - \{(\text{Sum (Total AA Surplus Amount)})\}\} * 100$$

Example:

9-Digit Servicer Numbers for Lender Marketing ID	Total Shortage Amount (A/A)	Total Surplus Amount (A/A)	Monthly Remittance Amount (A/A)
12340-000-6	\$0.02	\$0.00	\$4,026,622.08
12340-001-4	\$0.00	\$1,019,391.85	\$76,521,300.63
12340-002-2	\$0.00	\$3.21	\$3,568,114.34
12340-004-9	\$112.15	\$0.00	\$866,679.64
12340-005-7	\$0.00	\$13,982.84	\$4,175,189.45
12340-007-3	\$0.00	\$97,581.77	\$1,828,378.68
12340-012-0	\$1,396.09	\$1,490.47	\$12,697,546.97
12340-015-4	\$0.00	\$0.00	\$0.00
23456-004-8	\$0.00	\$2,168.56	\$0.00
Total	\$1,508.26	\$1,134,618.70	\$103,683,831.79



$$\text{Shortage Percent} = \{ \$1,508.26 / (\$103,683,831.79 + \$1,508.26 - \$1,134,618.70) \} * 100$$

$$= 0.0014\%$$

Fannie Mae Non-Weighted Metrics:

7. Surplus Percent:

Measures the rate at which a servicer's monthly remittance is more than the total amount expected to be remitted by Fannie Mae's Investor Reporting System (SIR). Surplus Percent is Total Surplus Amount divided by Total Due where Total Due is equal to Total Monthly Remittance plus the Total Shortage amount less the Total Surplus Amount. Total Surplus amount is the surplus balance at the close of cash reconciliation activity period for A/A cash remittance type.

$$\text{Surplus Percent} = \{ \text{Sum (Total A/A Surplus Amount)} \} / \{ \text{Sum (Total Monthly Remittance for A/A loans)} + \{ \text{Sum (Total A/A Shortage Amount)} \} - \{ \text{Sum (Total AA Surplus Amount)} \} \} * 100$$

Example:

9-Digit Servicer Numbers for Lender Marketing ID	Total Shortage Amount (A/A)	Total Surplus Amount (A/A)	Monthly Remittance Amount (A/A)
12340-000-6	\$0.02	\$0.00	\$4,026,622.08
12340-001-4	\$0.00	\$1,019,391.85	\$76,521,300.63
12340-002-2	\$0.00	\$3.21	\$3,568,114.34
12340-004-9	\$112.15	\$0.00	\$866,679.64
12340-005-7	\$0.00	\$13,982.84	\$4,175,189.45
12340-007-3	\$0.00	\$97,581.77	\$1,828,378.68
12340-012-0	\$1,396.09	\$1,490.47	\$12,697,546.97
12340-015-4	\$0.00	\$0.00	\$0.00
23456-004-8	\$0.00	\$2,168.56	\$0.00
Total	\$1,508.26	\$1,134,618.70	\$103,683,831.79

$$\text{Surplus Percent} = \{ \$1,134,618.70 / (\$103,683,831.79 + \$1,508.26 - \$1,134,618.70) \} * 100$$

$$= 1.1063\% \text{ (Surplus Percent)}$$

8. Loans Not Reported Rate:

Percentage of unique active loans in portfolio which were not reported (missing LAR) in a timely manner as per Fannie Mae's policies and guidelines. It measures the number of loans not reported as a percentage of the total loans in portfolio for a given month.

Loans Not Reported Loan Count is comprised of:

- a. Loans not reported as of Interim Reporting End Date² close and

² Interim Reporting End Date Missing LAR population:

- Excludes 'missing loans due to reclass activity' and
- Excludes missing loans acquired two business days prior to Interim Reporting End Date
- Excludes missing loans with acquisition date of last business day of the activity month



b. Loans not reported as of Reporting Cycle Close (i.e. BD2)

Loans Not Reported Rate = [(Loans Not Reported Loan Count) / (Total Loans in Portfolio) *100]

Example: If the unique number of Loans Not Reported is 6, and the total number of loans in the portfolio is 100, the loans not reported rate would be 6%.

Activity Month: 03/2017	
Loans Not Reported as of Interim Reporting End Date Close i.e. CD22	
Fannie Mae Loan Number	
4111111111	
1611111111	
4211111111	
4131111111	
Loans Not Reported as of Reporting Cycle Close i.e. BD2	
Fannie Mae Loan Number	
4111111111	
1635111111	
1636111111	
Loans Not Reported Loan Count (unique count)	4+2 = 6
Total loans in portfolio	100
Loans Not Reported Rate = 6/100 = 6%	

9. LAR 83³ Discrepancy Rate⁴:

Percentage of unique active ARM loans in portfolio with outstanding note rate and/or payment change discrepancies (those due for a scheduled change but missing LAR 83 and those with LAR 83 exceptions) at any point in a given activity month. It measures the number of ARM loans with note rate and/or payment change discrepancies (outstanding 5 business days after the note rate and/or payment projection date) as a percentage of total number of ARM Projections for the activity month.

LAR 83 Discrepancy Rate = [(LAR 83 Discrepancy ARM Loan Count) / (Number of ARM Projections for the activity month) *100]

Example: If the number of LAR 83 Discrepancy ARM Loan Count is 10 and the number of ARM Projections for the activity month is 100, then the LAR 83 Discrepancy Rate would be 10%.

10. Average Days Reporting Liquidations:

Average days for a servicer to report a liquidation LAR in an accepted state

Average Days Reporting Liquidations = Total business days (Action Date - Accepted Date)/ Number of liquidated loans

- Excludes delinquency modification loans that were completed or closed in the current cycle with a reversed payment LAR (LAR 96/97) as of Interim Reporting End Date + 1 day

³ LAR 83 - Loan Activity Report (LAR) Transaction 83: Interest Rate/Payment Change Reporting

⁴ LTSC (Long Term Standby Commitment) loans are excluded from this metric



Example:

FANNIE MAE LOAN NUMBER	Action Code	Action Date	Accepted Date	Difference (action date - accepted date)
1111111112	60	4/20/2015	4/21/2015	1 Business Day
2222222223	65	4/10/2015	4/13/2015	1 Business Day
4444444445	70	3/21/2015	4/20/2015	21 Business Days
222221223	60	4/20/2015	4/21/2015	1 Business Day
4444444444	60	4/20/2015	4/21/2015	1 Business Day
6666666667	60	4/20/2015	4/21/2015	1 Business Day
8888888889	60	4/20/2015	4/21/2015	1 Business Day
111111111	60	4/20/2015	4/21/2015	1 Business Day
1333333333	60	4/20/2015	4/21/2015	1 Business Day
1555555555	60	12/2/2014	4/20/2015	80 Business Days
1777777777	60	4/20/2015	4/21/2015	1 Business Day
1999999999	60	4/20/2015	4/21/2015	1 Business Day
5555555556	71	4/24/2015	4/30/2015	4 Business Days

Average days reporting liquidation

8.85

Please note each of the metrics above is displayed at Lender Marketing ID level (i.e. metric data is rolled up for nine-digit servicers per Marketing ID).

Example:

$$\text{Beginning Hard Reject Rate} = \{(\text{Beginning Hard Reject Loan Count}) / (\text{Total Loan Count})\} * 100 = \{(123 / 279,146) * 100\} = .0440\%$$

01/2015 Activity:

9-digit detail for Lender Marketing ID ABCDE:

Activity Month	Peer Group	Lender Mktg ID	Servicer Family Name	9-Digit Servicer Numbers for Lender Marketing ID	Total Portfolio Loans	Beginning Hard Reject Count
12015	2	ABCDE	ABC Banks, Inc.	12345-000-1	60259	68
12015	2	ABCDE	ABC Banks, Inc.	12345-000-2	942	0
12015	2	ABCDE	ABC Banks, Inc.	12345-000-3	68	0
12015	2	ABCDE	ABC Banks, Inc.	12345-005-0	2936	2
12015	2	ABCDE	ABC Banks, Inc.	12345-005-1	214939	53
12015	2	ABCDE	ABC Banks, Inc.	12345-005-2	2	0
Total					279146	123



Lender Marketing ID Data:

Peer Group	Servicer Name	Lender Mktg ID	Total Portfolio Loans	Beginning Hard Reject Count	Beginning Hard Reject Rate
1	ABC BANKS, INC.	ABCDE	279,146	123	0.0440%

Servicing Transfer Grace Period

A two-month grace period will be provided for **multi-occurrence** and **aged rejects** on loans which are transferred from one servicer to another. Any of these reject types inside a grace period will not count toward metric calculations. The historical reject counter for loans will also be reset upon transfer. This pertains to both hard and soft reject types. For a more detailed illustration, see **Appendix A**.

S/S Bi-weekly Loan Exclusion

Scheduled Interest/Scheduled Principal bi-weekly loans are excluded from the following metric calculations:

- Multi-Occurrence Hard Reject Rate
- Multi-Occurrence Soft Reject Rate
- Aged Recurring Hard Reject Rate
- Aged Recurring Soft Reject Rate
- Ending Hard Reject Rate
- Loans Not Reported Rate

IV. Performance Measurement Methodology

Measurement Criteria

Each of the 11 performance metrics below is measured against pre-defined thresholds to provide insight into servicer performance relative to Fannie Mae expectations. These thresholds have been established for 2019 activity (*The thresholds set forth in this document are not determined on a preset schedule and are subject to periodic adjustments based on an evaluation of current strategic importance to Fannie Mae*). For servicers to clearly understand how they are performing on each of the metrics, a performance indicator will be provided each month. For example, if the threshold for metric A was 1.0%, and the servicer exceeded that value for the given period, an un-favorable to threshold indicator would be assigned for metric A.

Score Grid:

Score grid constitutes current weight assignments and thresholds for each metric.

Effective Date	Metric Item	Weight	MIN	MAX
3/1/2019	Ending Hard Reject Rate	5	0.0010%	0.0100%
3/1/2019	Shortage Percent	25	0.0020%	0.0500%
3/1/2019	Surplus Percent	0	0.1000%	1.0000%
3/1/2019	Aged Recurring Hard Reject Rate	25	0.0010%	0.0050%
3/1/2019	Aged Recurring Soft Reject Rate	15	0.0020%	0.0080%
3/1/2019	Multi Occurrence Hard Reject Rate	20	0.0050%	0.0250%
3/1/2019	Multi Occurrence Soft Reject Rate	10	0.0100%	0.0500%
3/1/2019	Loans Not Reported Rate	0	--	--
3/1/2019	LAR 83 Discrepancy Rate	0	--	--
3/1/2019	Average Days Reporting Liquidations	0	--	--
3/1/2019	Final Score		1.96	2.51



NOTE: Metrics highlighted above in blue are the Fannie Mae weighted metrics

NOTE: Fannie Mae reserves the right to revise the weights and threshold ranges assigned per metric.

Each of the 11 metrics above follows the rule below:

		Score
Above Threshold	>Max	1
At Threshold	>Min and =<Max	2
Below Threshold	=<Min	3

Score Range 1 to 3 (1 being the lowest and 3 being the highest).

Servicers receive scores for each metric. The final score is calculated using the formula below and the end results will determine servicer's final performance rating.

Final Score & Rating:

Final Score is calculated for each Lender Marketing ID based on the weights assigned for metrics.

$$\text{Final Score} = \frac{\sum \{(\text{Score for each metric} * \text{Weight assigned to metric})\}}{\text{Sum of all weights}}$$

Final score corresponds to color rating as shown below:

		Rating
Above Threshold	=> MAX	Favorable
At Threshold	=> MIN and < MAX	Neutral
Below Threshold	< MIN	Unfavorable

Example:

Final Score	MIN	MAX	Rating
2.51	1.96	2.51	Favorable
2.25	1.96	2.51	Neutral
1.80	1.96	2.51	Unfavorable

Servicer Example:

For a servicer example, please refer to **Appendix B**.



V. Resources and Appendix

Servicer Support

For servicer support or additional information related to the Investor Reporting Servicer Performance Metrics:

- Contact your Investor Reporting Analyst. Should you need assistance retrieving your Analyst's contact information, you may call 1-800-2FANNIE and select option "5" for Investor Reporting

Appendix A

Servicing Transfer Grace Period Example:

A two-month grace period will be provided for *multi-occurrence* and *aged rejects* on loans which are transferred from one servicer to another. The spreadsheet below illustrates how rejects are counted after a transfer in servicing.

<https://www.fanniemae.com/content/tool/investor-reporting-metrics-servicing-transfer-example.xlsx>

Appendix B

Final Score and Color Example:

The attached spreadsheet provides an illustration of how the final score and rating are determined for each Marketing ID.

<https://www.fanniemae.com/content/tool/investor-reporting-metrics-final-score-color-example.xlsx>