Fannie Mae

How to calculate a defect rate

An effective way to establish loan quality targets is to model the financial exposure created at a certain defect level. The concept of "zero defects" generally will be considered challenging to achieve, and Fannie Mae does not evaluate lenders by a zero-defect-rate standard. We expect lenders to set defect rate targets as reasonably low as possible based on a formal cost–benefit analysis of meeting that target. We then expect lenders to demonstrate to us how they are managing loan quality to meet their established target.

Having a **target defect rate** is required for the top severity level (ineligible for delivery to Fannie Mae), and enables the lender to regularly evaluate and measure progress in meeting its loan quality standards. Lower severity levels must be defined by the lender as appropriate for its organization, and different target defect rates may be established for different severity levels (if applicable).

Calculating a defect rate is how you measure against your target defect rate. Some lenders use only a GROSS or a NET calculation when determining their monthly defect rate, while others use both. The GROSS defect rate is the defect rate based on the initial findings prior to any rebuttal activity. The NET defect rate is the defect rate based on the final findings after the rebuttal activity. **Understanding the root cause of the issues that were resolved during the rebuttal process may provide insight into how the defects can be prevented.**

If a loan has both a highest-severity level defect and a lower-severity level defect, only count the loan ONCE — in the highest-severity category — in a defect rate calculation.

The following are examples of calculating gross and net defect rates for a lender that has defined its defect categories as **significant** and **moderate**:

January Fundings: 1,000 loans | 10% QC Sample Selection: 100 loans

How to calculate a **gross** defect rate

This calculation should be done for your two most severe defect types (e.g., Significant and Moderate).

# of loans with a defect

divided by

# of loans in the QC sample size

example > # of loans with a significant defect: **5**

5/100 = 5% gross significant defect rate

example > # of loans with a moderate defect: **10**

10/100 = 10% gross moderate defect rate

How to calculate a **net** defect rate

# of loans with a defect — **# of corrected loans**

divided by

# of loans in the QC sample size

example > # of loans with a significant defect: **5** minus the # of resolved significant defects prior to the final QC report: **3**

5 - 3/100 = 2% net significant defect rate

example > # of loans with a moderate defect: **10** minus the # of resolved moderate defects prior to the final QC report: **4**

10 - 4/100 = 6% net moderate defect rate

Analysis and remediation – analyzing the defect

Once initial (gross) defects are cured, it is important to determine root causes, analyze issues, and reconcile the difference between your gross and net defects and action plan accordingly.

Analyze the cause between the gross and net defect rates. The goal is to identify and remediate the issues to narrow the gap between the gross and net defect rates.

How was the initial finding resolved prior to the distribution of the final QC report?

example > **Initial defect = insufficient income**

- Defect: All income documentation used to underwrite the file was not provided to QC for review.
- Resolution: During the rebuttal process, the additional income documentation missing from the QC file was provided.
- Action Plan: Implement processes/checks to ensure that all documentation used to underwrite the loan is in the file.