

Gross vs. net defect rates: why they matter

Loan quality starts at the top in a successful lending operation with a risk culture that is committed to manufacturing loans that support sound credit decisions. An effective quality control (QC) program is a critical part of creating and maintaining a high level of loan manufacturing quality that both supports and reflects a strong risk culture.

Lenders are responsible for maintaining standards for loan quality and for implementing processes to achieve those standards. Part of those processes is establishing a target defect rate for the organization that reflects its quality standards and goals. The Fannie Mae *Selling Guide* allows organizations to set different target defect rates for different severity levels. At a minimum, a target defect rate is required for the organization's top severity level (ineligible for delivery to Fannie Mae or investors) and is measured using the lender's post-closing random QC sample results. The target defect rate should be set as reasonably low as possible — and you should periodically reassess the target with the goal of reducing defects over time.

Calculating and tracking your actual defect rate against your target defect rate is how you assess your credit and financial risk performance as well as measure progress in meeting your loan quality standards.

- The **gross (initial)** defect rate is the defect rate based on any initial findings prior to any rebuttal activity.
- The **net (final)** defect rate is the defect rate based on the final findings after the rebuttal activity.

Managing both gross and net defect rates is important to fully understand the financial exposure created by the defects identified during your QC review process.

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

$$\frac{\text{\# of loans with a defect}}{\text{\# of loans in the QC sample size}}$$

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

$$\frac{\text{\# of loans with a defect} - \text{\# of corrected loans}}{\text{\# of loans in the QC sample size}}$$

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

Why is it important to identify, track, trend, and report both gross (initial) and net (final) defect rates?

The post-closing random QC sample is designed to provide a measure of quality for the lender's overall book of business. The Fannie Mae *Selling Guide* requires lenders' monthly post-closing QC reports to reflect the final net defect rate for the results of the current review period.

However, the **gross** defect rate is the true measure of a lender's manufacturing quality for its overall book of business. The difference between the gross and net defect rates is the measure of how good a lender is at "cleaning up" or correcting the loan defects in the sample. Understanding the difference is critical because a lender is not actually correcting every loan with a defect in the overall book of business — rather, they're only correcting the loans in the random sample.



Example of how to extrapolate defect rates across overall book of business

Period	Random sample reviews	Gross (initial) defects	Gross (initial) significant defect rate	Net (final) defects	Net (final) significant defect rate	Total population	# Ineligible loans (initial) based on total population	# Ineligible loans (final) based on total population	Difference initial - final	Cost to cure (avg. 3 hours @ \$20/hr)
Jan '21 - Mar '21	156	3	1.92%	2	1.28%	15,862	305	203	102	\$6,120.00
Feb '21 - Apr '21	155	2	1.29%	2	1.29%	13,409	173	173	0	\$-
Mar '21 - May '21	160	5	3.13%	1	0.63%	16,409	513	103	410	\$24,600.00
Apr' 21 - Jun '21	157	6	3.82%	3	1.91%	17,585	672	336	336	\$20,160.00
May '21 - Jul '21	158	2	1.27%	2	1.27%	14,682	186	186	0	\$-
Jun '21 - Aug '21	165	2	1.21%	0	0.00%	13,890	168	0	168	\$10,080.00
Total (or avg.)	951	20	2.11%	10	1.06%	91,837	2,017	1,001	1,016	\$60,960.00

Fannie Mae strongly recommends that lenders identify, track, recognize trends, and report both the gross and net defects identified during the review process. Analyzing the root cause of the defects that were corrected during the rebuttal process will provide insight into how those defects can be prevented in the future, thereby reducing the overall credit and financial risk. There is no way for the organization to know whether or not identified defects will cause a financial loss, so the best practice is to assume they will have a cost if no action is taken to prevent them.

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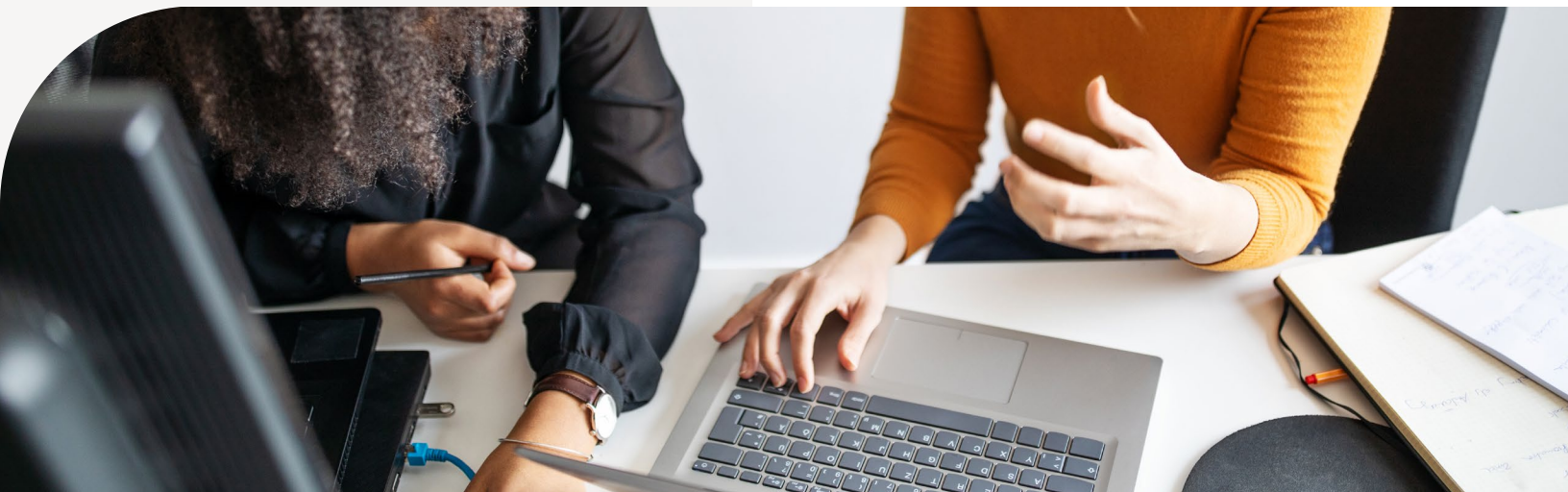
Ask yourself:

- Do we identify the gross (initial) and net (final) defects during our reviews?
- Do we understand the **difference** between the gross and net rates?
- What specific defects were cleared between initial identification and closing out the QC review?
- How often is this specific gross defect being cited and corrected?
- How are the gross defects being corrected?
 - Was a defect caused by a document never obtained, or are you having to re-work loan files?
 - Was the document misfiled within your imaging system or not in the file at all?
 - Do you have the document somewhere in your organization (with the loan officer, processor, or underwriter), or did you have to go back to the borrower or third-party originator?
- What is the cost to correct the defect (staff hours to follow up, lost staff hours in new production)?
- What is the reputational risk of having to go back to the borrower several months after closing for a missing document?

Best practices

While best practices aren't a *Selling Guide* requirement, utilizing these strategies can enhance your overall QC processes. Consider establishing some best practices to address the high gross defect rates you might be experiencing in your post-closing QC reviews. By analyzing the corrected defects and determining root cause, you can create an action plan to decrease the defects.

- Track the difference between the gross (initial) and net (final) defect rates month over month. Create a simple visualization using a line graph so you can quickly see trends. Is the gap between the two increasing or decreasing?
- Ensure you have a defect taxonomy structure that is clear, easily understood, and granular enough to be actionable. Simply tracking defects at the broad category level will make the root cause analysis process more difficult.
- Identify and track the defects that get corrected, looking for trends. Create reporting that highlights the top defects that get corrected and share with your management teams in the monthly QC reports.
- Once the initial defects are corrected, it is important to determine the root cause, analyzing the issues and reconciling the difference between your gross and net defects.
- Create an action plan using the data from your root cause analysis with the goal of narrowing the gap between the gross and net defect rates.
- Perform a cost-benefit analysis by quantifying the time spent tracking down missing or misfiled documents or having to rework loans.



Next steps

Is there a significant gap between your gross defect rate and your net defect rate? Challenge yourself to understand the difference and the impacts. Do you already have specific controls in place to monitor your gross and net defects? If not, consider the following:

- ✓ Track whether documents were misfiled or never obtained. The risk to your organization is different in these scenarios, and too often lenders simply report “missing doc,” which doesn’t differentiate between different remediation outcomes.
- ✓ Implement corrective actions to reduce the number of gross defects, thereby reducing inefficiencies in your operational process.
- ✓ Set a goal to reduce your overall gross defect rate and empower your QC department to drive loan manufacturing improvements to reduce your company’s overall risk and financial exposure.

Resources

[Selling Guide Section D1-1-01, Lender Quality Control Programs, Plans, and Processes](#)

[Selling Guide Section D1-3-06, Lender Post-Closing Quality Control Reporting, Record Retention, and Audit](#)

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