



FEATURING
**A NEW METHOD FOR MEASURING
LENDER PERFORMANCE**

STRATMOR *INSIGHTS*

Volume 2, Issue 9
September, 2017

WELCOME

Can you believe MBA Annual is only a month away? And it's in my hometown of Denver, Colorado. If you'd like to meet with STRATMOR during this event, click here: [MBA Annual STRATMOR Meetings](#) and select the green CONTACT US NOW box.

In this month's issue, STRATMOR shares our perception that mortgage lenders have utilized virtually the same metrics to assess financial and operational performance for the past 30 years. Considering how dramatically our market has changed during this time, STRATMOR has been exploring new techniques to enhance the way lenders measure performance versus peers. Our lead-off *In-Focus* article, "A New Method for Measuring Lender Performance vs. Peers", describes one such new technique. We believe that it is quite interesting and hope that you do, too.

In the *Mortgage Metrics Matters* section, we present data derived from our *2016 Technology Insights Survey* that addresses: (a) how effectively lenders' LOS systems provide compliance functionality; and (b) what functionality lenders feel is "most missing" from their LOS systems. A real eye opening in this article is how few lenders perceive that the compliance functionality of their LOS system is "Highly Effective." Furthermore, the low satisfaction given by lenders to

certain LOS functionalities opens the door to great opportunities for third-party vendors.

Finally, the Topic of the Month within our *Speaking Borrower Satisfaction* section considers how a borrower's race-national origin, marital status and the amount of their loan affect satisfaction. This is third of a three-part installment looking at what borrower attributes affect satisfaction. And again, as we have noted in the first two installments, the impacts of the attributes considered are relatively small, reinforcing the view that the mortgage lenders treat all borrowers the same (at least as regards borrowers whose loans close).

We hope to see you next month in Denver!

Lisa Springer, CEO

STRATMOR INSIGHTS

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A NEW METHOD FOR MEASURING LENDER PERFORMANCE VS. PEERS

By Dr. Matt Lind

Mortgage lenders have utilized virtually the same metrics to assess performance for the past 30 years. Considering how dramatically our market has changed during this time, STRATMOR Group has been exploring new techniques to enhance the way lenders can measure performance versus peers.

As a leader in gathering and providing a variety of performance benchmarking data to the industry, STRATMOR is a strong proponent of lenders using benchmarking data to manage and improve their performance. While internal comparisons are useful — for example, comparing this quarter’s performance to the prior quarter or the same quarter last year — only by comparing peer-to-peer performance can lenders gain a more real and useful assessment of how well they are doing and, perhaps more important, where they need to improve.

STRATMOR’s new method for benchmarking lender production or servicing performance can be applied to virtually any traditional performance metric, from direct production margin and direct origination expense per loan to loans serviced per servicing FTE and more. Common benchmarking comparisons enable a lender to say: “My direct retail origination

expense per loan is \$200 less than average.” With the new method, this same lender could say: “My direct retail origination expense per loan is equal to or better than 62 percent of lenders.”

STRATMOR believes this new method provides lenders with a better sense of their competitive performance than simple comparisons to averages or medians.

What the New Metric Means to You

Imagine a simple one-metric calculator such as the one below. In this example, we have entered hypothetical direct margin data (as used here, direct margin includes all revenues and expenses except

	Retail	CD
Direct Margin (bps)	95	148
Better than %	54.4%	52.4%

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for corporate allocation expense) for a lender that originates in both the retail and consumer direct channels.

We've entered 95 bps as the direct margin for this lender's origination operations and the calculator comes back with 54.4 percent. This result tells us that at 95 bps, this lender's retail direct margin is equal to or better than 54.4 percent of the retail originating population of lenders in the data base. Similarly, at 148 bps, this lender's direct margin in consumer direct (CD) is equal to or better than 52.4 percent of the lender population originating loans in the channel. STRATMOR believes that this perspective is much more meaningful to our clients than internal comparisons alone.

When the CEO asks you how good a 100-bps retail direct margin is in relation to the competition, you can say: "It's estimated that our retail direct margin is better than 55.31 percent of lenders." However, to make even this estimate requires that you know the average and standard deviation of the true or underlying distribution of lender retail direct margin.

For Math Geeks Only: STRATMOR Does the Math

To generate such direct margin calculations (or similar calculations for other performance metrics) with accuracy, a substantial lender-level data base is required. We can, however, get comparable (albeit somewhat less accurate) results using aggregated lender data if we assume that lender performance metrics are "normally" distributed. By this we mean that that the underlying data tends to be distributed around a central value with no significant bias above or below this central value.

Assume, for example, that the true distribution of lenders' direct margin for the retail channel is normally distributed with an average of 92.53 bps

and a standard deviation, a measure of how spread out the data is around the average, of 55.98 bps. Here is where the fun begins!

A common practice in statistics when dealing with normally distributed data is to "standardize" the distribution. Such standardizing facilitates both the understanding and decision-making with respect to the data.

The first step in standardizing is to convert the normal data values to "Z-scores" or "Standard-scores" that measure the distance of each data point from the average in terms of the number of standard deviations.

So, for example, consider a hypothetical lender that reports a retail direct margin of 148.56 bps. Assuming that the average margin of all lenders is 92.53 bps with a standard deviation of 55.98 bps, the Z-score for this lender would be:

$$\text{Z-score} = (148.56 - 92.53) / 55.98 = 1.0$$

This result tells us that this lender's retail direct margin is 1.0 standard deviation above the average. It also tells us that this lender's direct retail profitability is equal to or better than 84 percent of lenders. How do we know this? When we standardize or normalize the data, we find that for any normally distributed data, we can easily compute for any specific data value:

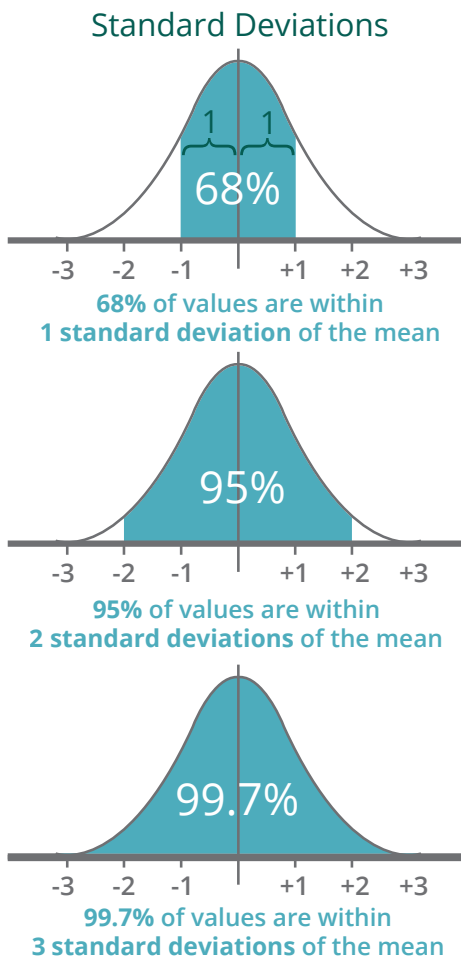
So, if a lender's Z-score is +1, we know that they are better than $50\% + \frac{1}{2} \times 68\% = 84\%$ of retail lenders. On the other hand, if their Z-score is -1, we know that they are better than $50\% - \frac{1}{2} \times 68\% = 16\%$ of retail lenders. Similarly, if their Z-score is +2, they are better than $50\% + \frac{1}{2} \times 95\% = 97.5\%$ of retail lenders.

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More generally, given the average and standard deviation of a normally distributed data set, we can, by converting the data to standardized scores, easily compute for any specific data value the percentage of data that is equal to or less than that value.



Direct Margin (bps)	Z-Score	Standard Normal CUM%	Actual CUM%
-120	(3.80)	0.01%	0.0%
-100	(3.44)	0.03%	2.20%
-80	(3.08)	0.10%	2.20%
-60	(2.72)	0.32%	2.20%
-40	(2.37)	0.90%	2.20%
-20	(2.01)	2.22%	2.20%
0	(1.65)	4.92%	5.60%
20	(1.30)	9.75%	8.90%
40	(.94)	17.40%	12.20%
60	(.58)	28.06%	22.20%
80	(.22)	41.14%	32.20%
100	0.13	55.31%	58.90%
120	0.49	68.82%	70.00%
140	0.85	80.18%	85.60%
160	1.21	88.60%	91.10%
180	1.56	94.099%	95.60%
200	1.92	97.26%	96.70%
220	2.28	98.86%	97.80%
240	2.63	99.58%	100.00%

The table above illustrates this conversion, assuming the underlying retail direct margin data is normally distributed. The first column contains direct margin values in bps; the second column converts these values to the equivalent Z-score using the assumed 92.53 bps average and 55.98 bps standard deviation of true underlying lender-level data set.

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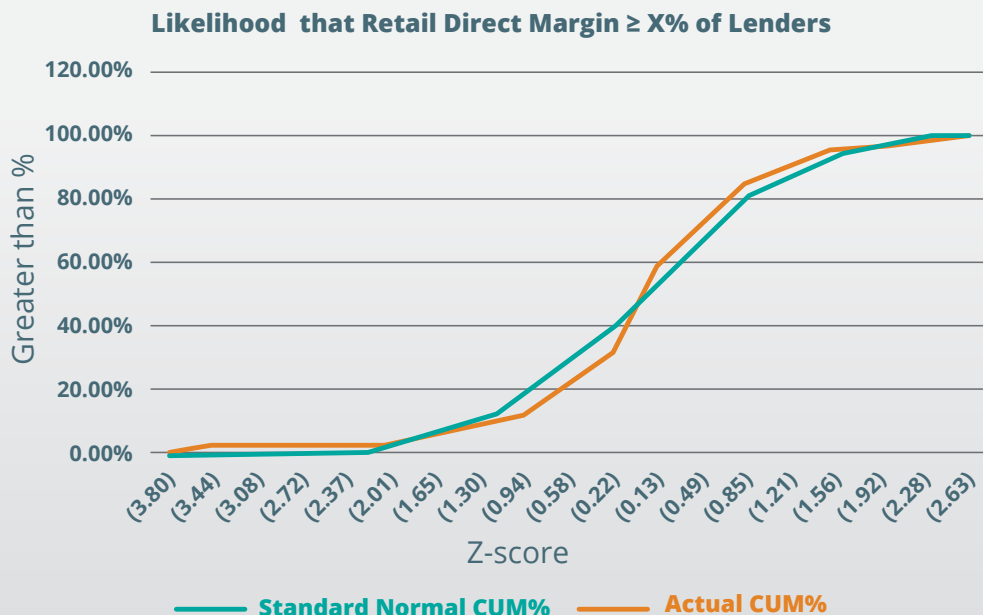
The next two columns display the cumulative percentage — the percent of lenders with a retail direct margin equal to or less than the direct margin value — for an assumed standard normal distribution of values versus the assumed actual distribution for underlying lender-level data.

So, for example, a lender with a retail direct margin of 100 bps is equal to or better than 58.90 percent of lenders based on the assumed actual lender-level data set versus 55.31 percent using the Standard Normal distribution with an assumed average of 92.53 bps and 55.98 bps standard deviation, a disparity of roughly 6 percent.

These same results are presented graphically in the chart below. While there are differences, we think you'll agree that the theoretical results obtained by

assuming the actual data is normally distributed are quite close to the actual results.

These results also suggest that we consider the Z-score as a new benchmarking metric for lender performance. Think, for example, how much more information is conveyed by saying that a lender's retail Z-score for its retail direct margin is 0.13 versus saying that it's retail direct margin is 100 bps. In the latter case, you don't know whether the lender's 100 bps margin is better or worse than average; and no way of knowing how much better or worse. On the other hand, a Z-score of 0.13 tells you not only that the lender's margin is better than average but also how much better. And, in this latter regard, the Z-score is a much more powerful indicator of comparative or competitive performance.



WE WELCOME YOUR FEEDBACK

We invite readers to give us feedback regarding the usefulness of this new approach to looking at lender performance. You can provide such feedback by contacting our Senior Partner, Jim Cameron, at jim.cameron@stratmorgroup.com. ■

Mortgage Metrics Matter



LOS FUNCTIONALITY RATINGS

INSIGHTS FROM THE LOS TECHNOLOGY INSIGHT SURVEY

STRATMOR's 2016 LOS Technology Insight Survey (TIS) captures and consolidates incisive information provided by more than 250 lenders regarding commercial-off-the-shelf (COTS) and proprietary Loan Origination Systems. The survey explores the scope of available functionality they provide, the degree of vendor support and the levels of their implementation success. Also, the survey captures lenders' perspectives on current and future mortgage technologies.

The LOS Technology Insight Survey measures:

- LOS Market Share
- Overall Satisfaction
- User Experience
- Implementation Experience
- Expenditures
- Required Resources
- Other Considerations

This information is vital to lenders considering the procurement of a new LOS or other mortgage technology, assessing the capabilities of their existing mortgage technology relative to competing systems and, in the context of Mergers & Acquisitions transactions, the capability and value of the buyer's or seller's technology.

Excerpts from the 2016 TIS Results

The 2016 TIS asked lenders to rank how effective their LOS was in providing functionality for fifteen (15) specific capabilities, using the following scale:

- Highly effective / competitively advantaged
- Adequately effective for our needs
- Somewhat ineffective / competitively disadvantaged
- Ineffective / of little practical benefit

The following are select results from the LOS Technology Insight Survey.

Q

How effectively does the LOS deliver compliance functionality?

A

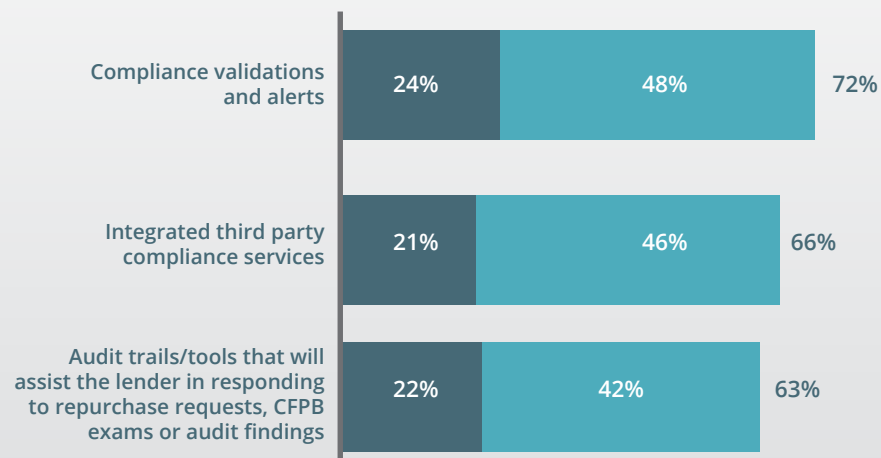
The compliance capabilities that were ranked were:

- Compliance validations and alerts
- Integrated third party compliance services
- Audit trails/tools that will assist the lender in responding to repurchase requests, CFPB exams or audit findings

The chart below plots the percentage of responses in the top two categories: Highly Effective and Adequately Effective.

Compliance Functionality Rating

■ Highly effective / competitively advantaged ■ Adequately effective



STRATMOR LOS Technology Insight Survey, 2016. ©STRATMOR Group, 2017.

- Less than 25 percent of the lenders indicated that the compliance tools in their LOS were Highly Effective and afforded them a competitive advantage.
- Between 40 and 50 percent of lenders rated the compliance functionality as Adequately Effective — hardly a ringing endorsement.

Mortgage Metrics Matter

LOS TECHNOLOGY INSIGHT SURVEY

Q

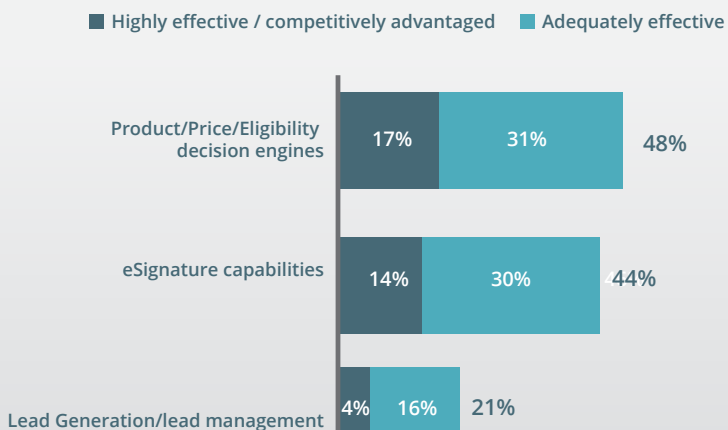
What functionality do lenders feel is most missing from their LOS?

A

The lowest functionality rating across all lender sizes, types and LOS were the following:

- Lead generation / lead management
- eSignature capabilities
- Product/Price/Eligibility decision engine

Lowest Rate Functionality



STRATMOR LOS Technology Insight Survey, 2016. ©STRATMOR Group, 2017.

- Lead generation/management was by far the lowest rated functionality.
- Only four percent of lenders indicated that their LOS provided highly effective lead generation capabilities; and with the market shift to more purchase business, the lack of lead management functionality will become even more important.
- Similarly, lenders gave low scores to both their LOS's built-in product, pricing and eligibility decisioning and eSignature functionalities.

Lenders Are Turning to Third Party Vendors

The clear implication here is that if LOS vendors do not actively improve these important functionalities, lenders will turn — indeed, are turning — to third-party vendors. Lacking the financial resources or technical talent to upgrade their built-in functionality, the strategy of some LOS vendors is to make it easy for lenders to interface their LOS with third-party vendors for select functionality.

Stronger LOS vendors, in addition to facilitating integration with third-party vendors, are also upgrading their built-in functionality in the belief that many lenders would prefer to deal with as few IT vendors as possible. If correct, they will have both a competitive advantage and a broader revenue base.

PARTICIPATE IN THE SURVEY BELOW

The 2017 LOS Technology Insight survey is now open for participation. If you are interested in participating, [click here](#). ■

Speaking Borrower Satisfaction



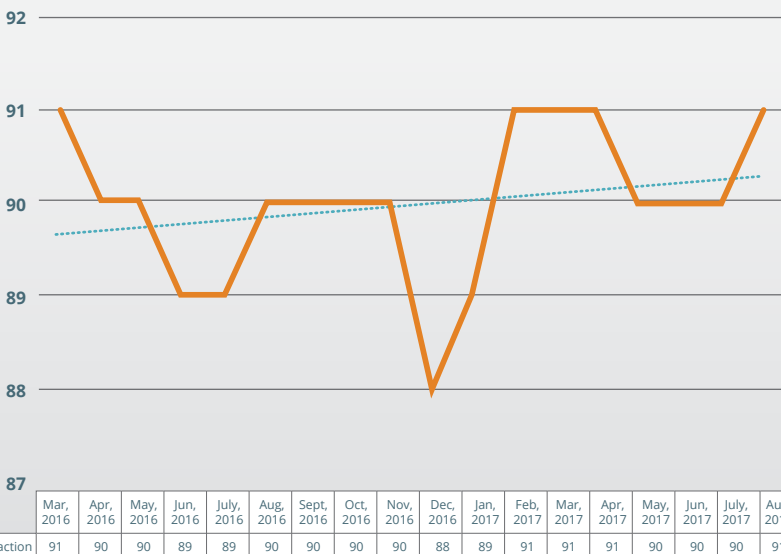
OVERVIEW

Each month's edition of *STRATMOR Insights* includes a *Speaking Borrower Satisfaction* section containing a National Borrower Satisfaction Index plus a Topic of The Month based on data collected by STRATMOR's MortgageSAT Borrower Satisfaction Program.

National Borrower Satisfaction Index

The National Borrower Satisfaction Index Chart below displays the Total Borrower Satisfaction Score for MortgageSAT participating lenders over an 18-month look-back period looking back from the August 2017 satisfaction score.

18-Month Satisfaction History



MortgageSAT, August 2017 ©STRATMOR Group, 2017.

Satisfaction Scores Dropped During Peak Months

As we can see from the chart, the satisfaction score during the peak home purchase/finance months in 2016 (March through July) dropped from a high of 91 in March to 89 in June and July. As we have noted in previous Insights issues, we believe that this fall-off reflects the increased volume that must be handled by back office personnel during the peak origination months, resulting in more processing errors and delays.

Over the same period during 2017, satisfaction for MortgageSAT lenders during the peak volume season has modestly improved, with satisfaction scores ranging from 90 to 91. And, as indicated by the dashed trend-line, MortgageSAT lenders are steadily — albeit slowly — improving their average satisfaction scores.

Speaking Borrower Satisfaction

WHAT BORROWER ATTRIBUTES AFFECT SATISFACTION? —PART III



As we noted last month, the flatness of the trend line hints at the possibility that satisfaction scores in the low 90s may represent an operational barrier that will only be breached if lenders deliver a top borrower origination experience every time. This may prove extraordinarily difficult since MortgageSAT data shows that any one of a handful of simple errors during the process can materially lower borrower satisfaction (see *The Seven Commandments for Achieving Borrower Satisfaction* in the [June issue](#) of *STRATMOR Insights*).

TOPIC OF THE MONTH — WHAT BORROWER ATTRIBUTES AFFECT SATISFACTION — PART III Satisfaction Versus Race/National Origin, Marital Status And Loan Amount

In the July issue of *STRATMOR Insights*, in the second of a three-part series addressing the extent to which borrower attributes affect satisfaction, we considered a borrower's monthly income, borrower status, e.g., first-time homebuyer, and residency status. This month, we look at satisfaction versus race/national origin, marital status and loan amount covering the period 1/1/2017 through 9/11/2017. While loan amount is not exactly a borrower characteristic, it is in some ways a proxy for a borrower's wealth that begs the question: Do larger loans get more and better attention?

Speaking Borrower Satisfaction

WHAT BORROWER ATTRIBUTES AFFECT SATISFACTION? —PART III



Q

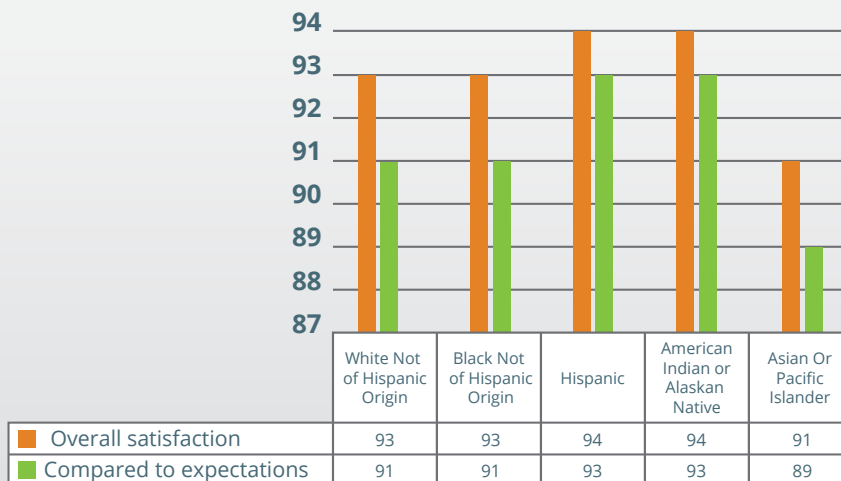
Does satisfaction vary with a borrower's race or national origin?

A

Hardly at all. In general, borrower satisfaction is relatively independent of a borrower's race or national origin.

- Differences in satisfaction scores fall into a narrow band between 93 and 94 (excellent scores) except for Asians or Pacific Islanders who scored their satisfaction at 91.
- Hispanic borrowers recorded a satisfaction score of 94, the highest among all race and ethnic groups considered.

Satisfaction vs. Race National Origin



MortgageSAT, August 2017 ©STRATMOR Group, 2017.

Speaking Borrower Satisfaction

WHAT BORROWER ATTRIBUTES AFFECT SATISFACTION?
—PART III



Q

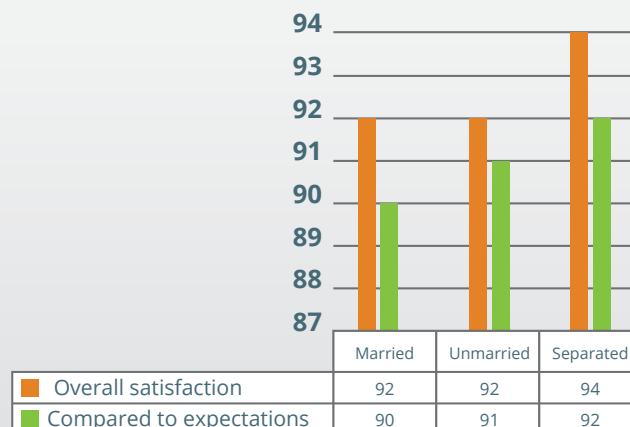
Does satisfaction vary with marital status?

A

Overall satisfaction did not vary between married and unmarried borrowers.

- Both segments recorded an overall satisfaction score of 92.
- Curiously, borrowers who are separated recorded overall satisfaction of 94. One might expect that borrowers undergoing the stress of marital separation would be less tolerant of the stresses associated with getting a mortgage, but, apparently not.
- None of these results varied by gender.

Satisfaction vs. Marital Status



MortgageSAT, August 2017 ©STRATMOR Group, 2017.

Speaking Borrower Satisfaction

WHAT BORROWER ATTRIBUTES AFFECT SATISFACTION?

—PART III

Q

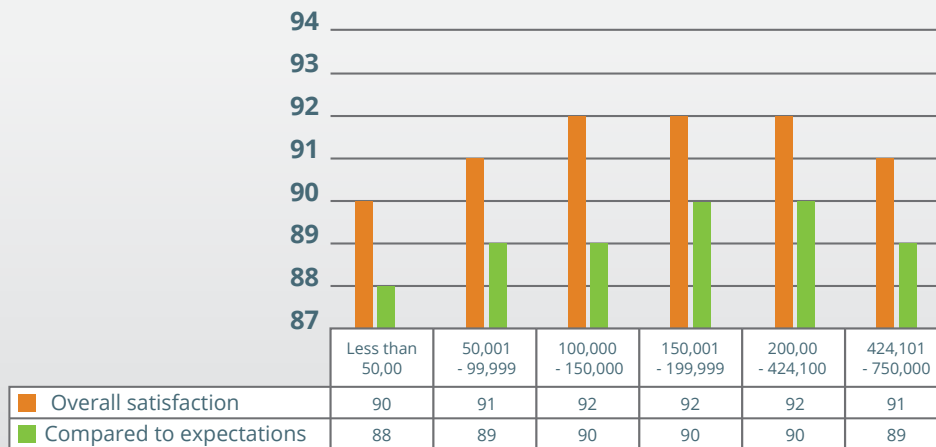
Does borrower satisfaction vary with loan amount?

A

With more loan originator commission and lender profit at stake, one might expect that larger loans would receive substantially more attention and service than smaller balance loans

- While there is some evidence of this for loan amounts under \$100,000, borrower satisfaction for loans ranging from \$100,000 up to the conforming loan limit of \$424,000 is virtually constant at a score of 92.
- Beyond \$424,000, satisfaction drops to 91, suggesting perhaps that borrowers seeking larger loans expect better service.

Satisfaction vs. Loan Amount



MortgageSAT, August 2017 ©STRATMOR Group, 2017.

Satisfaction Scores Do Not Vary Based On Borrower Attributes

Similar to the June and July results regarding satisfaction versus various borrower attributes, the above results suggest that mortgage lenders treat all borrowers much the same, resulting in borrower satisfaction scores that do not vary materially based on borrower attributes.

But we must again point out that MortgageSAT results consider only borrowers whose loans have closed. Borrowers who withdrew their application because they either felt mistreated, were unhappy with service they received, or simply selected a different lender are not reflected in the results.

If you are interested in learning more about STRATMOR's *MortgageSAT Borrower Satisfaction Program*, [click here](#). Or reach out directly to Mike Seminari, Director of MortgageSAT, at 614.284.4030 or mike.seminari@stratmorgroup.com ■



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TELL US YOUR THOUGHTS

We invite you to take a quick 2 question survey so that we can continue to provide you with valuable information in our *STRATMOR Insights* report.

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