

# 2020 VantageScore Model Performance Assessment



## Contents

2020 VantageScore Model Performance Assessment	1	VantageScore Solutions, as part of its mission, conducts annual performance assessments of VantageScore credit score models at each of the credit reporting companies (CRCs) - Experian, Equifax and TransUnion. To promote transparency and aid in model governance, VantageScore Solutions publishes the results of these assessments annually, along with updated odds/performance charts.
2020 Report Highlights	2	
Score Performance – Mainstream Consumers	2	VantageScore Solutions' analysis is executed in the spirit of the regulatory guidance encouraging lenders to validate models on a frequent basis. Indeed, the Office of the Comptroller of the Currency (OCC) stated in its 2011 guidance that "rigorous model validation plays a critical role in model risk management."
Industry Results	3	
Score Performance – Newly Scored Consumers	4	This 2020 report represents the third annual model performance assessment of VantageScore 4.0 (which was launched in April 2017). The model is the first and only tri-bureau credit scoring model to incorporate for superior performance both trended credit data and leverage machine learning. Trended credit data supplements the static borrowing and payment activity which has been historically recorded in consumer credit files and used to develop risk models. Trended credit data captures the trajectory of borrower behaviors over time, thereby allowing additional insights into consumers' credit risk profile. As part of the annual assessment, VantageScore 4.0 performance results are compared to the performance results of credit scoring models that were developed earlier and contain only static credit attributes.
Score Consistency	5	
Statistical Bias Testing – Ethnicity	7	
Conclusions	8	VantageScore 4.0 also scores approximately 40 million consumers who cannot obtain credit scores when conventional scoring models are used. Machine learning techniques were utilized in the development of scorecards for this "Newly Scored" segment. During the annual assessment, performance of the model in this segment is compared with that of the earlier VantageScore 3.0 model.





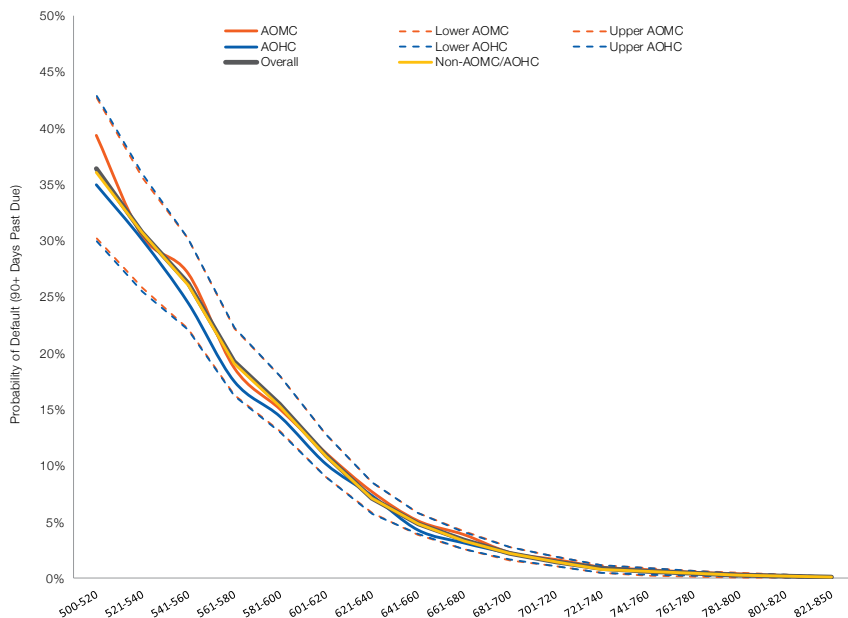








**Figure 15 – Statistical Bias: First Mortgage Default Profiles by Ethnicity with Confidence Intervals**



## CONCLUSIONS

The 2020 annual model performance assessment of VantageScore 4.0 has shown a continued material benefit from the use of the model when compared to benchmark credit scoring models in the key areas most associated with performance: predictiveness, universe expansion, and consistency. This benefit was found in both the account origination and account management functions. VantageScore 4.0 provides significant performance benefits through the use of trended data for mainstream consumers and through the use of newly designed machine learning attributes for non-mainstream consumers. In both settings VantageScore 4.0 continues to outperform all earlier VantageScore models.

Although lenders should independently validate models based on their own portfolios and strategies in accordance with the OCC guidelines and also conduct regular model performance assessments, those who use the VantageScore 4.0 model in their decision-making processes can have confidence in the model’s best-in-class performance and most comprehensive use of data available on consumers’ credit files.

VantageScore models are licensed to the three major CRCs, Equifax, Experian, and TransUnion, who each in turn calculate, market and sell credit scores. Lenders and other commercial entities interested in learning more about the VantageScore models may contact one of the CRCs listed to the right for additional assistance.

The VantageScore credit score models are sold and marketed only through individual licensing arrangements with the three major credit reporting companies (CRCs): Equifax, Experian and TransUnion. Lenders and other commercial entities interested in learning more about the VantageScore credit score models, including the VantageScore 4.0 credit score model, may contact one of the following CRCs listed for additional assistance:

VantageScore  
 April 2020  
 Copyright © 2020  
 VantageScore Solutions, LLC.  
[www.vantagescore.com](http://www.vantagescore.com)



Call 1-888-202-4025  
<http://VantageScore.com/Equifax>



Call 1-888-414-4025  
<http://VantageScore.com/Experian>



Call 1-866-922-2100  
<http://VantageScore.com/TransUnion>