



WHITE PAPER

# Using Presumptive Analytics for Your Financial Assistance Policy:

A TransUnion data accuracy study

## Introduction

Recent regulations passed under the Affordable Care Act will significantly impact healthcare providers' financial assistance practices regarding the screening and approval of financial assistance for patients. Section 501(r) of the Internal Revenue Code, which took effect on January 1, 2016, requires that not-for-profit hospitals accurately document financial assistance determinations. Additionally, it clarified and expanded the use of **presumptive eligibility** in the evaluation of specific patients for financial assistance.

The Federal Poverty Guidelines, released each year, establish the Federal Poverty Level (FPL) thresholds, which represent the metric commonly used by hospitals to determine if patients qualify for financial assistance or government programs. A patient's income level is applied against the household income and family size brackets in the federal poverty levels, and financial assistance is typically determined from those levels. Historically, income estimates were used as a way to verify patients' self-reported financial data. If there was a significant discrepancy between the patient's attested data and the estimated FPL percentage levels (FPL%), the hospital would require additional financial proof.

Under **presumptive eligibility**, as clarified within the context of the 501(r) regulations, healthcare providers may now use third-party information to estimate household income to assist in financial assistance eligibility determinations for patients who do not provide documented proof of their financial status.

For more than 10 years, TransUnion has provided independent, objective estimates of household income and size to apply against the FPL%. This affords healthcare providers the ability to use a reliable dataset, along with their internal policies and procedures, in financial assistance determinations. Given the recent clarification of presumptive eligibility rules under the 501(r) regulations, the need for highly reliable household size and income datasets for the FPL% estimates is critical.

Third party data vendors have historically relied on credit report information to provide estimates of household size and income for FPL%. Credit-based estimates are extremely accurate for adults who borrow more frequently, but less precise for individuals with limited credit files due to a lack of financial history. Indigent patients, for example, often have limited financial resources and credit histories, making it difficult to generate an accurate estimate of income to apply an appropriate FPL%.

In order to help providers more accurately predict household size and income and categorize the results into FPL%, TransUnion developed a community-based financial aid model that complements the more traditional credit-based models. TransUnion's community-based model relies on a number of datasets, including public records, such as neighborhood and demographic data. The result is a multi-source model for estimating income and family size that facilitates a reliable and objective method for determining a patient's eligibility for financial assistance or government programs based off estimated FPL%.

This white paper outlines the data, methodology, and results from a recent in-depth study of TransUnion's financial assistance models to demonstrate how these tools reliably estimate household income and family size for financial assistance determinations.

**Presumptive eligibility, as defined within the 501(r) Regulations, now gives healthcare providers the ability to use third party information to determine charity care eligibility for patients who do not provide documented proof of their financial status.**



### **Purpose**

The purpose of this study is to compare TransUnion's community-based and credit-based models for calculating a patient's FPL%. In doing so, it will demonstrate the reliability of both models, and when used together, to presumptively estimate household income and family size for financial assistance determinations under a provider's policy and procedures.

### **Data**

The dataset used in the study was comprised of 50 facilities across the United States and 105,000 individual patients, and included both approved and denied financial assistance application submissions. This data was refined to exclude applications that did not include self-reported financial and household information, as well as full address and demographic data. The 2016 [Federal Poverty Guidelines](#) were used to convert household income and household size into FPL%. Finally, subjects with an estimated FPL% equal to 0% or greater than 500% of FPL, based on income level, were also excluded in order to objectively compare the two models.

### **Hypothesis**

FPL estimations using credit-based models frequently categorize indigent patients as 100% eligible for financial assistance because they have limited credit history files and lower socio-economic status. TransUnion theorized that by supplementing credit-

based models with community-based datasets when credit files were "thin" or non-existent, the reliability of the accuracy of the FPL% determination would increase. Conversely, patients with incomes greater than 400% FPL likely have an ability to pay and report incomes that are closely correlated to the stated income (or above) on the Financial Assistance Application.

### **Analytic Approach**

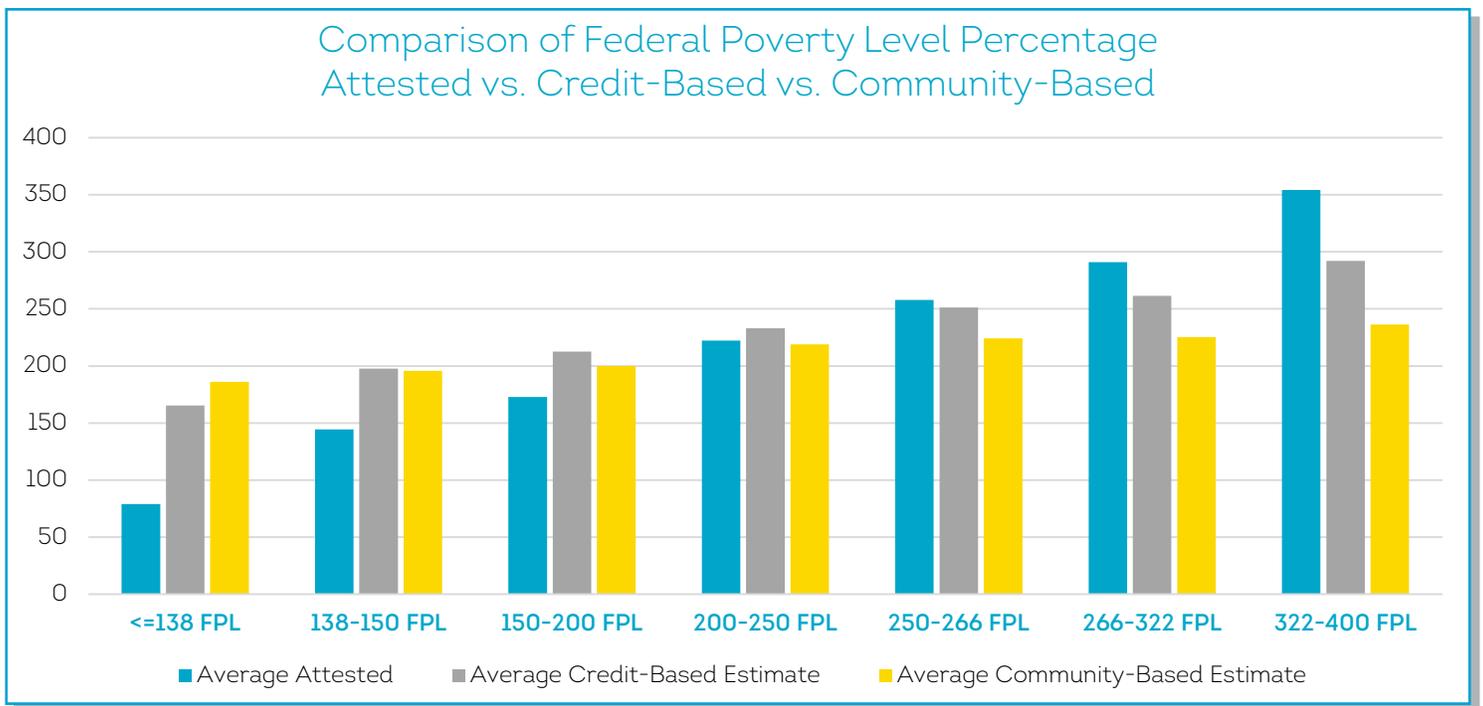
1. TransUnion compiled average and standard deviation statistics on FPL for each of the models, credit-based and community-based.
2. Using the average and standard deviation results, TransUnion calculated the ranges at the one and two standard deviation level, which correlated with normal population distributions of 68% and 95% respectively.
3. Expanding on these distributions for both credit models and community-based models, the overlap in the population distribution curves was calculated to compare the reliability of the two models.
4. Finally, in order to compare the trend of average FPL% scores with attested values, TransUnion analyzed and displayed the average attested, credit-based, and community-based FPL percentages, segmented into the program eligibility tiers recommended by CMS.

## Findings

The study confirmed that credit-based FPL% scores in the range of 50-338% FPL (2 standard deviations, or approximately 95% of the population), and community-based FPL scores fall within the same FPL% range **98.4%** of the time. Furthermore, the average FPL percentage was 187% and 194% for credit-based and community-based models, respectively, indicative of a 3.8% negligible variance for the 0-500% range used in the study.

In the graph below, the average FPL% values are plotted against the tiered segments based on common public and provider based financial assistance thresholds, where the average community-based

values are observed to be well within the average credit-based values up to 322% of FPL. Above this threshold, some separation in average FPL values is observed, including those of the attested values, indicating a transition area where presumptive financial assistance methods could be reinforced with financial counseling and supporting documentation. The results also reflected increasing attested income levels as the FPL% increases, which points to the increased availability to disposable income at higher income levels as reported by the patients. The results also confirm that the estimated community-based FPL% scores remain reliable for the given population of 105,000 patients within two standard deviations.



## Conclusion

Determining a patient's ability to pay is imperative for success in appropriate financial assistance determinations, patient collection placements and 501(r) compliance. Cost-shifting trends with high deductible health plans and climbing premiums have transitioned financial liabilities from the payer to the patient. This has amplified the need for readily available and highly reliable datasets for estimating income. Using presumptive eligibility data to ensure financial assistance policies are applied appropriately to the patient's unique financial situation will ensure providers have the tools to reliably and efficiently screen for financial assistance. Additionally, under 501(r), presumptive eligibility affords healthcare providers the ability to rapidly segment their patients into financial assistance and payment programs. In scenarios where credit history is insufficient, third party scoring models used for predicting a patient's FPL% should not rely on a single data source, but instead use multiple data sources to yield the most reliable FPL% estimates. Additionally, when combined with a healthcare organization's financial assistance policies, these models provide a consistent, unbiased, and efficient dataset to help providers more accurately perform financial assistance determinations.

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