First American
DATA & ANALYTICS

Fraud is Changing and So Must Fraud Detection

By First American Data & Analytics

Fraud Detection

For the past decade, robust underwriting processes and the widespread use of alert-based fraud solutions have successfully worked together to reduce the incidence of mortgage fraud and early payment default (EPD).

However, housing market conditions are changing in ways that may increase fraud risk and fraud schemes are becoming increasingly sophisticated, with fraudsters falsifying employment, income, property occupancy and identities. Synthetic identity schemes, which historically have not been as common in mortgage lending, are now the fastest growing category of financial crimes and must be considered a threat across all lending segments. [source: AITE Group]

In addition to confronting fraud schemes of growing complexity, lenders face the difficult challenge of balancing effective risk management with operational efficiency. This balance becomes increasingly challenging to maintain for large volume lenders.

In response to this, First American® Data & Analytics has developed its AppIntelligence Score™ fraud detection solution, a first-of-its-kind, pattern recognition tool for the mortgage industry that leverages artificial intelligence and machine learning. Designed for large lenders and investors, the new solution scores loans for fraud, EPD and repurchase risk, helping lenders to better target their review efforts and dramatically reduce the false positives associated with alert-based solutions.

Moreover, the models behind this new solution have been trained to identify many new and evolving patterns of fraud, such as synthetic identity, credit washing and employment fraud, as well as schemes that have occurred in other financial sectors, including auto lending, credit cards and personal lending. AppIntelligence Score is in a position to help identify these new schemes as they spread into the mortgage space.

Fraud Poised to Rise Again

The ingredients for rising fraud risk are all there. The mortgage market is shifting from predominantly lower risk refinance transactions to a greater share of higher risk purchase transactions. Low rates and tight inventory are fueling house price appreciation at a double-digit, year-over-year pace, and the size of the average mortgage hit a new high in 2020. So, pressure is rising for both home buyers and single-family residential investors, creating an environment ripe for increasing fraud.

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Financing for second homes and investment properties is more difficult to qualify for, and incurs higher rates and fees, than financing for primary residences, which increases the risk of occupancy misrepresentation. At the same time, many people are also embracing remote work arrangements in far-flung locations that historically trigger questionable owner-occupancy flags. These dynamics make discerning a borrower's true intention more challenging.

Meanwhile, the Mortgage Bankers Association's 2021 forecast calls for a steep drop in refinances, a steady rise in purchases and an overall market contraction of approximately 16 percent [source: MBA Forecast]. Having added capacity to handle last year's volume, many lenders and mortgage brokers will now be chasing share in an overall smaller market. This type of market could lead to greater potential for falsified employment, and misrepresentation of income and/or occupancy.

Finally, the difficulty gig economy workers have in proving income and the growing sophistication of synthetic identity fraudsters further contributes to a rising fraud risk outlook.

New Fraud Schemes in Mortgage Lending

Synthetic identity fraud cost lenders approximately $1.9 billion a year in 2020 and is expected to rise to $2.6 billion over the next two years [source: AITE Group]. To date, most of the synthetic fraud-for-profit activity has occurred in the credit card and auto loan sectors. Mortgage lending, for the most part, hasn't been targeted because of the complexity of the transactions, the documentation required and the multiple layers of identity checking in the mortgage application process. Yet, the threat is growing, partially due to the unique set of economic conditions created by the pandemic. In the past year, millions of workers lost their jobs or were furloughed. At the same time, government assistance, stimulus checks and the Paycheck Protection Program distributed billions of dollars to consumers, creating temporary cash flow. In some cases, recipients were collecting even more money than they were earning in their current or previous jobs [source: The Wall Street Journal].

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Most of this money was used as it was intended: to cushion consumers from the financial distress caused by COVID-19. However, federal law enforcement has investigated and charged individuals for using Paycheck Protection Program (PPP) funds to secure financing to buy homes, and also buy expensive cars and jewelry [source: The United States Department of Justice]. To apply for these PPP loans, fraudsters have to falsify records, including income and the number of people they employ, and may create synthetic identities as part of the attempted fraud.

Credit washing is another form of fraud growing at an alarming rate, and one that mortgage lenders are beginning to encounter. Credit washing occurs when consumers engage a credit repair agency and dispute everything in the credit bureau's records that has been charged off or defaulted, then claim it wasn't their account. Credit agencies are vigilant in trying to identify credit washing, but it can be difficult to detect. Once fraudsters get those items removed, their credit scores increase, and the fraudsters may then be able to qualify for a loan or a mortgage.

As noted, synthetic identity schemes are still relatively new in the mortgage industry, so they are less likely to be detected by traditional fraud tools. In addition to synthetic identity and credit washing, lenders may start to see an uptick in other types of fraud, such as the use of fake employers and forged income documentation.

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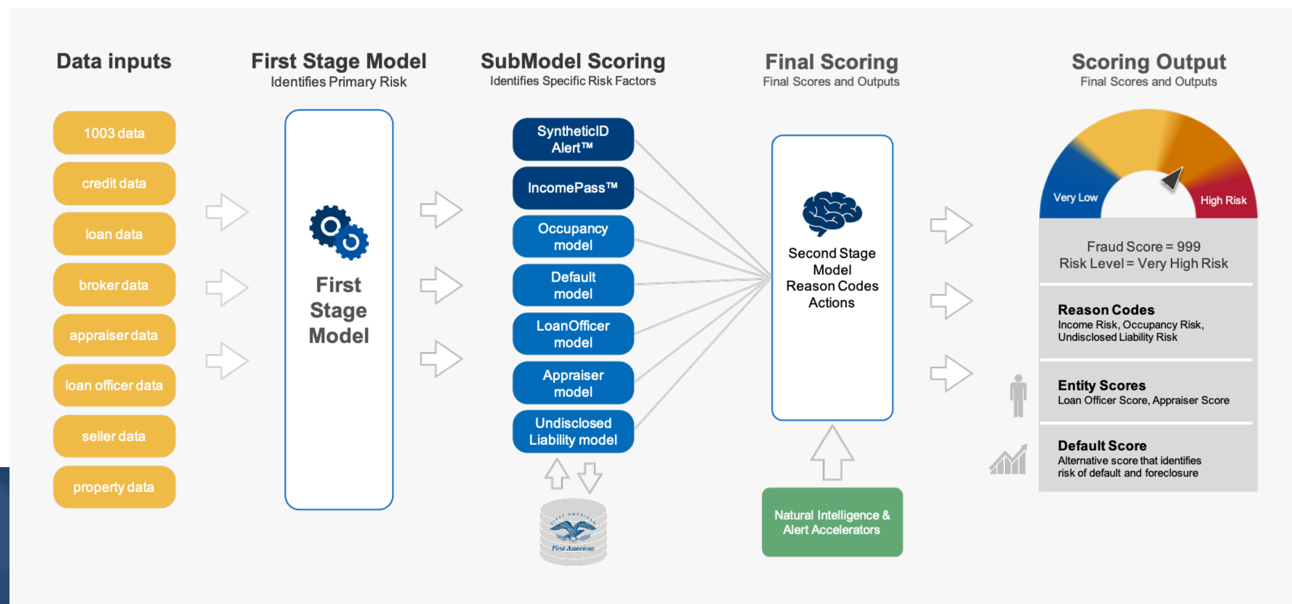
Exposed to Synthetic Identity Fraud and Fueled by Analysis of Underwriter Actions

AppIntelligence Score detects fraud and misrepresentation by running several proprietary sub-models: synthetic identity, income, employment, occupancy, EPD, third-party risk and undisclosed liabilities. The AppIntelligence Score models have been trained to identify the patterns of synthetic identity fraud that are common in non-mortgage lending categories. The models are also powered by First American proprietary and consortium mortgage fraud data, which includes more than 7.6 million fraud alerts. Those alerts were analyzed to see how the underwriters responded to them – what was cleared, what was escalated, what was predictive of fraud and what wasn't. Those findings were fed back into the AppIntelligence Score model to generate a fraud risk score on a scale of 1 to 999, helping predict which loans within a lender's portfolios or pipelines have the greatest fraud risk.

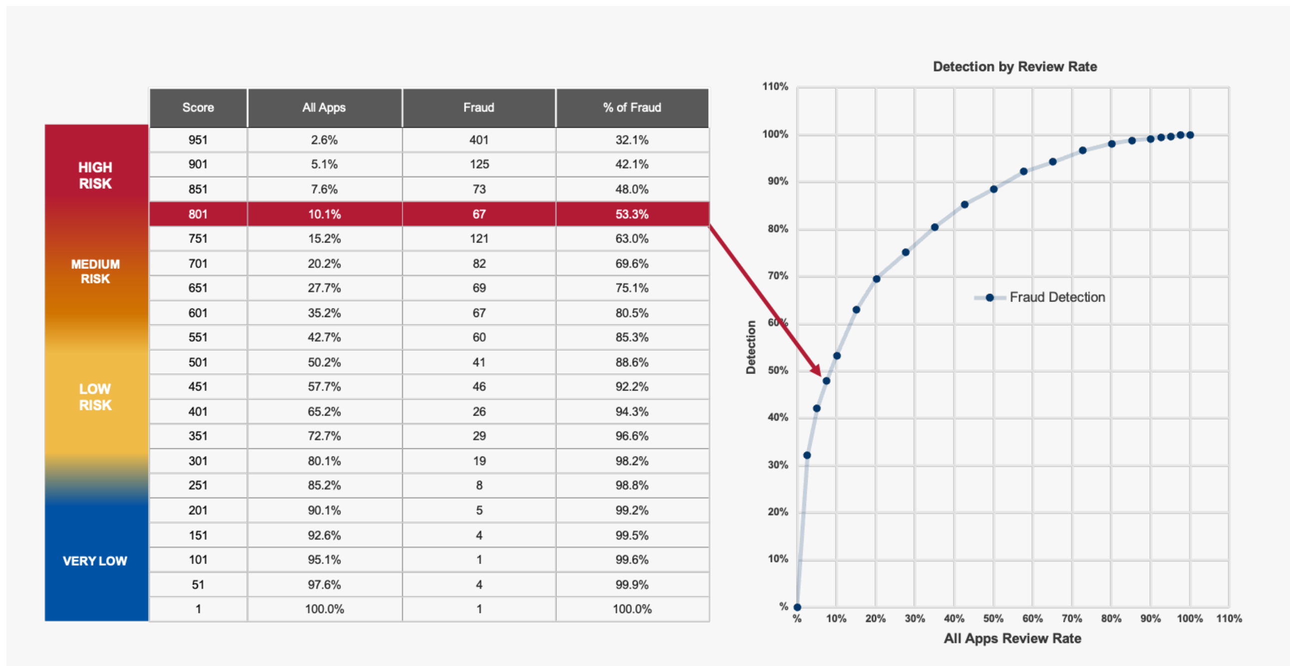
To demonstrate the effectiveness of AppIntelligence Score, the model recently evaluated a portfolio of approximately 200,000 loans. The loans that scored the highest for fraud risk, about 10 percent of total application volume, accounted for 53 percent of the fraud risk and 55 percent of the EPD risk.



Reducing False Positives

In-workflow alert tools are effective in detecting common fraud schemes, but they are also designed to detect compliance risk and data integrity issues during loan origination. As a result, they are geared to be sensitive to certain variables and may generate higher levels of false positives, creating unnecessary loan reviews.

To take great caution, lenders may prefer to have all the alerts turned on within their fraud risk tool. An in-workflow alert tool calibrated to have all alerts turned on could potentially fire at least one low-risk alert on 60 percent to 70 percent of all applications. While some alerts for low-impact variances may not warrant review, others may be warning of a real issue.



Score	All Apps	Fraud	% of Fraud
951	2.6%	401	32.1%
901	5.1%	125	42.1%
851	7.6%	73	48.0%
801	10.1%	67	53.3%
751	15.2%	121	63.0%
701	20.2%	82	69.6%
651	27.7%	69	75.1%
601	35.2%	67	80.5%
551	42.7%	60	85.3%
501	50.2%	41	88.6%
451	57.7%	46	92.2%
401	65.2%	26	94.3%
351	72.7%	29	96.6%
301	80.1%	19	98.2%
251	85.2%	8	98.8%
201	90.1%	5	99.2%
151	92.6%	4	99.5%
101	95.1%	1	99.6%
51	97.6%	4	99.9%
1	100.0%	1	100.0%

Some large lenders are integrating AppIntelligence Score with the First American alert-based FraudGuard® solution. Using a score-based solution alongside an alert-based solution allows lenders to test for compliance and data integrity issues on a platform they are accustomed to, while detecting fraud and EPD risk with fewer reviews. For example, one large national lender recently reduced overall reviews by 43 percent using this integrated approach.

Consider a lender originating 5,000 loans per month and manually reviewing 30 percent of applications. It may take an underwriter up to 20-30 minutes to clear an alert (or multiple alerts) on an application, depending on the complexity of the item on the application flagged by the alert. The reviews could consume more than 500 underwriting hours per month. If only 10 percent of the loans had to be reviewed, the reviews would require only 166 hours.

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	Alert Description	Lift Factor	Review Rate	Detection Rate	False Positives
Predictive	SELLER name includes "LLC" and appears to be an entity, not an individual	33	0.004%	0.12%	4
Less Predictive	Investment Property Purchase	21	0.05%	0.2%	1544:1

Cut Review Time in Half

While many lenders choose to review all alerts, they recognize that false positives can slow origination processes, increase lender costs and, over time, reduce user confidence. Because of this, some large lenders are looking for fraud solutions that can scale to their needs and reduce review samples to the 3 percent to 5 percent range to accelerate origination processes and decrease costs.

AppIntelligence Score provides a high level of fraud detection, focuses reviews on the loans with the highest risk profiles and allows lenders to confidently review only a small sample of their production portfolio. Using AppIntelligence Score, most high-volume lenders will be able to cut their review time, and costs, in half.

More predictive, more efficient fraud solutions, like AppIntelligence Score, will help lenders concentrate their efforts on the most-at-risk loans, combat traditional and synthetic fraud schemes, and rapidly adjust to changing market dynamics.

"Using AppIntelligence Score, most high-volume lenders will be able to cut their review time, and costs, in half."

Sources

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