

# Top Card Issuers Partners with BioCatch to Protect Senior Citizens from Fraud and Saving Millions

## Problem

An aggregate of data from leading card issuers found that up to 40% of fraudulent credit card applications had a declared age of 60+. At the same time it was discovered that genuine applicants in this age group were disproportionately burdened with additional steps of validation.

## Solution

These card issuers turned to BioCatch, working closely to develop a behavioral solution to fight account opening fraud and identity theft targeting the elderly. A key requirement to success would require a solution that would increase fraud detection and improve the onboarding experience for senior customers.

## Results

**20%**

Uplift in account opening detection at the highest risk level (1000)

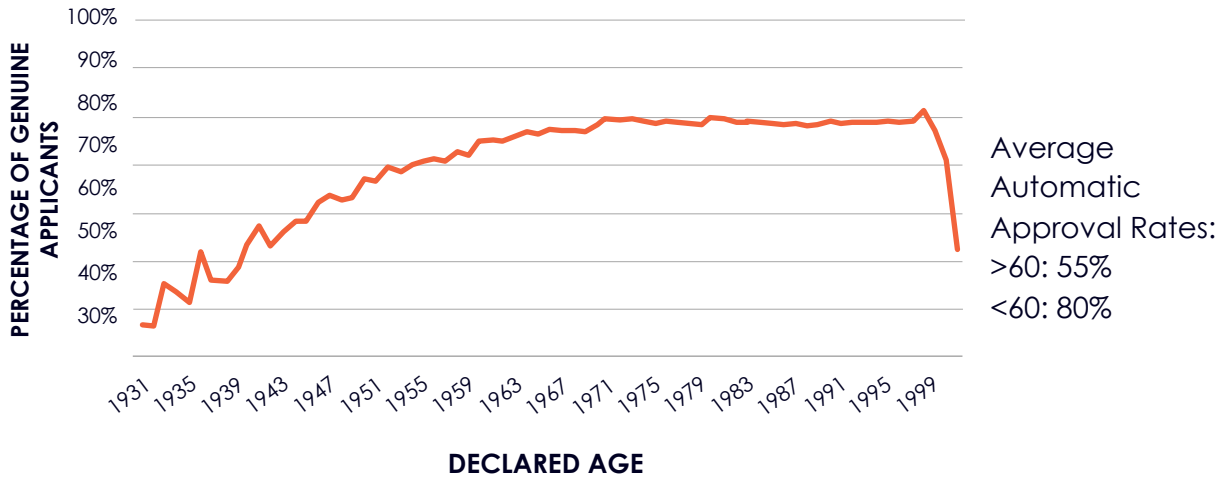
**\$3.5M**

Return on investment based on reduced fraud losses, operational cost savings, and new revenue for one of the card issuers.

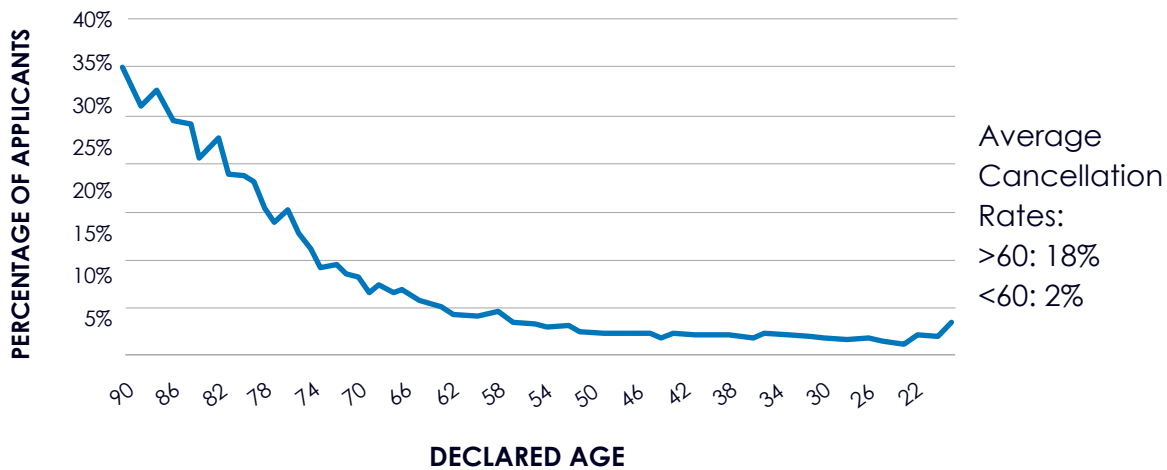
There was a need to protect senior citizens from fraud and identity theft across multiple credit card issuers. Through aggregating data across leading card issuers, it was confirmed that 40% of confirmed fraudulent credit card applications had a declared age of 60+. Further analysis showed that the onboarding of new accounts in this age group had a higher likelihood of requiring additional verification steps. This created a high-friction onboarding process and resulted in a large number of abandoned applications and lower customer satisfaction.

A common practice for these credit issuers was to subject applicants, not automatically approved, to go through a manual review and follow up process. While this process is used to vet potentially high-risk applicants, it led to a high number of abandoned or cancelled applications. Issuers needed better protections addressing elder fraud without creating additional steps for genuine elder applicants.

### Automatic Approvals Per Declared Age



### Application Cancellations Per Declared Age



## Using Age-related Features to Combat Elder Fraud

With cybercriminals disproportionately targeting seniors, card issuers partnered with BioCatch to develop a cutting-edge age analysis capability as part of its Account Opening Protection solution to further increase fraud detection and improve the customer onboarding experience.

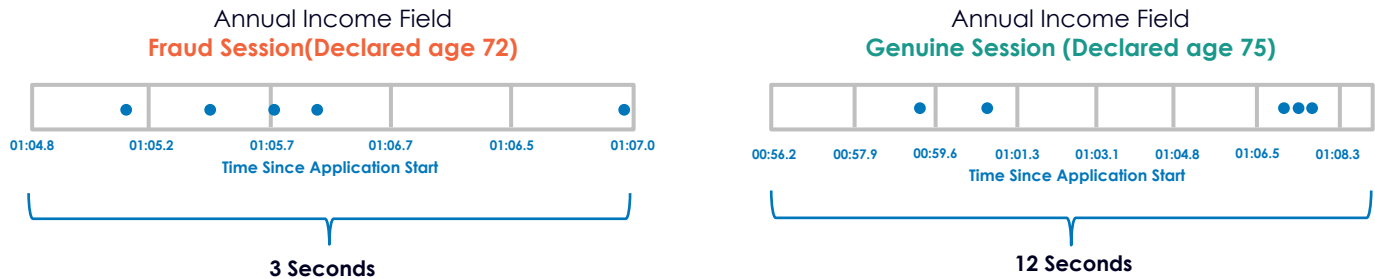
The BioCatch solution extracts physical, cognitive, and other age-related characteristics as the user naturally interacts with the account opening application. By continuously monitoring an account opening session, the BioCatch age analysis solution predicts the user's approximate behavioral age and compares it to the declared age on the application. In the event anomalies are surfaced, the BioCatch risk score will be impacted accordingly.

Some behavioral patterns shift with age, such as the time required to shift from the Control key to a letter key during data input, mouse click duration, mobile device orientation preferences, and swipe events. By closely assessing certain age-related factors, the BioCatch solution is further optimized to identify high-risk applications where the declared age is 60+.

## Age Analysis in Action

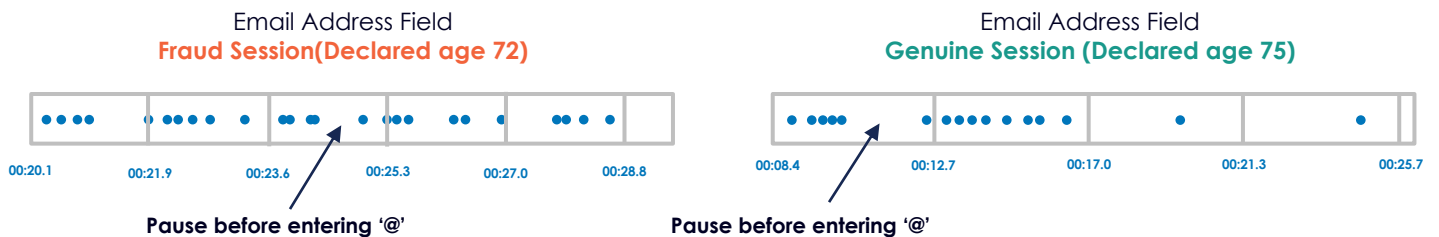
Let's take a closer look at a fraudulent account opening session identified by BioCatch using age analysis. In this case, the applicant's declared age was 72, but their behavior suggested otherwise. BioCatch was the only solution among this credit issuer's fraud technology stack to flag this application as high risk.

### Timing Anomalies



In the **fraud session (declared age 72)**, the user spends a mere three seconds inputting their annual income which is abnormal for the genuine population where the declared age is over 70. For example, in a **genuine session (declared age 75)**, the user spent 12 seconds on the income field.

### Abnormal Typing Cadence

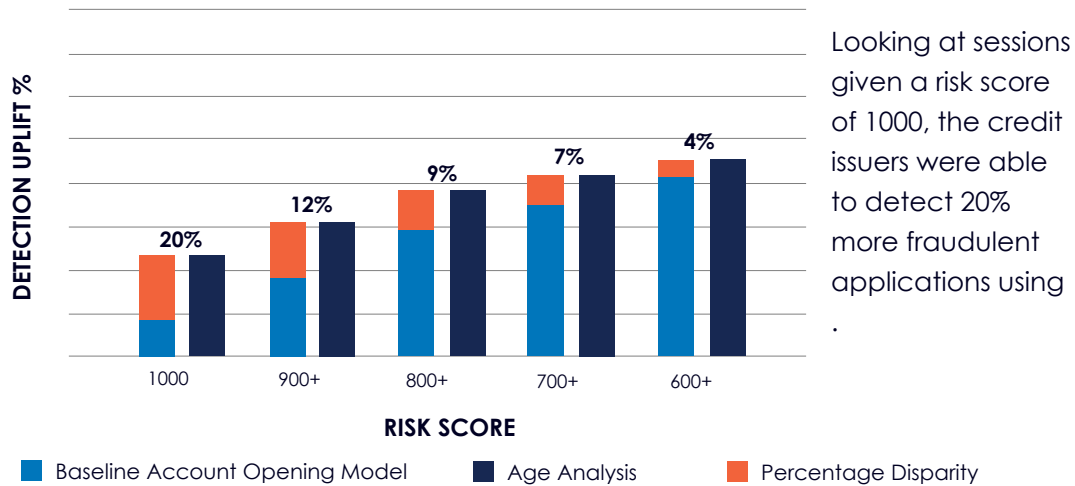


In the **fraud session (declared age 72)**, the user exhibits subtle pauses between key press events and inputs their email address within 17 seconds; however, in a genuine example (**declared age 75**), the user displays significant pauses especially prior to entering a special character and completes the field within 25 seconds.

### Increasing Account Opening Fraud Detection

After implementing BioCatch age analysis, issuers experienced an increase in overall account opening fraud detection beyond what was already detected by BioCatch's Account Opening baseline model. Taking into consideration the sessions that were given the highest possible risk score (level 1000), they were able to detect a collective 20% more fraudulent applications at this level alone while maintaining a low false positive rate of 0.5%.

### Age Analysis Detection Uplift



### Realizing Return on Investment

Using the BioCatch Age Analysis solution, issuers gained greater visibility into which applications were high versus low risk. This helped to increase confidence on automatic or acceptance or decline decisions. This led to a decrease in the number of applications that required manual review and consequential cancellations.

After incorporating age-related features into the BioCatch Account Opening detection models, issuers realized massive returns on their investment based on a reduction in fraud losses, operational cost savings, and additional revenue. One issuer realized a \$3.5M return on their investment.



BioCatch is the leader in Behavioral Biometrics which analyzes an online user's physical and cognitive digital behavior to protect individuals and their assets. Our mission is to unlock the power of behavior and deliver actionable insights to create a digital world where identity, trust and ease seamlessly co-exist. Leading financial institutions around the globe use BioCatch to more effectively fight fraud, drive digital transformation and accelerate business growth. With over a decade of analyzing data, over 60 patents and unparalleled experience, BioCatch continues to innovate to solve tomorrow's problems. For more information, please visit [www.biocatch.com](http://www.biocatch.com)

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