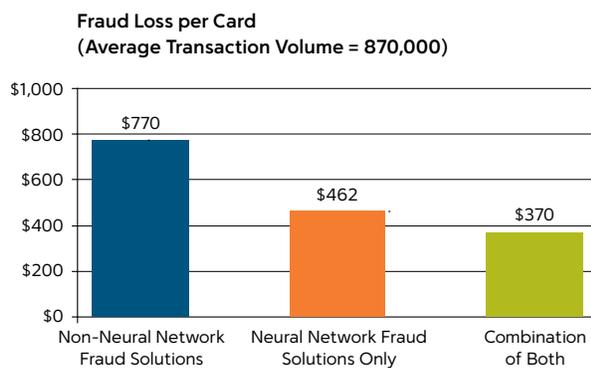


# New Technologies in Fraud Prevention a Worthy Investment

As one of the largest processors of payment transactions in the world, First Data is in the unique position to identify emerging trends in debit card transaction fraud. In February 2009 we conducted an analysis of 2008 reported fraud instances to discover how debit transactions are being affected by fraud and which solutions work best to detect and prevent fraudulent activity. The results demonstrate that, with the right tools in place, it is possible to substantially lower fraud loss.

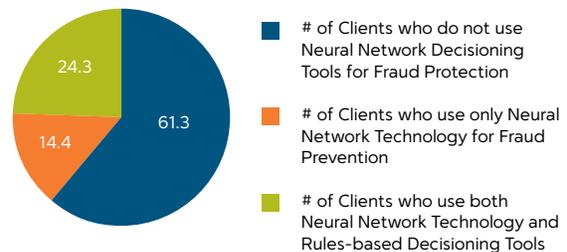
The analysis tracked three categories of debit accounts; those using no neural network-based fraud detection solutions, those using only a neural network solution and accounts protected by both neural network and rules-based decisioning tools. Below is a summary of our findings:



When we looked at the success rates of each method, we discovered that neural network programs are detecting fraudulent transactions earlier, enabling rapid intervention and resulting in 40% lower loss per card than when no neural network solution is deployed.

Furthermore, customers using a combination of neural network and rules-based decisioning enjoyed an additional 23% reduction in cost per instance of fraud.

Despite such an impressive reduction in fraud loss, the bulk of financial institutions are not currently using any sort of neural network technology or real-time scoring in their fraud arsenal.



Astonishingly, the majority of financial institutions do not take advantage of available neural network technology solutions that, if combined with new or existing rules-based decisioning tools, can decrease fraud loss by over 50%. Is that because the cost of these fraud prevention tools is greater than the benefit? The average cost of fraud loss among financial institutions is around \$0.06 per transaction. In contrast, the cost of employing a neural network-based detection solution averages around \$0.01 per transaction, making a very compelling case to examine integrating such solutions.

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Annual Impact to a Mid-tier Financial Institution (Average Annual Transaction Volume = 870,000)				
	Average Annual Fraud Loss per Transaction	Average Annual Solution Cost per Transaction	Net Annual Impact to Financial Institution	Net Annual Savings to Financial Institution
No Neural Network Solution	-\$0.057	\$0.0000	-\$49,590.00	
Neural Network Only	-\$0.036	-\$0.0097	-\$39,759.00	\$9,831.00
Neural Network and Rules-based Decisioning	-\$0.023	-\$0.0128	-\$31,146.00	<b>\$18,444.00</b>

Note that the fraud loss examined above only accounts for the actual amount lost in a transaction, which is just a small piece of the overall negative impact fraud can have on your business. Financial institutions must also factor in:

**Increased Administrative Costs**

- Staffing expenses incurred for increased customer service needs and back-office activity related to fraud detection response
- Mailing and production costs to notify customers of the potential breach and reissue new cards

**Increased Marketing Costs**

- Convincing existing clients that your institution is still "safe" to avoid customer churn by those worried about the security of their accounts
- Attracting new customers to replace the ones that do leave in the wake of fraudulent activity

Companies who have not yet implemented a robust fraud protection program should take another look. By reviewing the breakdown of the cost per transaction associated not only with the price of fraud protection, but the greater amount they stand to lose in actual fraud loss, increased operating costs and lost business, financial institutions will have a clearer picture of the substantial ROI neural network protection provides.

If your financial institution is not currently taking advantage of the latest advancements in neural network fraud prevention technology, including real-time transaction scoring and predictive software technology, to reduce your exposure to overall fraud costs, a First Data representative can demonstrate the combination of fraud solutions that will provide the best return and the best fit for your business.



**A Global Leader in Electronic Commerce**

First Data powers the global economy by making it easy, fast and secure for people and businesses around the world to buy goods and services using virtually any form of payment. Serving millions of merchant locations and thousands of card issuers, we have the expertise and insight to help you accelerate your business. Put our intelligence to work for you.

For more information, contact your First Data Sales Representative or visit [firstdata.com](http://firstdata.com).