



David Leblanc-Simard, Chief Actuary and Senior Vice President

## SAS® helps FCCI bring a data-driven approach to pricing commercial insurance

### Industry

Insurance

### Business Issue

Replace intuition and enhance general industry guidance with a data-driven approach to selecting and pricing accounts.

### Solution

SAS® Business Analytics

### Benefits

FCCI anticipates a 1 to 1.5 percentage point improvement in its combined ratio from being able to choose which businesses and customers to insure, and from pricing products appropriately.

At FCCI Insurance Group, SAS Analytics are providing underwriters with a new solution to help them select accounts and price the company's insurance products. The Sarasota, FL-based company expects to see a 1 to 1.5 percentage point improvement in its combined ratio from its analytical approach.

FCCI Insurance Group writes commercial insurance in 14 US states. The company, with \$1.7 billion in assets, is focused on gradually expanding its business to additional states. Like most insurers, FCCI has a tremendous amount of data. But Ned Wilson, Vice President of Treasury and Planning, felt the company could learn more from this data.

"Like most carriers, we end up relying on individual underwriters supplementing hard data with their experience and anecdotal evidence for pricing and account selection," Wilson explains. "We had a sense that there were opportunities for improvement. We have large amounts of data, and we know that there's meaningful information hidden away in that data that would help us select and price new accounts and renewals. The challenge is extracting it, understanding it, and presenting it in a meaningful way."

### Choosing SAS®

The company initially contracted the analysis to an outside vendor. "But after several months, the vendor came back with results that were unsatisfying," Wilson said. "The chief actuary and I

both had experience with SAS products. Our actuarial team uses them for reserving, and we have a SAS data warehouse. We realized that what the contractor did in six months, we could do in a day with SAS® Enterprise Miner™," Wilson says.

"While there are other analytical tools that are simpler, SAS Enterprise Miner lets us analyze the data in more depth," says David Leblanc-Simard, Chief Actuary and Senior Vice President. Nonetheless, both Leblanc-Simard and Wilson consider the solution easy to use. Wilson added, "SAS has speed, sophistication, power and a friendly user interface."

### Developing an analytical process

Wilson says underwriters are sometimes influenced by a large loss in a certain type of business or payroll class. "That understandably leaves a lasting impression, and an underwriter may become leery of that kind of business, but that isn't necessarily a good foundation for future underwriting decisions. What we are trying to do is overcome individual biases and learn from our collective experience by aggregating data over a prolonged period and averaging it out." Leblanc-Simard says the company also wants to see trends over time to adjust rate structures accordingly.

Wilson and Leblanc-Simard have worked as a team with underwriting, looking at existing data to create some pricing rules based on analysis with SAS. So far the company has discovered:



“SAS has speed, sophistication and power.”

**Ned Wilson**  
Vice President of Treasury and Planning  
FCCI Insurance Group

• **Account size matters.** Certain size accounts haven't been profitable for FCCI and, in fact, cost the company money. Wilson says they will offer size-based pricing and selection recommendations. High-accident-rate industries can be profitable clients. Some underwriters tend to like “low-mod” accounts and low-risk industries, believing they will be the most profitable. “While these accounts may have lower loss frequencies, we found that we sometimes give them a discount and then it becomes awfully hard to make any profit,” Wilson says. FCCI discovered sweet spots between high- and low-risk businesses that can be very profitable.

• **Historical data can help to predict the future.** FCCI contracted with Dun & Bradstreet to “retro score” all of the policies in the company's database. They learned that certain items, like the number of judgments or liens, were very meaningful in terms of which companies would eventually file claims.

Leblanc-Simard and Wilson say they have found other important relationships in their data that they are not yet prepared to share with industry peers. “We're discovering when it comes to underwriting rules that one size does not fit all. We're going to end up with different sets of underwriting models for pricing and selection based on whether it is new or renewal business, account size or geography,” Wilson says, adding this caveat: “We want this analysis to inform – not replace – the expert

judgment of our underwriters. There will be times when the models simply say that we don't yet know enough to underwrite an account, suggesting that a loss control visit or supplemental information may be needed.”

FCCI expects that the analysis will eventually yield a 1 to 1.5 percentage point improvement in their combined ratio to the business. “The better we can assess the risks, the better we'll be at selecting good accounts, and that will lead to being more profitable,” Wilson says.

And while Leblanc-Simard wants to use SAS to bolster the company's bottom line, he thinks it will also benefit customers. “I think we'll be able to offer customers appropriate prices, and we'll attract customers that are a good match for us.”



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