How can we price our insurance products more accurately?

**YOUR GOAL:** Ensure success through more effective pricing

Insurance is rapidly becoming more of a commodity, with customers often choosing their insurer purely on the basis of price. As a result, accurate ratemaking has become more important than ever. In fact, a Towers Perrin survey found that 96 percent of insurers consider sophisticated rating and pricing to be either essential or very important.

Multiple factors go into determining premium rates, and as competition increases, insurers are introducing new, innovative rate structures. The critical question in ratemaking is, “What risk factors or variables are important for predicting the likelihood, frequency and severity of a loss?” Although there are many obvious risk factors that affect rates, subtle and nonintuitive relationships can exist among variables that are difficult, if not impossible, to identify without applying more sophisticated analyses.

In addition, insurers must identify the risks they don’t wish to underwrite as well as answer such questions as: “Are 30-year-old drivers really less expensive to insure than 16-year-old drivers?” and “What is the relationship between claims severity and a driver’s educational background?” Traditional univariate analysis methods are outdated, and insurers have turned to multivariate statistical techniques, such as generalized linear modeling, to understand the relationships between multiple risk variables. Finally, insurers need to consider marketing costs, conversion rates and customer buying behavior in accurately pricing insurance products.

**OUR APPROACH**

The key to gaining an edge in today’s competitive market is the ability to quickly and efficiently explore, understand and act on the data in order to improve pricing competitiveness. SAS approaches the problem by delivering software and services to help you:

- **Enhance information credibility** by integrating disparate data sources – including third-party sources – regardless of format and applying embedded data quality techniques to ensure greater accuracy.
- **Increase rating granularity** by using multivariate statistical techniques – e.g., neural networks, decision trees, cluster analysis and generalized linear modeling – for calculating risk costs.
- **Quickly implement new rate changes** by reducing the time it takes to gather data, conduct analyses and create new pricing structures to gain competitive advantage.
- **Create geographical exposure reports** by augmenting existing data with socioeconomic data to assess and monitor exposure by geographic region.

SAS delivers a comprehensive solution to enable the creation of accurate predictive models of claims, retention and other customer behavior for precise product pricing.
THE SAS® DIFFERENCE: More granular rate structures, greater pricing accuracy

Only SAS provides proven software, services and insurance best practices backed by superior analytics – the driving force behind the dramatic improvement in pricing models that has reshaped the insurance industry over the last 10 years. No other vendor provides a comprehensive framework of capabilities – from data management to advanced statistical analytics – to help insurers accurately price their products and remain competitive in the aggressive insurance industry. With SAS you get:

• **Superior data integration capabilities** that let you extract, manipulate and cleanse large volumes of data from multiple legacy systems for more accurate pricing.

• **The most powerful predictive analytics available**, combining actuarial techniques and marketing analytics to help you extract maximum understanding from your data.

• **An integrated environment for tracking and monitoring model performance**, so your model efficiency changes as the insurance business changes.

Recognized as the industry leader in analytics and with more than 30 years of experience in insurance, SAS delivers a proven solution that gives insurers the ability to create profitable, more accurate rates in less time – ultimately giving them a competitive advantage.

CASE STUDY: FCCI Insurance Group

**Situation**

The company wanted to overcome individual biases in underwriting decisions and find a way to learn from underwriters’ collective experience. An initial attempt at doing this by contracting out the analysis produced unsatisfying results. Because the company’s actuarial team was already using SAS for reserving, FCCI decided to use SAS to take a data-driven approach to selecting and pricing accounts.

**Solution**

SAS delivered a solution designed to replace intuition and enhance general industry guidance by looking at existing data to create some pricing rules based on analysis.

**Results**

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.

Learn more about SAS software and services for insurance at: www.sas.com/industry/insurance