

## Cause and Effect in Ratemaking

**A** CRITICAL FUNCTION OF THE INSURANCE SYSTEM is to put a price on risk so decisions are based on true costs of various activities, making the economy more efficient. This activity, known as risk classification, is at the core of an insurer's operations and the actuarial pricing process. If there were no risk classification, everyone would pay the same insurance premiums and good risks would subsidize bad risks.

There has been quite a bit of debate in recent years about *causality*, the notion that there should be some understandable relationship between a classification and the expected losses in an insurance policy. For example, it seems reasonable that drivers with a lot of speeding tickets should be classified as bad risks and pay a higher insurance rate, because most people accept that speeding tickets are a good indicator of reckless behavior. But sometimes classifications aren't quite so intuitive, and that leads to some very interesting public policy debate.

Two recent issues in the news demonstrate this. Cell phone use by drivers has come under increased scrutiny as studies have suggested that people using cell phones get into more accidents. Insurers are also making use of credit scores in ratemaking. Insurers have found that there is a strong correlation between a positive credit history and reduced losses, and many rate accordingly.

You might think that insurers need to understand the causal relationship between the insured's actual characteristic and the reason for a higher or lower risk of loss. In fact, neither actuarial standards nor legal rate standards require this.

Actuarial Standards of Practice, No.12 Section 5.2, states that "{r}isk classification characteristics should be neither obscure nor irrelevant to the protection provided, but they need not exhibit a cause-and-effect relationship." State regulators have allowed ratemaking based on correlation alone, with no identification of the causal relationship.

Nonetheless, understanding how classifications are related to underlying hazards helps actuaries make better pricing decisions and can increase their public acceptability.

Several recent studies claim that using a cell phone while driving increases accidents. There are two conflict-

ing camps with regard to what causes more accidents from cell phones. One side suggests that the distraction of holding the phone causes more accidents. Several states and municipalities, including New York State, ban or significantly limit handheld cell phone calls while driving. If

this view is correct, cell phones do create a new hazard and may be a good candidate for a new classification.

The other side says it's the distraction of talking to someone else while driving that causes more accidents. Therefore, a parent driving children to school is just as likely to have an accident as a single driver with no children using his hands-free phone because both drivers in these instances are distracted. If this is true, then cell phone use just makes every single driver act like one who has a car full of distracting kids.

Since it's not practical to rate for who might be riding in the car, perhaps cell phone ownership isn't the most efficient classification criterion. The potential predictive power of the cell phone variable isn't clear and it's difficult to measure how people are using the cell phones (hands free vs. hand held), so there hasn't been a strong push to create a classification for cell phone users.

Credit scoring, on the other hand, is different. Insurers have vigorously argued that the predictive power of credit is so strong it can't be ignored, even if satisfactory explanations of causality are lacking. Unlike cell phones, credit scores are readily available and easy to measure, so there isn't the same implementation issue that exists with cell phones. While many accept that it's unclear why credit is an indicator of loss, others argue that it's quite intuitive that people in financial duress will be more likely to inflate claims or seek to capitalize on an accident to get out of debt.

Opponents of credit scoring argue that it's invalid unless one can pinpoint exactly which characteristic people with bad credit have that makes them more prone to loss. These groups say that you must isolate the cause and effect. This side of the issue argues that it's not fair to build a ratemaking system that simply and blindly rewards good credit scores with better insurance rates.

When considering any new policy there's often a trade-off between what you gain and what you lose. The discussion above about the parent and the single driver illustrates this concept. While it's possible that banning chil-

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dren from all automobiles might reduce adult distraction and therefore reduce losses, this is obviously not a practical suggestion. Is it fair, then, to charge cell phone users a higher rate if the root cause of the accidents is distraction, when parents with children, subject to the same distractions (and presumably the same loss experience) are not?

Some consumer groups argue that banning the use of credit scoring has a favorable effect. They allege, often without supporting data, that credit score risk classification penalizes certain minorities and other groups for credit, saving, and spending activity that may not align with the majority of the population. Others

note that banning credit scoring would be unfair because that would fail to reward insureds who have demonstrated responsibility due to their good credit scores and therefore might be entitled to a premium reduction.

So how do you balance these considerations and have an insurance system that works well for everyone? That's a difficult question and one that has come up in countless insurance debates over the years. It certainly is helpful if the stakeholders in the system can understand why certain variables affect expected losses. However, even if there's not broad agreement on why something helps to predict a loss, an effect as powerful as

credit will be difficult to ignore.

Education might also help. If using a cell phone or other distractions contribute to accidents, consumer education on this issue might reduce losses and save lives. Some consumers don't know that actions such as declaring bankruptcy or not paying bills on time might affect their cost of insurance in the future. Insurers and state insurance regulators have stepped up their efforts to educate the public about how credit scores affect insurance premiums. And whether you have a ratemaking system that uses credit or not, consumers could benefit from education that will help them improve their credit.