

How to Control Premium Leakage

Information and Decision Integrity in Insurance

By Daniel Finnegan, Ph.D.



Insurance provides a public service through the prudent assumption and management of customer risks. Profitability is the result of managing risk well. Well-managed risk, in turn, rests upon having the correct information available to make sound business decisions.

Information integrity occurs in insurance sales and underwriting when risk and rating data is accurate and complete. *Decision integrity* occurs when the right business is written at the right price.

In the claims handling processes, *information integrity* occurs when coverage, liability and loss are accurately evaluated. *Decision integrity* occurs when legitimate claimants promptly receive every penny due on their claim—and not one cent more.

How you collect rating data has a substantial impact on the total premium collected and the risk assumed.

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Compared with other financial institutions, insurance companies have limited contact with their customers. Banks and securities firms, for example, have recurring—in some cases, weekly or even daily—opportunities for customer interaction.

Property and Casualty insurance carriers, however, have few defining moments of customer contact—when the policy is sold, when it renews, when an claim is reported, when a claim is adjusted. Of these, only one—renewal—recurs at regular intervals, and two—claim report and adjusting—are rare events for the typical customer. How a company collects, manages and uses information at each of these defining

For the average P&C carrier, a 2% increase in premium income will increase profits 40%

moments determines the integrity of the resulting decisions and has a significant impact on profitability.

In this report, for the sake of brevity, I concentrate on one example of defining moments—the point of sale in personal auto lines. The concept to be remembered throughout is that the core principles apply equally across P&C lines and points of contact.

Insurance customers are not always forthright. Personal auto applicants may, for example, misreport annual mileage, usage, geographic location, principal drivers and so forth to avoid high premiums. This results in costly rating errors and losses in excess of premium when the driver is involved in an accident.

The results of some of the underwriting audits we have conducted for different auto carriers illustrate the magnitude of the problem:

- Annual mileage underreporting error rates ranged from 25 to 60 percent
- Based on accident claims involving young drivers, we found the rate of unreported youthful drivers ranged from 20 to 30 percent, resulting in average premium losses of almost 50 percent on these policies
- Garaging location was misreported in 10 to 14 percent of applications reviewed, resulting in average rating errors as high as 30 percent and net total premium losses of 3 to 4 percent
- Policyholders who have changes in rating factors that are likely to increase their premium are less likely to respond to annual policy renewal surveys than policyholders without any such changes
- Less than 40 percent of accidents are reported to police and departments of motor vehicles which increases vulnerability to non-reporting of at-fault accidents

Lost premium percentages, of course, vary by carrier, jurisdiction, types of coverage, and book of business. The one constant is that failures of information and decision integrity significantly undermine profitability and competitive position.

Conversely, competitive position and profitability are greatly enhanced through information and decision integrity.

Just what sort of opportunity are we talking about here? Let's calculate it based on the following. In the Property and Casualty insurance industry, the average profit is about five percent of premium. Assuming a fixed book of business, the average insurer can increase its profits 40% with just a 2% increase in premium income. One of our clients devoted major efforts to information and data integrity and achieved a 10 percent income gain without any associated rate increase.

A Strategy for Ensuring Integrity

There are three keys to information and decision integrity

- Systematic attention to detail
- Managing participant incentives
- Skillful use of information technology.

Systematic attention to detail. Every year, over 90 million P&C policies are written or renewed. Between 50 and 90 separate data elements are collected for each applicant, on most policies. Five to fifteen items are generally collected on renewals. The sales and underwriting processes are repetitive but *not* sufficiently systematic. How you collect rating data can have a substantial impact on total premium you collect and the degree of risk you assume. By systematizing that process you can achieve gains in total premium ranging from 3 to 12 percent without any increase in rates.

The first question on most auto policy applications is “What is your name?” The question is simple and straightforward. It is hard to imagine how such a question could be improved.

Small gains in information and decisions that recur thousands and thousands of time provide opportunities for substantial gains in profitability. For example, the phrasing used in application interviews directly impacts the quality of information obtained. The first question on most auto policy applications is “What is your name?” The question is simple and straightforward. It is hard to imagine how such a question could be improved.

Our research, however, has shown that asking, “What is your name *as it appears on your driver’s license?*” yields far superior results. This wording improves matches with department of motor vehicle records, eliminates much of the confusion arising from variable name order used by many ethnic groups, and provides a single reference point for verifying coverage following an accident. In response to this question, most applicants will show their licenses to the sales agent, thus permitting license verification and name spelling consistency.

Nearly every question on an insurance application benefits from similar careful attention to detail.

Given the right incentives, sales agents get the right information.

Managing incentives. Decision and information integrity is dependent on the incentives of *all* participants—sales agents,

managers, customers and even senior executives.

How you incent sales agents influences the business they write. For example, when sales agents are compensated largely on their new business production volume, rating integrity declines while sales volume increases.

To reduce quoted premium in a competitive market, agents may ask the mileage question as “You drive less than 7,500 miles a year don’t you?” Significant premium loss results. When one carrier included rating accuracy—as determined by independent audits of new business—as part of their sales agent compensation plan, they achieved over an 80% decline in mileage reporting errors. Given the right incentives, sales agents get the right information.

There are also effective incentives to improve the integrity of information provided by new applicants for auto insurance. When collecting driving records and accident histories, we recommend phrasing such as:

When I turn in your application, our system automatically looks at your history with DMV and other insurance companies for any tickets, accidents, or claims you have had. Unfortunately the computer may not tell the whole story. So I need you to tell me about any tickets, accidents, or claims you have had so we can get your side of the story down.

Implicit in this wording is the assumption that the carrier will automatically know about all accidents, tickets and claims. The details are the only open issue. The question makes it clear that a full report is in the applicant’s interest. Similar wordings have produced significantly greater disclosure of claims and accidents than the more standard language.

Skillful use of information technology. The massive investment the P&C industry has made in information technology should be better mobilized in the service of information and decision integrity. In a recently published white paper, we listed over a hundred automated data sources useful in the verification of claim information.¹ A similar array of sources can be tapped for sales and underwriting.

The problem of underreported annual mileage, for example, can be greatly reduced by information technology. We have developed computer programs that estimate commute distances and identify rating errors by geographically analyzing home and work addresses.

When annual mileage is calculated using successive odometer readings obtained from renewal questionnaires, rating accuracy improves significantly. Some states collect odometer readings during periodic smog or safety checks and make the data available, thus providing a means of verifying reported mileage. Verification of odometer readings when an application is taken, when a policy renews, when a claim is processed, and

By verifying odometer readings when you take an application, renew a policy, process a claim, and by utilizing available public records, it is possible to create a closed loop that makes it nearly impossible for your customers to misreport annual mileage

through available public records, creates a closed loop that makes misreporting annual mileage nearly impossible.

Most auto carriers can achieve an immediate, significant premium gain on their current book of business through the automated analysis and verification of rating data. Statistical audit procedures identify policies which are likely to have rating errors. One carrier experienced gains in premium ranging from \$50 to \$200 dollars per policy by correcting rating errors identified in such an audit.

Powerful decision and information integrity systems result from careful attention to how questions are worded, what behaviors are rewarded, and how information technology is used.

¹ "Using Technology to Fight Insurance Fraud," by Daniel Finnegan, Ph.D. and Joan Marsh, Quality Planning Corporation, 1996

Putting It All Together: One Company's Solution

Up to this point, we have discussed single rating factors in isolation. Information and decision integrity business systems, however, are the most powerful when designed as a whole.

When one of our clients asked us to design a new computerized application system, it underscored the breakthrough potential of an integrated system. Our client—a large regional carrier—required a system which their agents could use to quote and write new auto business, that agents could run both on desktop and laptop computers, and from which data could be uploaded to its mainframe insurance systems. This gave us an opportunity to build information and decision integrity into the first defining moment of customer contact.

The integrated application system does not simply automate the old paper forms. Total information and decision integrity were built into the sales process from the very beginning. All questions were developed, tested and scripted to prevent error and misreporting.

The interview is structured to guarantee completeness. The applicant's response to each question creates a branch to the next question throughout the process. This provides assurance that all necessary data information is obtained and unnecessary questions are never asked.

Operating in the background, an automated expert underwriter monitors the application, prompting additional questions where warranted, and guaranteeing consistency. For example, if the applicant reports that his house has a two-car garage, the expert underwriting function will not allow garaging discounts for more than two vehicles. By the time the application is completed, it has already undergone a complete underwriting audit, which is usually transparent to both the sales agent and the customer.

Because all mainframe system edits are built into the application, sales agents are assured that the completed application will be accepted without any referrals back to the customer for more information or clarification.

The system performs many coding and rating functions previously left for the sales agent to complete, thus preventing common rating errors. For example, the system detects the vehicle's rating class from its VIN number. Annual mileage is calculated automatically. System calculations allow sales agents to concentrate on selling without concern for the various company underwriting and sales rules.

While the project's initial focus was on information and decision integrity, early on it was obvious that the sales agents' support was critical for success. They identified the following factors as key to system acceptance.

Ease of use. The sales agents were generally not computer proficient and many did not wish to become so. The system had to be easy to use, flexible and resilient.

Sales functionality. Sales agents demanded that the system help, not hinder the sales process. To this end, agents can use the system to make quick rate quotes, save the resulting data and retrieve it later for an application. The system allows instant pricing of alternative coverages, limits, and deductibles. It eliminates redundant data entry required on the paper forms, such as placing name and address on each page.

Customized printed application. The system produces a customized print out for each customer. The customer's name appears at the top of the document. The application includes only those items relevant to the policy written, and that information is presented in clear English rather than "legalese." For example, rather than using a series of check boxes to indicate accident history, the application reads, "I certify that I have had no automobile accidents in the prior three years." Customers know exactly what they are signing. The custom application not only enhances customer relations but also bolsters the carrier's position in cases of breach or misreporting.

Best practices in sales. The system displays a sales script which marries the company's top agents' best sales practices with the principles of information and decision integrity.

The point of the example is not that every carrier should or even could have such an application system. For many carriers selling by telephone, mail or independent agents, laptop systems are not feasible. Rather, the example is meant to illustrate one of the ways all types of carriers can build information and decision integrity into a defining moment of customer contact.

Committing to Information and Decision Integrity

All the examples reviewed share a common flaw—in hindsight, they appear obvious and effortless. There are no magic fixes that apply across companies.

As apparent as our examples appear now, no such clarity existed in advance. Multiple solutions were developed and tested before success was assured. For one client, we went through over 50 drafts of an auto application before arriving at one that was proven to substantially reduce rating error. In the process, many analyst hours were logged observing sales interviews. Multiple rounds of controlled tests of alternatives were conducted, involving nearly a thousand premium audits. Follow-up customer satisfaction interviews were conducted throughout the process. Focus group sessions with underwriters and sales agents were

critical to ultimate success. Significant upgrades in information systems were required to tie new application procedures to legacy policy issuance programs and databases. The lesson is that information and decision integrity requires a major corporate commitment.

The thirty-second commercials we see every night on television commonly cost hundreds of thousands of dollars to produce. Major corporations make such large investments in such small events because the commercials are key points of customer contact that have significant impact. The P&C industry has at least as great a stake in the defining points of customer contact. Those carriers that pay close attention to these strategic moments will achieve critical competitive advantage.

About the Author

Daniel Finnegan, President of Quality Planning Corporation, has more than fifteen years of professional consulting experience in the design and implementation financial control and management systems within both the insurance industry and the Federal Government.

Dr. Finnegan has designed control systems that currently produce audited savings in excess of \$500 million annually. An applied statistician, he has directed over \$50 million in research projects on cost and fraud control for major Property and Casualty and Social Insurance programs throughout North America.

Quality Planning Corporation is a San Francisco based management consulting firm specializing in information and decision integrity systems for the insurance industry. The firm has completed consulting engagements in underwriting and claims for major national and international carriers.

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