



SOCIETY OF ACTUARIES

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# Combining an Actuarial and an Underwriting Approach

by David L. Reichlinger

**T**he essence of our profession is to reach a conclusion through an objective analysis of available data. For much of my career I felt this was the only viable approach. After assuming responsibility for an underwriting unit, I realized that it is possible to successfully combine the objective actuarial approach with the subjective underwriting approach. This is not to suggest that we exchange our computers for crystal balls and tarot cards. Instead, I am suggesting that we use the knowledge and experience we have gained in a different way.

Developing underwriting instincts is like learning to swim. It's best to start at the shallow end of the pool. Begin by making small decisions or focus on areas

B = Amount of data needed for 100% credibility. This is obviously subjective.

You can determine this by estimating the amount of data needed to be totally confident in the results.

If the credibility is 75% or higher, there should be no concern. In most situations, credibility of 50% or higher is sufficient. If the credibility is below 50%, additional data will often be necessary.

Another problem we often face is using data that isn't totally applicable. For example, it may be necessary to use general population data. To make the adjustment, use the following steps:

Continuing with the example, you may assume that underwriting actively at work employees and policy restrictions would reduce morbidity, while anti-selection would increase morbidity. After going through the remaining steps, you assume an X% decrease is in order.

Finally, let's consider dealing with an unusual quote. There are many factors to consider.

However, if you look at the following "R" factors and balance them off each other, you will usually reach a conclusion. While each factor should be reviewed, the first three are most important.

**Revenue** - How much premium will be generated?

**Risk** - What is the potential loss?

**Reward** - What is the expected profit, and how likely is it to be achieved?

**Resources** - Will the case be difficult to administer?

**Relationship** - Is an important client or agent involved?

**Renewability** - Will it be possible to renew the case?

There isn't room in this article to describe every possible situation that you may encounter. However, if you continue to develop your underwriting skills, the process will become more automatic and applicable in a variety of situations. I have found that using an underwriting approach has made me a better actuary. I hope that you will reach the same conclusion.

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in which you are very knowledgeable. Try taking something you have already completed and see if you could arrive at a similar result intuitively. Talk to underwriters who have a strong underwriting instinct. With continual practice, you will be able use an underwriting approach more and more often.

One of the biggest challenges we face is insufficient data. You can use the following simple formula to estimate the credibility of your data:

$(A/B)^{.5}$  where:

A = Amount of data available (however measured)

1. Determine what factors are needed to make the adjustment
2. Decide whether each factor will have a positive or negative impact
3. Estimate the total adjustment
4. Estimate the impact of each factor, and calculate the total
5. Resolve any discrepancies between the two approaches
6. If necessary, discuss with someone else.