**Summary of the Statement of Principles Regarding Risk Classification**

*All quotes are from this SOP with page numbers noted*

Underwriting

“Underwriting is the process of determining the acceptability of a risk based on its own merits.” (page 7)

Developing a risk classification system is separate from underwriting, and provides the context in which underwriting is done.

Marketing

Marketing impacts the mix of business you write. If there are distortions in the risk classification system, the mix of business can impact profitability.

Program design

* ***Degree of choice available to the buyer***– If coverage is compulsory and without competitors, broad classifications may be possible without adverse selection.
* ***Experience-based pricing***– To the extent this is used, less refined initial classifications are needed.
* ***Premium payer***– Broad classifications can also be used if the insured is not the one bearing the cost.

Statistical considerations

* ***Homogeneity***– Expected costs for risks in a class should be reasonably similar.
* ***Credibility***– The larger the number of observations, the more accurate are statistical predictions.
* ***Predictive Stability***– Ultimately we are trying to predict future costs. “The predictive capability must be responsive to changes in the nature of insurance losses, yet stable in avoiding unwarranted abrupt changes in resulting prices.” (page 10)

Operational considerations

* ***Expense***– The cost of the whole risk classification system should be as low as possible. The cost of collecting, storing and processing a given variable should be reasonable in relation to the benefit.
* ***Constancy*** – Characteristics should remain constant for a given risk, at least over the insured period. To the extent that it is not, this will tend to increase the expense and decrease the utility.
* ***Availability of coverage***– While availability of coverage should be increased through the use of a risk classification system, it is possible that the correct highest rate is beyond what can be afforded. Sometimes this can be mitigated through limitations on coverage.
* ***Avoidance of extreme discontinuities*** – There should be enough classes to establish a reasonable continuum, but few enough classes to leave reasonable differences. The extreme ends should be examined for possible large rate differences between adjacent classes.
* ***Absence of ambiguity***– There should be no ambiguity in the assigning of classes. Classifications should be mutually exclusive and exhaustive.
* ***Manipulation***– There should be minimal ability for the insured to manipulate or misrepresent their characteristics.
* ***Measurability*** – Risk classes should be conveniently and reliably measured.

Hazard reduction

Sometimes a risk classification system can provide an incentive for an insured to reduce their risk.

For example, a stability control discount may encourage the purchase of vehicles with this feature.

While desirable, this is not a necessary feature of a risk classification system.

Public acceptability

A risk classification system must be in line with society’s values. However, this can be difficult because values…

* + “…are difficult to ascertain” (page 14)
	+ “…vary among segments of the society” (page 14)
	+ “…change over time” (page 14)

To increase public acceptability, a risk classification should…

* + “…not differentiate unfairly among risks” (page 14)
	+ “…be based upon clearly relevant data” (page 14)
	+ “…respect personal privacy” (page 14)
	+ “…be structured so that the risks tend to identify naturally with their classification” (page 14)

Causality

Establishing cause and effect can boost the acceptability of a classification; however, this is not a requirement. It is enough to establish a plausible relationship between the classification and the underlying risk.

Controllability

There are two sides to this coin. If an insured can control which classification he/she is in, this can mean that the system is encouraging hazard reduction. It can also mean that the system can be manipulated, leading to irrelevant results.