

**RISK CLASSIFICATION**  
**STATEMENT OF PRINCIPLES**

American Academy of Actuaries

Committee on Risk Classification

This booklet has been prepared for an audience generally familiar with insurance concepts and terms but not necessarily with the technical aspects of insurance.

Progressive Exhibit 2012  
*Liberty Mutual v. Progressive*

## TABLE OF CONTENTS

	<u>Page</u>
I. Summary	1
II. Economic Security and Insurance	2
A. Hazard Avoidance and Reduction	2
B. Transfer of Financial Uncertainty	3
C. Public and Private Programs	3
III. The Need for Risk Classification	4
A. Rationale for Risk Classification	4
B. Three Primary Purposes of Risk Classification	5
1. Protection of Program's Financial Soundness	5
2. Enhanced Fairness	6
3. Economic Incentive	6
IV. Considerations in Designing a Risk Classification System	7
A. Underwriting	7
B. Marketing	8
C. Program Design	8
1. Degree of Choice Available to the Buyer	8
2. Experience Based Pricing	8
3. Premium Payer	9
D. Statistical Considerations	9
1. Homogeneity	9
2. Credibility	10
3. Predictive Stability	10
E. Operational Considerations	11
1. Expense	11
2. Constancy	11
3. Availability of Coverage	12
4. Avoidance of Extreme Discontinuities	12
5. Absence of Ambiguity	13
6. Manipulation	13
7. Measurability	13
F. Hazard Reduction Incentives	13
G. Public Acceptability	14
H. Causality	14
I. Controllability	15
V. Conclusion	15

## I. Summary

Insurance is a means for dealing with the economic uncertainty associated with chance occurrences. It does so by exchanging the uncertainty of the occurrence, the timing, and the financial impact of a particular event for a predetermined price.

To establish a fair price for insuring an uncertain event, estimates must be made of the probabilities associated with the occurrence, timing, and magnitude of such an event. These estimates are normally made through the use of past experience, coupled with projections of future trends, for groups with similar risk characteristics.

The grouping of risks with similar risk characteristics for the purpose of setting prices is a fundamental precept of any workable private, voluntary insurance system. This process, called risk classification, is necessary to maintain a financially sound and equitable system. It enables the development of equitable insurance prices, which in turn assures the availability of needed coverage to the public. This is achieved through the grouping of risks to determine averages and the application of these averages to individuals.

It is also important to understand what risk classification is not. Determining average experience for a particular class of risk is not the same as predicting the experience for an individual risk in the class. It is both impossible and unnecessary to predict experience for individual risks. If the occurrence, timing and magnitude of an event were known in advance, there would be no economic uncertainty and therefore no reason for insurance.

It is also not the purpose of risk classification to identify unusually good and bad risks or to reward or penalize certain groups of risks at the expense of others. Risk classification is intended simply to group individual risks having reasonably similar expectations of loss.

Difficulty in risk classification comes with the introduction of concepts such as “fairness” and “similar risk characteristics.” Each individual, each business, each piece of property is unique; to the extent that the risk classification process attempts to identify and measure every characteristic, it becomes unworkable. On the other hand, because there are differences in risk characteristics among individuals and among properties which bear significantly upon cost, to ignore all such differences would be unfair. Most of the controversy surrounding risk classification involves where the lines are to be drawn.

To achieve and maintain viable insurance systems, the process of risk classification should serve three primary purposes. It should:

- ! protect the insurance system's financial soundness;
- ! be fair; and
- ! permit economic incentives to operate and thus encourage widespread availability of coverage.

Striking the appropriate balance among these is not always easy; however, they are clearly in the public interest and are not incompatible.

The following basic principles should be present in any sound risk classification system in order to achieve the above purposes:

- ! The system should reflect expected cost differences.
- ! The system should distinguish among risks on the basis of relevant cost-related factors.
- ! The system should be applied objectively.
- ! The system should be practical and cost-effective.
- ! The system should be acceptable to the public.

Risk classification is only one factor in an entire set of factors which bear on private, voluntary insurance programs. Other factors--such as marketing, underwriting and administration--combine with risk classification to provide an entire system of insurance. Changing one factor has possible implications on other factors. Changes must be considered in the context of the entire system.

## II. Economic Security and Insurance

Society requires various mechanisms for coping with the financial impact of chance occurrences, both natural and societal, the prospect of which generates economic insecurity.

### A. Hazard Avoidance and Reduction

Some hazards may be avoided. For example, most of the chance of airplane accidents may be avoided by not flying. The incidence and severity of other hazards may be

reduced significantly by taking appropriate safety precautions. For example, the installation of smoke detectors or automatic sprinklers may reduce the chance of fire losses. However, the practical application of hazard avoidance and hazard reduction is limited. Although some financially insignificant hazards may be retained and offset by accumulated savings or reserves, the retention of major financial uncertainties may be undesirable and unwise. Accordingly, a number of programs which involve a transfer of financial uncertainty have been developed.

#### B. Transfer of Financial Uncertainty

Programs for transferring financial uncertainty include: sharing among families and friends; charitable activities by individuals and organizations; governmental assistance and insurance programs; self-insured group pension and welfare plans; and private insurance programs.

Certain basic distinctions can be made among these various programs. For example, charitable organizations and governmental assistance programs generally provide benefits based on demonstrated need, whereas self-insured group pension and welfare plans, and governmental and private insurance programs, provide benefits based on defined contractual rights.

#### C. Public and Private Programs

A comparison of governmental and private programs indicates both similarities and differences.

Both types involve the transfer of financial uncertainty from one party to another and the subsequent pooling of risks. In both cases, the exposure to loss by the sharing mechanism should be broad enough to assure reasonable predictability of the total losses.

On the other hand, governmental programs are provided by public law, whereas private insurance is provided through an individual contractual arrangement. Governmental programs usually are compulsory, while private insurance programs are often voluntary. Hence, competition plays a large and vital role in private insurance but little or no role in governmental programs. Governmental programs are often devised or needed to provide coverage for those hazards which cannot be effectively covered by the private insurance system. In governmental programs, the value or cost of benefits received by, or paid on behalf of, a class of recipients need not have any long-term relationship to the amounts paid into the program by that class. That is contrasted with private voluntary insurance programs, where such a long-term relationship is essential.

# Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

## Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

## Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

## Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

## API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

## LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

## FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

## E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.