

**RISK66® MAP**  
POWERED BY SIGMA**Data**

Loss data  
Exposures  
Program retentions

**Reports**

Loss pick  
Reserve analysis  
Cash flow of liabilities  
Confidence interval analysis

**Decisions**

Feasibility studies  
Determination of financial statement liabilities  
Loss prevention efforts  
Loss portfolio transfers  
Limits and retention analysis  
Total cost of risk  
Strategic risk analysis  
Financial disaster recovery program  
Budgeting and cost allocation  
Sarbanes Oxley

**Your organization's  
loss history is more  
valuable to the actuary  
when analyzed  
with the risk or  
exposure data for the  
same time period.**

## RISK66 Snapshot: Exposures

### Quick Definition

Actuarial analyses rely heavily on the study of trends in historical loss and exposure information. Where loss history measures retained risk, exposure data measures the type and scope of risk being analyzed. Exposures can vary by line of coverage and typically require discussion with an actuary to determine which is best suited for a given analysis. The most common measurements of exposure are payroll for workers compensation, vehicles for automobile liability, and sales or revenue for general liability.

### The Details

In many cases, your organization's loss history is more valuable to the actuary when analyzed with exposure data for the same time period. Unlike losses, which may show some degree of development (open claims may have reserve adjustments), exposure data remains unchanged once the policy year audit closes. Historical exposures, then, should be gathered so they match the same time period for which historical losses are provided. If exposure data is not available for a specific time period, actuaries can estimate it based on your organization's historical growth patterns.

### Discussion

One of the most important goals when collecting and compiling exposure data is to ensure it is consistent and accurately represents the risk being evaluated. For example, if some periods of historical payroll data contain bonuses or executive pay, then all other periods should also contain those amounts. Similarly, if a risk management program has both a guaranteed cost and self-insured component, and the actuary is analyzing losses for the self-insured portion exclusively, then only payroll data pertaining to the self-insured program should be included. As a final example, if the losses in a monopolistic state are excluded from an actuarial analysis, then that state's corresponding payroll should also be excluded. In general, one should always attempt to align their exposure data with the loss data being provided to the actuary.

Loss data typically comes from the loss runs provided by an insurance carrier or third party administrator. In contrast, exposure data often comes from several sources, which may make collecting it a challenge. For example, turnover in an organization's accounting department might lead to a change in the way payroll numbers are recorded or totaled. In most cases, though, much of the exposure data has already been gathered and summarized for other purposes, like an underwriting submission or payroll tax returns. Be sure to consider all potential sources for the data in order to prevent duplicating work that has already been completed.

The collection of exposure data is an important step toward completing an actuarial report. The information gathered from that data may have a significant impact on the direction of the risk management program.



RISK66® Snapshots are available on a variety of analytical topics. SIGMA's booklet entitled "Actuarial Advantage" is also available in the RISK66® portal as another technical resource.

As a part of RISK66®, your broker or agent has a close working relationship with our staff of actuaries. In today's competitive market place, analytics are playing an ever increasing role in risk management, alternative loss financing decisions, and scrutiny by audit firms of financial statement liabilities.

Your representative has chosen to bring you the best of both worlds - strong analytical capabilities AND an independent actuarial resource. We hope RISK66® Snapshots are helpful in your gaining a complete understanding of the competitive advantage an actuarial resource can provide.

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*Founded in 1995, SIGMA Actuarial Consulting Group, Inc. is located in Brentwood, Tennessee. SIGMA provides casualty actuarial consulting services to risk managers, brokers, captive managers, risk management consultants, TPA's and CPA's.*

*Our consulting services include all analyses necessary to insure proper financial reporting and program funding. Our background includes experience in the process of developing both traditional and alternative insurance programs for entities of all sizes and types.*

