

### 3.4.0 Overview

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The previous sections covered ratemaking techniques that use historical data to develop actuarial estimates of future loss experience.

According to the Law of Large Numbers, as the number of similar and independent exposure units increases, the observed experience will converge toward the true underlying experience. Consequently, while the experience of individual policyholders may vary significantly from year to year, the observed experience of a large number of independent units will be more stable and predictable.

However, when performing ratemaking, actuaries may not always have access to sufficient data to produce accurate and stable rates. In such cases, actuaries can supplement the data with one or more sets of related experience.

In this section, we will explore various methods for measuring credibility in an actuarial estimate. We will then discuss the desirable qualities of the complement of credibility and evaluate how different methods for determining the complement of credibility meet these qualities.