Glossary of Terms

accounting rate of return (ARR) measurement of the percentage return of average annual cash flows on initial investment. The ARR is the average annual cash flow divided by the initial investment.

annuity a stream of periodic payments made over a specified period of time

benefit/cost ratio (BCR) measurement of discounted values of inflows divided by the net investment using in comparing the NPV of various projects

catastrophe modeling a computerized system that generates a very large set of simulated events to estimate the likelihood, magnitude or intensity, location, degree of damage, and ultimately, insured and uninsured losses arising from a catastrophe event such as a hurricane, earthquake, tornado, flood, wildfire, winter storm, terrorism, war, pandemics, or cyberattack

causality Relationship between one variable and another variable in which the second variable is a direct consequence of the first. However, correlation between two variables does not necessarily imply causality.

coefficient of determination r2 is a descriptive measure of the strength of the regression relationship or how well the regression line fits the

correlation Measure of the strength of a linear relationship between two variables

delphi method A series of surveys/questionnaires used to form a consensus opinion on the anticipated impact of a risk

discount rate the organization's cost of capital; also known as the hurdle rate, the weighted average cost of capital or WACC, or the required rate of return

financial capacity the organization's ability to fund projects, activities, etc.

future value (FV) or compound value tomorrow's value of today's cash flow

heat mapping A visual representation of complex sets that uses colors to concisely indicate patterns or groupings, thus making the data more actionable

histograms A graphical representation of the distribution of data that is used to illustrate the spread of numerical data

ishikawa diagram (fishbone diagram) a systematic method used to determine underlying and contributing causes of losses

law of large numbers In statistics, as the sample size increases, the average of the sample gets closer to the average of the whole population

left skew negative skew

linear regression Statistical technique of modeling the relationship between variables by fitting the "best" line to a scatter of dots

loss development the process by which data is adjusted to account for lag time to settle claims, recognize Incurred But Not Reported Losses (IBNR) and index for inflation

loss development factor used to adjust (multiply) known claims to determine the anticipated value for claims over a specific time period

mean Sum of all observations divided by the number of observations (also known as the average or arithmetic mean)

median Midpoint of the observations ranked in order of value; half the observations lie below and half above the middle value (also known as the 50th percentile). If an even number of observations, the median is the average of the middle two.

mode Observation that occurs most often in the sample; the highest frequency. There may be none, one or more than one mode. The population mode is the observation that has the highest probability of occurring.

outlier An extreme value that is much higher or lower than the other values in the data set

net present value (NPV) measurement of the PV of future cash inflows compared to the net investment of a project, using organization's discount rate as i

payback measurement of the length of time needed to recoup the cost of a capital investment

population The entire group of observations

predictive analytics use of statistical techniques ranging from data mining and modeling through analyzing current and historical facts and transactions to make predictions of future unknown events

present value (PV) today's value of a tomorrow's cash flow

present value factor (PV Factor) predetermined factor that can be used to simplify present value calculations

present value of an annuity factor (PVA Factor) predetermined factor that can be used to simplify present value of annuities calculations

qualitative analysis The analysis of loss exposures that cannot be measured precisely, including non-monetary considerations such as the organization's reputation and brand image.

quantitative analysis The use of widely accepted statistical methods to calculate numerical values for risks and loss exposures

range The difference between the largest and smallest values

right skew positive skew

risk analysis the assessment of the potential impact of various exposures on an organization. It is an essential part of the Risk Management Process.

risk mapping A visual analytical tool from which all risks of an organization can be identified, and their potential impact can be understood

risk modeling The use of relevant historical data and past behaviors to find correlations and extrapolate data to predict future losses based on assumptions as determined by experts

risk register Another risk analysis method that prioritizes risks based on a scale of anticipated potential impact

root cause analysis A systematic method to drill down to the root cause of an incident

sample A subset of a larger group having the same characteristics of the group

skewness The measure of the degree of asymmetry or distortion from a symmetrical bell curve of a frequency distribution

standard deviation of a population of losses The amount of variation or dispersion in a set of data values

time value of money (TVOM) the value of money over a given amount of time considering a given amount of interest

triangulation A study of the historical changes over time in frequency, severity, and payout patterns