

# Glossary for Loss Data Analytics

*An open text authored by the Actuarial Community*

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# Chapter 1

## Terms by Chapter

### 1.1 Chapter 1 Terms

Term	Description
loss adjustment expenses	Loss adjustment expenses are costs to the insurer that are directly attributable to settling a claims. For example, the cost of an adjuster is someone who assess the claim cost or a lawyer who becomes involve in settling an insurer's legal obligation on a claim
unallocated loss adjustment expenses	Unallocated loss adjustment expenses are costs that can only be indirectly attributed to claim settlement; for example, the cost of an office to support claims staff
allocated loss adjustment expenses	Allocated loss adjustment expenses, sometimes known by the acronym ALEA, are costs that can be directly attributed to settling a claim; for example, the cost of an adjuster
indemnification	Indemnification is the compensation provided by the insurer.
insurance claim	An insurance claim is the compensation provided by the insurer for incurred hurt, loss, or damage that is covered by the policy.
loss amount	The loss amount is the size of the loss incurred by the policyholder for incurred hurt, loss, or damage that is covered by the policy.
analytics	Analytics is the process of using data to make decisions.
renters insurance	Renters insurance is an insurance policy that covers the contents of an apartment or house that you are renting.
homeowners insurance	Homeowners insurance is an insurance policy that covers the contents and property of a building that is owned by you or a friend.

Term	Description
automobile insurance	An insurance policy that covers damage to your vehicle, damage to other vehicles in the accident, as well as medical expenses of those injured in the accident.
property insurance	Property insurance is a policy that protects the insured against loss or damage to real or personal property. The cause of loss might be fire, lightening, business interruption, loss of rents, glass breakage, tornado, windstorm, hail, water damage, explosion, riot, civil commotion, rain, or damage from aircraft or vehicles.
nonlife insurance	Nonlife insurance is any type of insurance where payments are not based on the death (or survivorship) of a named insured. Examples include automobile, homeowners, and so on. Also known as property and casualty or general insurance.
casualty insurance	Casualty insurance is a form of liability insurance providing coverage for negligent acts and omissions. Examples include workers compensation, errors and omissions, fidelity, crime, glass, boiler, and various malpractice coverages.
valuation date	A valuation date is the date at which a company summarizes its financial position, typically quarterly or annually.
underwriting	Underwriting is the process where the company makes a decision as to whether or not to take on a risk.
ratemaking reinsurer	A reinsurer is an insurance company that offers insurance to an insurer.
loss reserve	A loss reserve is an estimate of liability indicating the amount the insurer expects to pay for claims that have not yet been realized. This includes losses incurred but not yet reported (IBNR) and those claims that have been reported claims that haven't been paid (known by the acronym RBNS for reported but not settled).
technical provisions	Technical provisions is another name for loss reserves.
experience rating merit rating risk classification	Risk classification is the process of grouping policyholders into categories, or classes, where each insured in the class has a risk profile that is similar to others in the class.
cream skimming claims triage	

Term	Description
pure premium	Pure premium is the total severity divided by the number of claims. It does not include insurance company expenses, premium taxes, contingencies, nor an allowance for profits. Also called loss costs. Some definitions include allocated loss adjustment expenses (ALAE).
loss cost	Loss cost is the total severity divided by the number of claims. It does not include insurance company expenses, premium taxes, contingencies, nor an allowance for profits. Also called pure premium. Some definitions include allocated loss adjustment expenses (ALAE).
rating variables	
coinsurance	Coinsurance is an arrangement whereby the insured and insurer share the covered losses. Typically, a coinsurance parameter specified means that both parties receive a proportional share, e.g., 50%, of the loss.
deductible	A deductible is a parameter specified in the contract. Typically, losses below the deductible are paid by the policyholder whereas losses in excess of the deductible are the insurer's responsibility (subject to policy limits and coinsurance).
policy limit	A policy limit is the maximum value covered by a policy.
personal lines	
dividend	A dividend is the refund of a portion of the premium paid by the insured from insurer surplus.
bonus	
retrospective premiums	The process of determining the cost of an insurance policy based on the actual loss experience determined as an adjustment to the initial premium payment.
prospective premiums	
claims adjustment	Claims adjustment is the process of determining coverage, legal liability, and settling claims.
Commercial line	Commercial line is insurance purchased by commercial ventures (businesses)
line of business	A line of business is a classification of business written by insurers.
claims leakage	Claims leakage represents money lost through claims management inefficiencies.
fraud detection	
case reserve	A case reserve is an estimate of the insurer's future liability made by the claims adjuster.

Term	Description
adjuster	An adjuster is a person who investigates claims and recommends settlement options based on estimates of damage and insurance policies held.
life Insurance	Life insurance is a contract where the insurer promises to pay upon the death of an insured person. The person being paid is the beneficiary.
capital allocation	

## 1.2 Chapter 2 Terms

Term	Description
Aggregate Claims	The sum of all claims observed in a period of time
Bernoulli distribution	A special case of the binomial distribution where the number of trials is equal to 1, leading to only 2 potential outcomes: success or failure
Binomial distribution	A Frequency distribution of the possible number of successful outcomes in a given number of trials in each of which there is the same probability of success.
Distribution function $F(x)$	A Function that gives the probability that a discrete random variable is equal to or less than some value.
Frequency	The rate at which something occurs or is repeated over a particular period of time or in a given sample.
Gamma Distribution	A two parameter family of continuous probability distributions that is defined by a shape and scale parameter.
Maximum Likelihood Estimator	The maximum likelihood estimator (mle) for ? is any maximizer of the likelihood; in a sense the mle chooses the parameter value that best explains the observed observations
Mixture	A probabilistic combination of two or more probability distributions
Moment generating function	A real function whose derivatives at zero are equal to the moments of the random variable.
Negative binomial Poisson	A discrete probability distribution that expresses the probability of a given number of events occurring in a fixed interval of time or space if these events occur with a known constant rate and independently of the time since the last event.
Probability generating function	A power series representation of the probability mass function of the random variable.



Term	Description
Probability mass function $f(x)$	A Function that gives the probability that a discrete random variable is exactly equal to some value.
Severity	The amount of damage that is (or that may be) inflicted by a loss or catastrophe.
Survival function $S(x)$	A function that gives the probability that an object of interest will survive beyond a specified time.
Zero Modified Distribution	A modified member of the $(a,b,0)$ class that has had its probability mass at 0 modified in some way. The rest of the probability masses are adjusted to accommodate this modification.
Zero Truncated Distribution	A modified member of the $(a,b,0)$ class that has a probability mass of 0 at 0. The rest of the probability masses are adjusted to accommodate this modification.



## Chapter 2

# Terms by First Definition

	Term	Chapter first defined
42	adjuster	1
45	Aggregate Claims	2
3	allocated loss adjustment expenses	1
7	analytics	1
10	automobile insurance	1
46	Bernoulli distribution	2
47	Binomial distribution	2
33	bonus	1
44	capital allocation	NA
41	case reserve	1
13	casualty insurance	1
36	claims adjustment	1
39	claims leakage	1
24	claims triage	1
28	coinsurance	1
37	Commercial line	1
23	cream skimming	1
29	deductible	1
48	Distribution function $F(x)$	2
32	dividend	1
20	experience rating	1
40	fraud detection	1
49	Frequency	2
50	Gamma Distribution	2
9	homeowners insurance	1
4	indemnification	1
5	insurance claim	1
43	life Insurance	NA
38	line of business	1
1	loss adjustment expenses	1
6	loss amount	NA
26	loss cost	1
18	loss reserve	1
51	Maximum Likelihood Estimator	2
21	merit rating	1
52	Mixture	2

	Term	Chapter first defined
53	Moment generating function	2
54	Negative binomial	2
12	nonlife insurance	1
31	personal lines	1
55	Poisson	2
30	policy limit	1
56	Probability generating function	2
57	Probability mass function $f(x)$	2
11	property insurance	1
35	prospective premiums	1
25	pure premium	1
16	ratemaking	1
27	rating variables	1
17	reinsurer	1
8	renters insurance	1
34	retrospective premiums	1
22	risk classification	1
58	Severity	2
59	Survival function $S(x)$	2
19	technical provisions	1
2	unallocated loss adjustment expenses	1
15	underwriting	1
14	valuation date	1
60	Zero Modified Distribution	2
61	Zero Truncated Distribution	2