

So, a formal definition of **insurance** would be a contract or device for transferring risk from a person, business, or organization to an insurance company that agrees, in exchange for a premium, to pay for losses through an accumulation of premiums.

1.6. LAW OF LARGE NUMBERS

Overall, we're a pretty safe group of people. Everyone doesn't have a loss all the time. For this reason, by predicting the number of losses that will occur, an insurance company can provide large amounts of insurance for relatively little money. To help them predict their losses accurately so they can charge the proper premiums needed to accumulate adequate funds, insurance companies rely on the law of large numbers. The law of large numbers says that the more examples used to develop any statistic, the more reliable the statistic will be.

Consider these statistics.

- Four out of five homes have defective wiring. To determine this, 15 homes were checked.
- Three out of four automobiles will suffer some form of tire damage each year. Five million auto owners were surveyed.

The law of large numbers tells us that the tire statistic will be more accurate than the wiring statistic in predicting what will happen in the future because the tire statistic is based on many more examples.

1.7. ELEMENTS OF INSURABILITY

1.7.1. Pure Risk, Speculative Risk

Although theoretically almost anyone could purchase insurance to cover almost any risk, there are certain rules that establish a practical basis regarding who can be insured and for what.

For instance, insurance cannot be used to handle speculative risks. **Speculative risks** are risks in which there exists both the possibility of gain and the possibility of loss. A poker game is an example of a speculative risk. Insurance can be used to manage only **pure risks**, which involve only the possibility of loss. A person can buy insurance to protect against loss if a fur coat is stolen (pure risk) but not to protect against loss if the price of stock goes down (speculative risk).