

Basic Risk Assessment with FAIR

Aaron Bedra
Relevance, Inc.

Risk

- **The probable frequency and probable magnitude of future loss**

The Purpose of Risk Modeling

- **The purpose of any risk analysis is to provide the decision-maker with the best possible information about loss probabilities. Consequently, it's crucial that decision-makers accept the risk analysis methodology being used, and that the information resulting from the analysis is in a form that's useful to them.**

Limitations of Risk Analysis

- **Risk analysis is never perfect. The fact is, all risk analysis models are approximations of reality because reality is far too complex to ever model exactly. Nonetheless, by decomposing a complex subject into clearer, more readily analyzed components, we can understand and make reasoned judgments about the subject.**

Probabilities versus Possibilities

- **Possibility is a binary condition – either something is possible, or it's not – 100% or 0%.**
- **Probability reflects the continuum between absolute certainty and impossibility.**

**Risk is always a
probability issue**

Russian roulette with a standard six-cylinder revolver versus a semi-automatic

- **The possibilities are equal with either handgun – i.e., it's 100% possible in both cases that the player would suffer a “negative outcome.” The probabilities, however, are significantly different. In the first case, assuming the revolver is loaded with a single bullet, the probability of a negative outcome is about 17%. In the second case, assuming a single bullet is loaded and chambered in the semi-automatic, the probability of a negative outcome is about 100% (it might, of course, misfire).**



“Prediction is very difficult, especially about the future.”

Nobel Laureate and nuclear physicist, Niels Bohr

Accuracy



Precision



Error-Prone & Doubtful



Repeatable & Reproducible

Images: Wikipedia

Jim Novo :: The Drilling Down Project :: www.JimNovo.com

**[riskmanagementinsight.com/media/
documents/FAIR_Introduction.pdf](http://riskmanagementinsight.com/media/documents/FAIR_Introduction.pdf)**

Questions?

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