



Practical Risk Management Methods

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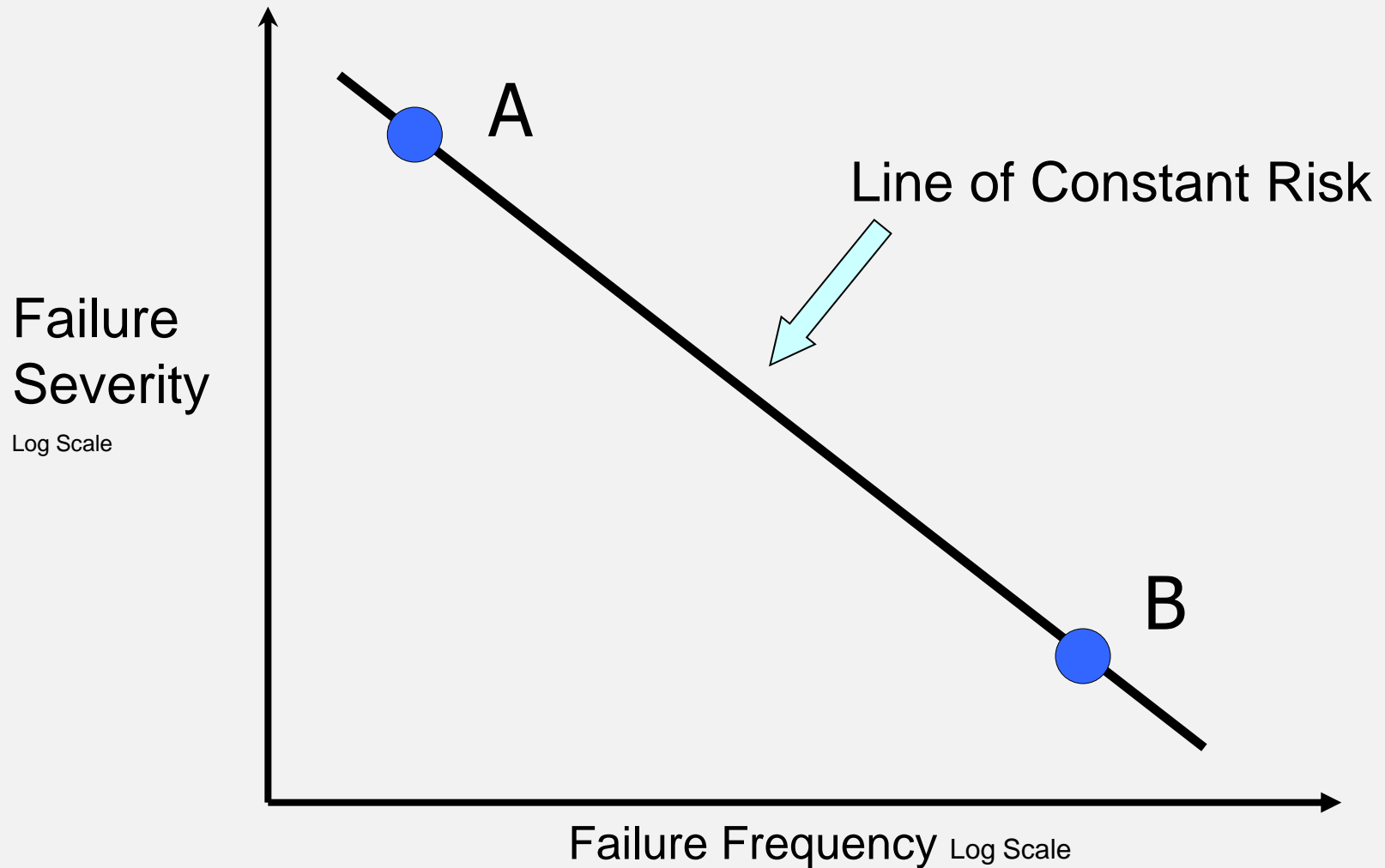


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Geometric Interpretation of Risk



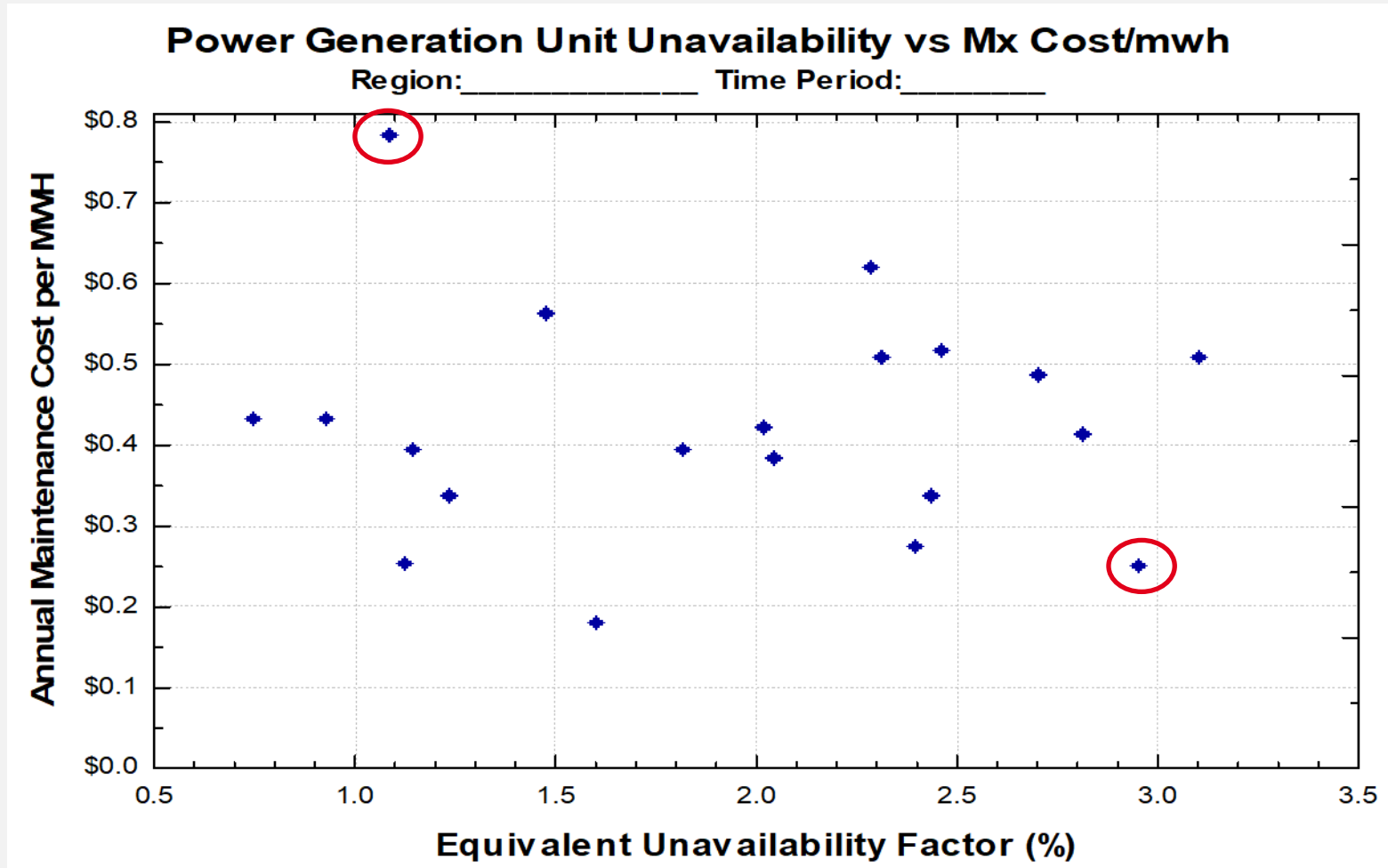
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Frequency, Severity, & Risk



HSB Engineering Insurance



Frequency, Severity, & Risk

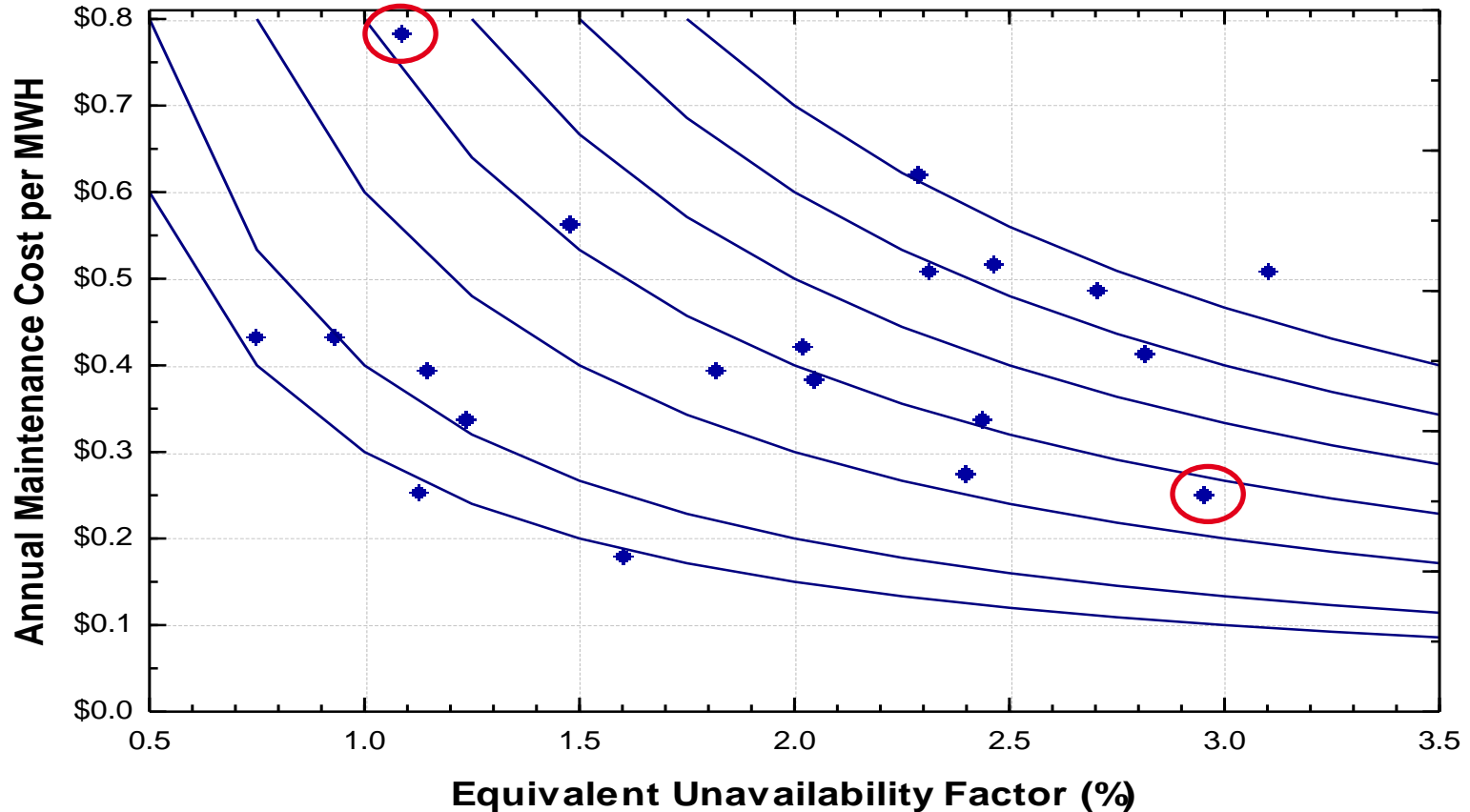


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Power Generation Unit Unavailability vs Mx Cost/mwh

Region: _____ Time Period: _____



Time Dependent Risk Analysis

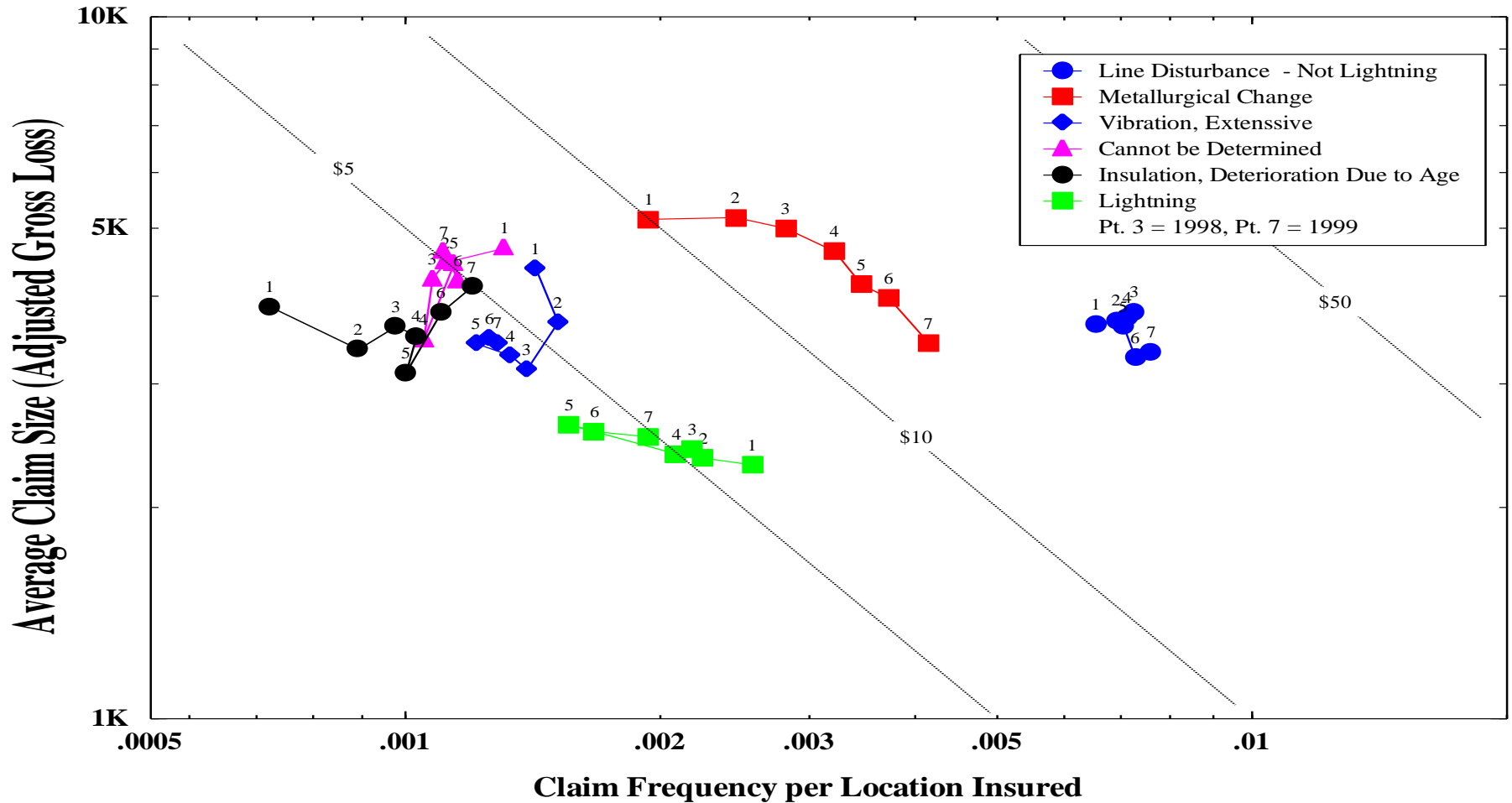


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Retail Sales & Service: Commercial Excluding ReSource

Developed as of January 7, 2000



“Measuring” Risk Perception - Survey



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Risky Business! Directions: (This exercise must be done on your own.) Read through the following list. Number the entries in the list from 1 to 30. Number 1 will indicate the item in the list you feel results in the most U.S. deaths in a given year. Number 30 is the list item you feel results in the fewest deaths per year in the U.S.

	AIDS		murder
	boating		nuclear power
	choking		power mowers
	drowning		railroads
	getting hit by a falling object		riding a bicycle
	firearms accidents		riding in a motor vehicle
	flying in a small plane		setting off fireworks
	flying on a commercial airliner		slipping or tripping
	getting burned in a fire		smoking
	lightning		snow skiing
	getting overheated		suicide
	getting too cold		tornadoes
	hunting		using electricity
	hurricanes		using stairs
	accidental poisoning		using your bathtub

“Measuring” Risk Perception - Survey Results



<u>Activity</u>	<u>Actual</u>	<u>Jr. High</u>	<u>Insurers</u>	<u>Police</u>
AIDS	3	1	3	3
motor vehicles	2	2	2	1
murder	5	3	4	4
suicide	4	4	7	5
smoking	1	5	1	2
<hr style="border-top: 1px dashed black;"/>				
setting off fireworks	29	26	28	28
snow skiing	26	27	26	27
slipping or tripping	19	28	12	17
using your bathtub	20	29	16	20
using stairs	13	30	11	22



Plan A

50% chance of saving 10,000 people

50% chance of killing 10,000 people

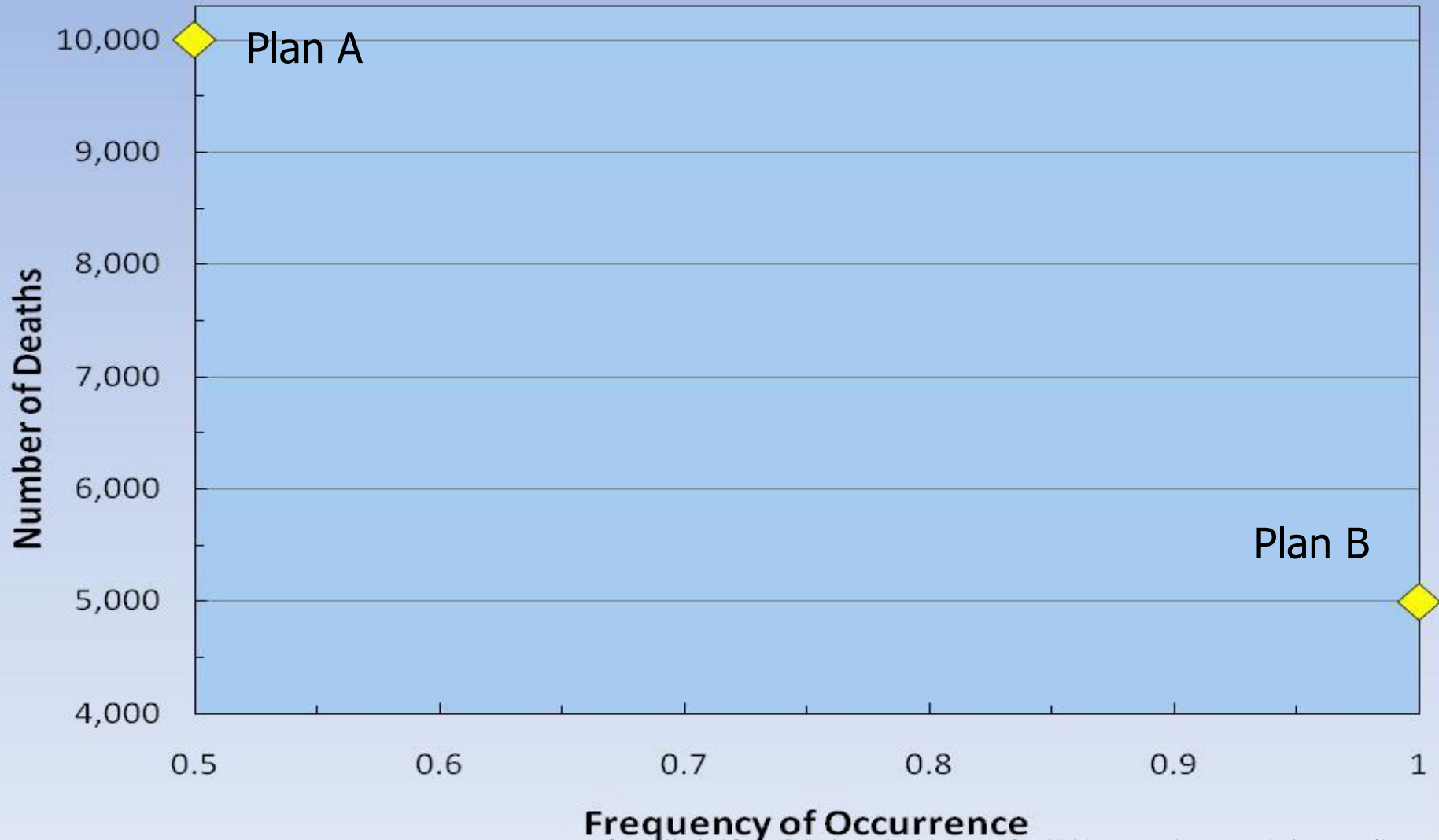
Plan B

100% chance of saving 5,000 people

100% chance of killing 5,000 people



Risk Management Decision Alternatives





Risk Management => ethics

- I. Rule Based
- II. Consequence
- III. Aristotelian (Virtue)