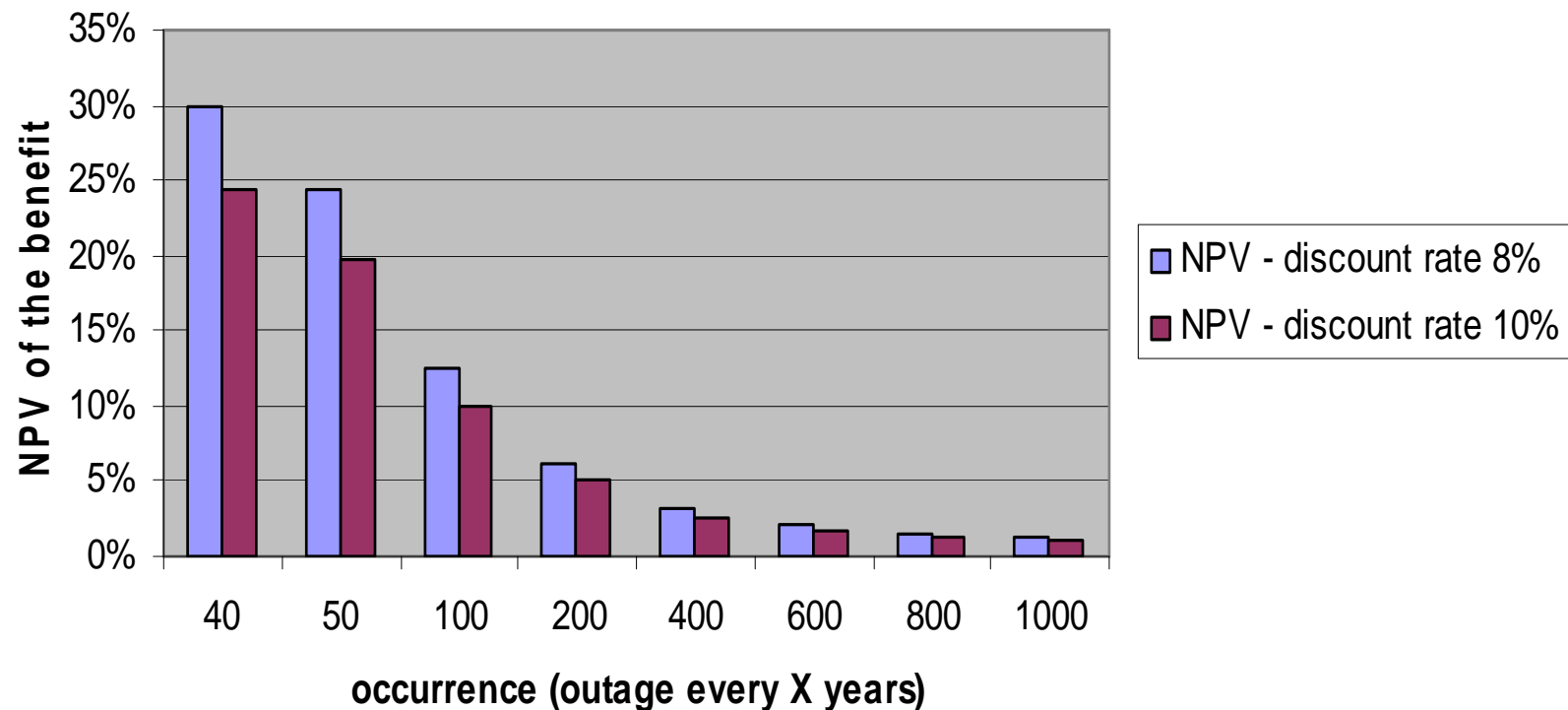


# Short overview of the financial modeling

# Short overview of the financial modeling: key sensitivities

sensitivity of economic value to probability of outage



# Short overview of the financial modeling

## Proxy to probability of occurrence of outages

Generic figures for quantification of occurrences	
Event taking place or likely to take place <b>every day or week</b>	About 100 times per annum
Event taking place or likely to take place <b>every month</b>	About 10 times per annum
Event taking place or likely to take place every year ; <b>already occurred on the site or occurred several times on other sites</b>	About once per annum
Event likely to occur in the life of an installation ; <b>never occurred repeatedly on the site but was observed regularly on other sites</b>	About 10 <sup>-1</sup> per annum
Event unlikely to occur in the life of an installation ; <b>never occurred on the site but was observed sometimes on other sites</b>	About 10 <sup>-2</sup> per annum
Event shouldn't occur in the life of an installation ; <b>never occurred repeatedly on the site and was observed very seldom regularly on other sites</b>	About 10 <sup>-3</sup> per annum

# Short overview of the financial modeling

## Recalling «wait & see » and mitigating strategies

LANSA ANS at Borax was destroyed by a fire

**What is the total loss for the airspace users and the passengers under the two candidate mitigating strategies?**

**Simulations** indicate that the overall state impact, **per day**, would be as follows:

- Flights cancelled 1080
- Re-routings (mins) 2469
- Ground Delays (mins) 17061

Capacity restoration would follow approximately the following pattern:

Number of Days spent in recovery step				
Restored Capacity	0%	25%	50%	75%
Wait and See (no Service Continuity)	30	100	200	770
Training/simulator Borax		1	5	1094
Co-located in Galena	5	10	1085	

# Short overview of the financial modeling

## Analysis for the airspace users

Current loss if & when the outage occurs:

- Loss in case of « wait and see » € X million
- Loss in case of mitigating strategy € Y million
- Benefit resulting from mitigating strategy €(X-Y) million

Present & probabilistic value of benefit: € f(X-Y) million

Discounted costs of mitigating measures: € Z million

Net benefit of investment in contingency: € f(X-Y) -Z million

CBA ratio of mitigating strategy :  $f(X-Y) / Z :: 1$

# Short overview of the financial modeling

## Analysis for the ANSPs

(Before application of rate of discount and probability of outage)

- Current loss of Route & TMA charges, « wait & see » scenario: €X million
- Current loss of Route & TMA charges, SC scenario : €Y million
- Current Benefit of service continuity: €X-Y million

# Short overview of the financial modeling

## Analysis for the airports & local economy

(Before application of rate of discount and probability of outage)

- Current loss of revenues, « wait & see » scenario: €X million
- Current loss of revenues, SC scenario : €Y million
- Induced & indirect effects (15%): €0.15(X-Y) million
- Current benefit of service continuity: €1.15(X-Y) million

# Short overview of the financial modeling

## Analysis for the passengers

(Before application of rate of discount and probability of outage)

- Current losses under « wait & see » scenario: €X million
- Current losses under SC scenario : €Y million
- Current Benefit of service continuity: €X-Y million



# Short overview of the financial modeling: ranking the mitigating strategies

<b>Present value of benefits for:</b>	<b>Strategy 1 Training/simulator Borax</b>	<b>Strategy 2 Co-located in Galena</b>
<b>Airspace users</b>		
<b>ANSPs</b>		
<b>Airports &amp; local economy</b>		
<b>Passengers</b>		
<b>Total</b>		