

Applying Risk Management To Law Making

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SD INCOSE Mini-Conference
November 5, 2016



Risk Management Definitions

- ▶ Background
 - ▶ **Risk Definition***: An uncertain event or condition that, if it occurs, has a positive or negative effect on a project's (or law's) objectives (enactment, operation, enforcement, cost).
 - ▶ Risk = probability of occurrence x impact of occurrence
 - ▶ Risk is a normal element of projects and law making, it is neither good nor bad.
 - ▶ Balancing and managing risk vs reward is the challenge

Risk (potential loss)



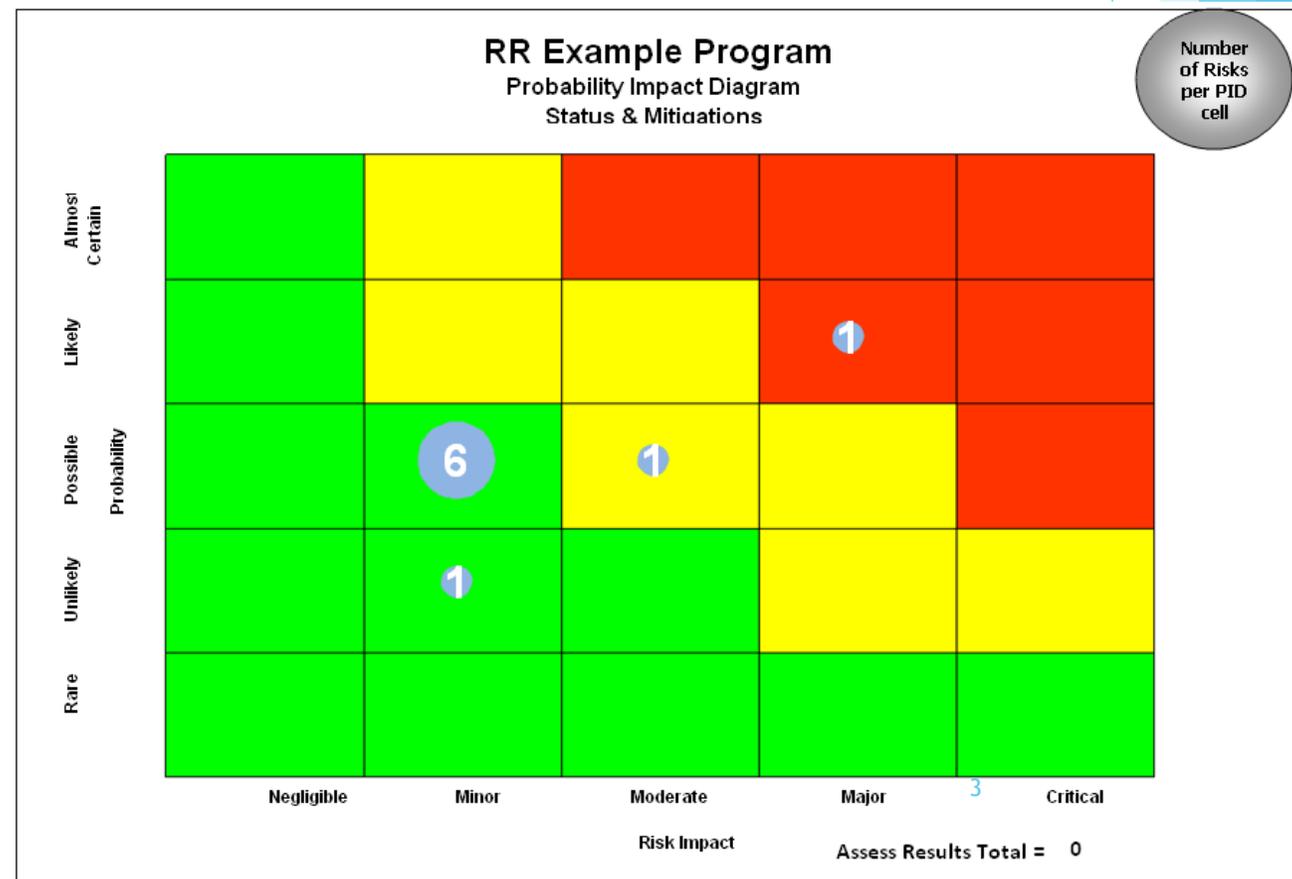
Reward (potential gain)

- ▶ Effective risk mitigations is how we achieve this balance

Probability Impact Diagram

- Definition: An X by X graphic displaying the combined probability of occurrence for a specific risk and the impact to the project/law should that risk occur

- The red, yellow, and green zones are defined based on the risk tolerance defined by your organization



Risk As It Relates To Law Making

- ▶ Accomplishment Risk - Risk that the law will not achieve its intended purpose (whether stated or not).
 - ▶ Poor implementation or enforcement; executor ignores or misinterprets law
 - ▶ Poorly written: ambiguous, incomplete, unenforceable, unconstitutional
- ▶ Unintended Consequences Risk - Law causes consequences that were not intended by law makers
 - ▶ Directly related consequences - often known in advance
 - ▶ Indirect consequences - usually unknown in advance
- ▶ Cost Risks - Unintended or unplanned costs to implement, enforce, or affect to economy, i.e. businesses, organizations, and individuals
 - ▶ Poor or incomplete estimates of cost to implement, enforce, execute
 - ▶ Inflexible to changes in environment, circumstances, common beliefs/ attitudes

Risk As It Relates To Law Making

- Examples of Accomplishment Risk

▶ Poor Implementation or Enforcement

- ▶ City of Encinitas not allowing builders to build in higher density if they provide low income housing
- ▶ Insufficient police support to enforce; i.e. parking regulations, cellphone use in cars
- ▶ Judges who do not enforce law requirements due to bias, disagreement, interpretation with law (CA bullet train?)

▶ Poorly Written

- ▶ Affordable Care Act (Obamacare) - overly complex, ambiguous, unconstitutional in part, incentives vs penalties out of balance, etc.
 - ▶ Law makers giving implementers too much authority to interpret what law really means and how it will be enforced (equivalent of poor system requirements)
- ▶ CA law to incentivize builders to include low income housing in developments by allowing greater density; ambiguous if the number of units allowed is x.5, do you round up or down to get allowed unit number

Risk As It Relates To Law Making

- Examples of Unintended Consequences Risk

- ▶ Dodd-Frank: significant new regulations on banks; significant fines allowed; does not specifically cause big banks to divest and get smaller
 - ▶ Very difficult and expensive for smaller banks to comply, results in less smaller banks, more mergers
 - ▶ Big banks (too big to fail) get bigger because they can better absorb compliance and increased costs
 - ▶ Large fines remove capital from banking system, transferring it to Government, thus leaving less capital in private economy for loans to promote economic growth (works against what the Federal Reserve has been pushing for the last 5 years)
 - ▶ Large fines ineffective because they hurt shareholders and the economy; not the perpetrators of the bad behavior



Risk As It Relates To Law Making

- Examples of Unintended Consequences Risk

- ▶ Marijuana Laws - High taxes on legal sales encourage the continuation of black market sales
- ▶ Proposition 61 on CA ballot - may increase drug costs for Veteran Administration and other medical patients
- ▶ Propositions C & D in San Diego City - what are the consequences of increasing hotel taxes to 16.5%? will it reduce tourism in SD?
- ▶ Original 3 strikes law in CA - resulted in over crowded prisons with 25-year-to life sentences for many non-violent criminals and for many less serious crimes such as shoplifting;
- ▶ USA Corporate Taxes Higher than Other Countries
 - ▶ Corporations move to other countries
 - ▶ Corporations do not bring international wealth back to US thus not investing in US and contributing to growth in jobs and economy



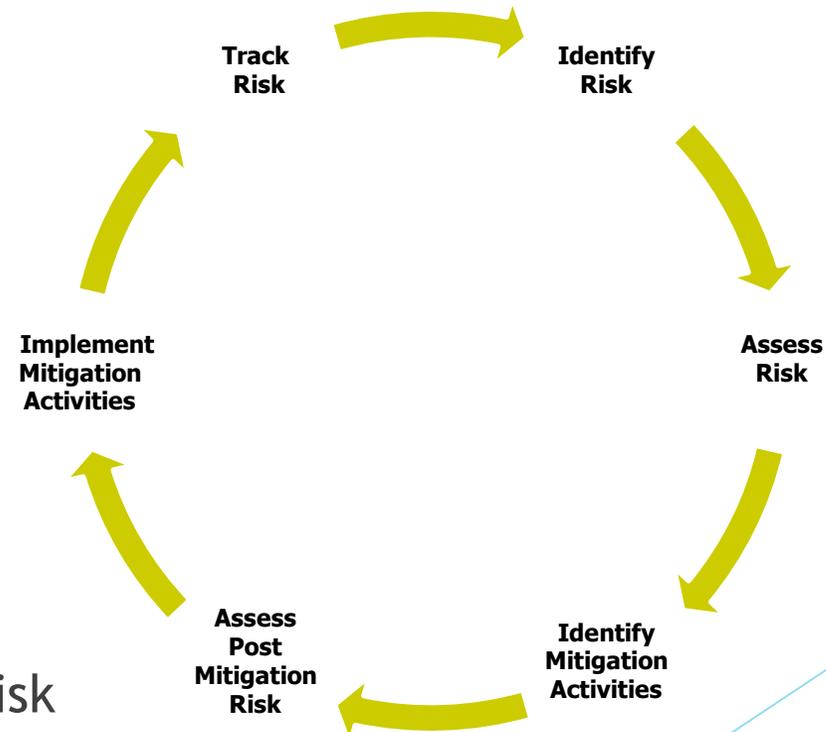
Risk As It Relates To Law Making

- Examples of Cost Risk

- ▶ 1999 Law giving large pension increases to CA state workers
 - ▶ Very poor and unrealistic estimates of future investment returns
 - ▶ Inadequate analysis and understanding of increasing life spans
 - ▶ Inflexible to future economic changes and circumstances in CA economy
- ▶ Affordable Care Act
 - ▶ Poor initial cost estimates; not properly modeled; bias in estimating
 - ▶ Too many promises not supported by budget analysis;
 - ▶ No cost risk analysis that clearly looked at alternatives and consequences
 - ▶ No mitigation actions defined to address potential cost risks
- ▶ California Bullet Train
 - ▶ Very poor estimates of cost
 - ▶ No funding identified for entire project, will it be completed or is it a “train to no where”?

Risk Management Functions

- ▶ Risk management should be a continual, iterative and dynamic process that takes place over the life of the law
- ▶ The **legislators, supported by staff (including system engineers) and constituents**, should have the responsibility for identifying and managing risks that can result from the law enactment.
- ▶ One key to managing risk in law making is to build in flexibility to modify law if certain consequences (risks) occur. However, planning for risk mitigation is not required or accomplished.



Role of the System Engineer in Risk Management of Laws

- ▶ Identification - during law formulation and throughout law enactment, system engineers can lead effort to identify risks
 - ▶ See next chart
- ▶ Mitigation formulation - ensure a balanced approach across all affected parties to optimize cost and consequences to meet intent of law
 - ▶ Determine potential changes to law to avoid or mitigate unwanted consequences or costs
- ▶ Monitor risk development/status as law is implemented and matures
 - ▶ Continue to monitor law to ensure it is meeting its intended purpose and not causing additional negative consequences or unplanned costs
- ▶ Management of risk mitigation activities - important to ensure mitigation activities are timely and achieve objectives
 - ▶ When risk profile indicates law needs changing, manage the changes in a manner similar to the initial law enactment risk process
- ▶ Closure of risks - objective analysis to ensure risk as been mitigated or it is no longer a concern

Proposed Risk Identification Activities

- ▶ During Law Making and After Implementation
 - ▶ Conduct law performance sessions with implementers and constituents to identify risks, mitigations, and responsibilities
 - ▶ Identify possible unintended consequences (risks) both technical and cost
 - ▶ Model law operation, potential unintended consequences, costs, population behavior, etc.
 - ▶ Prepare/Update a risk register (list/spreadsheet) of identified risks including the following information: (search “risk register” for templates)
 - ▶ Description of risk, its type/category and an ID number
 - ▶ Risk impact statement - what effect does it have on law implementation success and cost?
 - ▶ Probability of occurrence (likelihood) and impact of occurrence (consequence)
 - ▶ Risk severity (rank) (where it lies on the PID)
 - ▶ Risk owner to which it is applicable (i.e. law maker, implementer, constituent)
 - ▶ Define mitigation activities both prevention and contingency, and the reduction in risk (probability or impact or both) that occurs from mitigation activity; state when mitigation activity is needed; state residual risk remaining; and cost of mitigation
 - ▶ Estimate the event and/or time period when risk may be closed

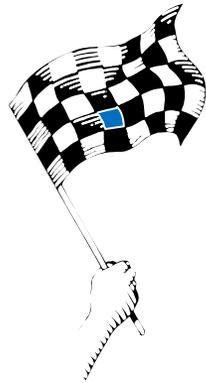
Concluding Comments

- ▶ Laws can be thought of as systems being developed and deployed
 - ▶ Systems engineering is necessary for beneficial laws with minimal risks
 - ▶ Laws are like system requirements; they need to be necessary, unambiguous, concise, complete, consistent, realistic (bounded and implementable), affordable, enforceable, and accomplish the desired goals without creating unreasonable risk to constituents
- ▶ For public safety, and for laws that benefit society at reasonable cost, risk management is a necessity
 - ▶ Needs to start at law formulation and continue through implementation and operation

References and Contact

Risk Management References:

- INCOSE Systems Engineering Handbook, 4th Edition, July 2015, Section 5.4 Risk Management Process
- A Guide to the Project Management Body of Knowledge, 5th Edition, multiple sections



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