# IT Project Risk

An actuarial view

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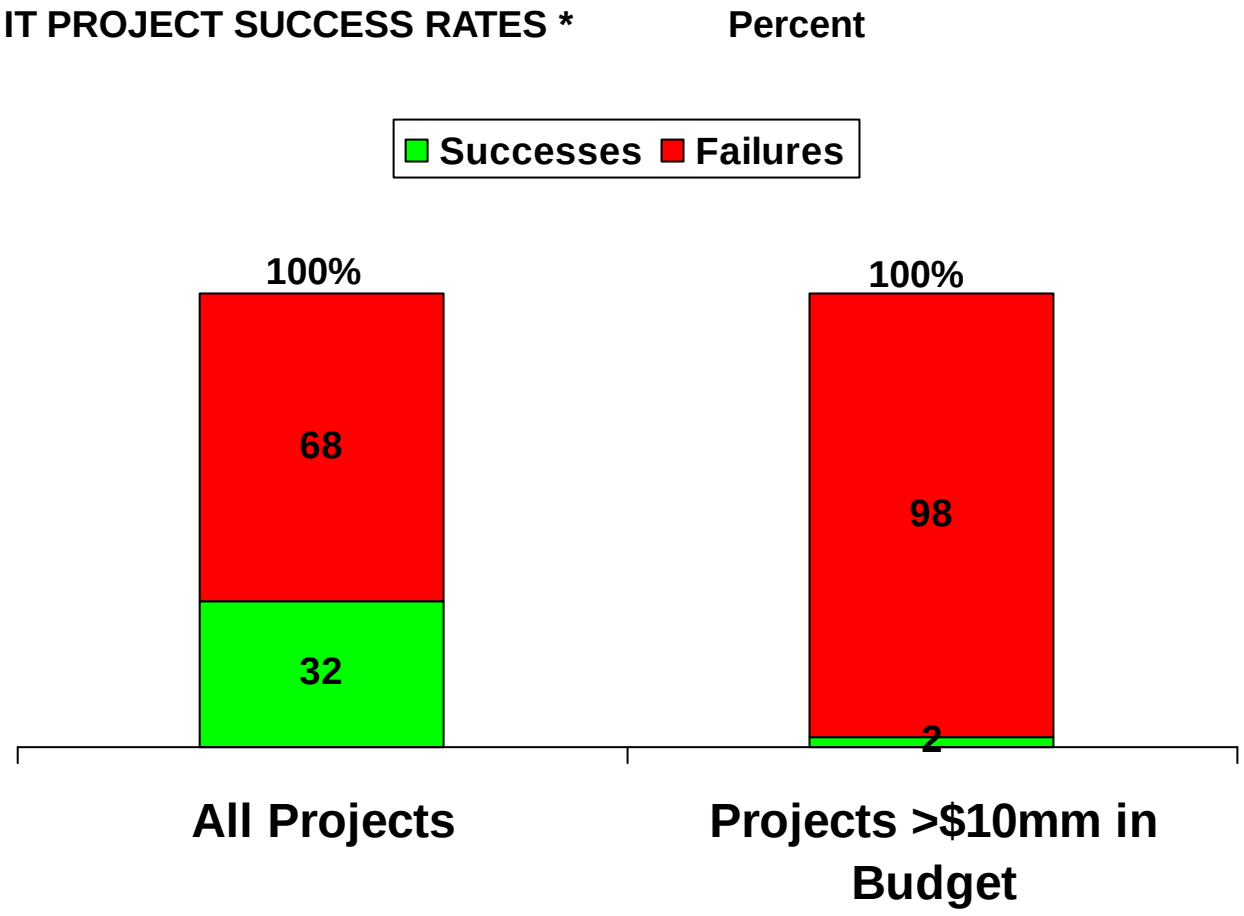
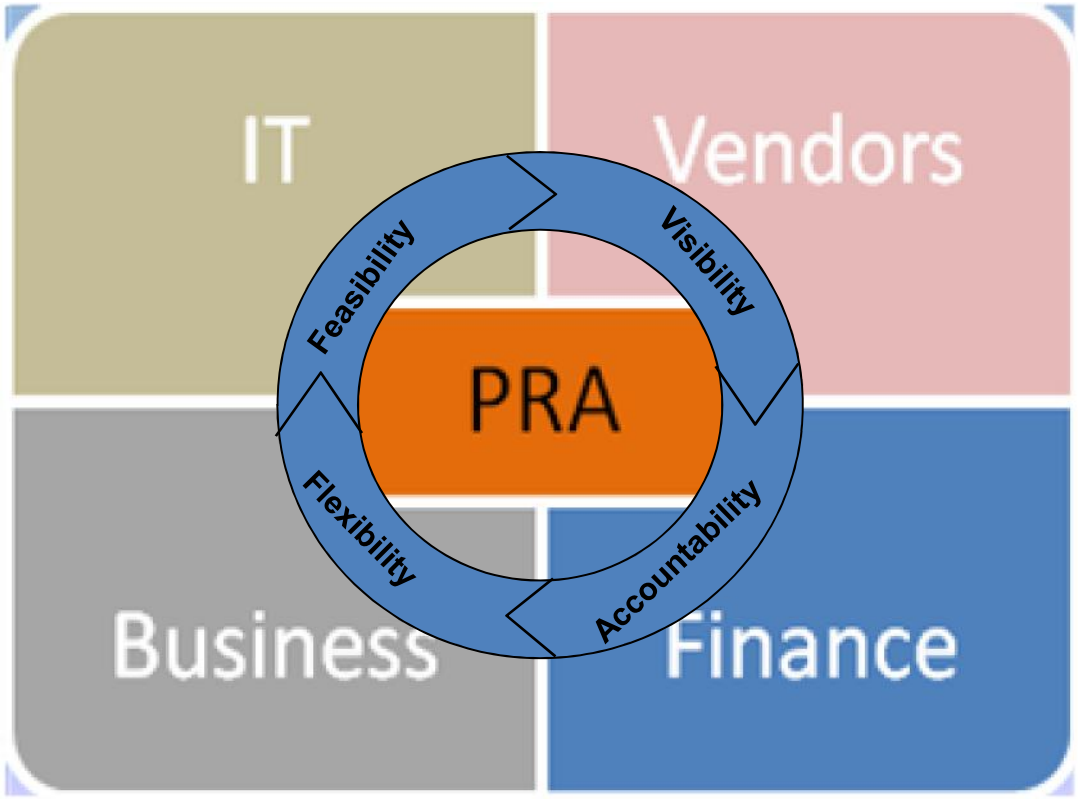
# Why look at IT risk?




* Standish Group, 2009 Chaos Report. "Failure" means a project was late, over budget, or failed to deliver promised functionality. Of the 68% of projects that failed, 44% were partial failures and 24% were complete failures

# Project stakeholders often initiate overly risky projects*

PROJECT-RISK ASSESSMENT (PRA)




Typical Causes of Failure

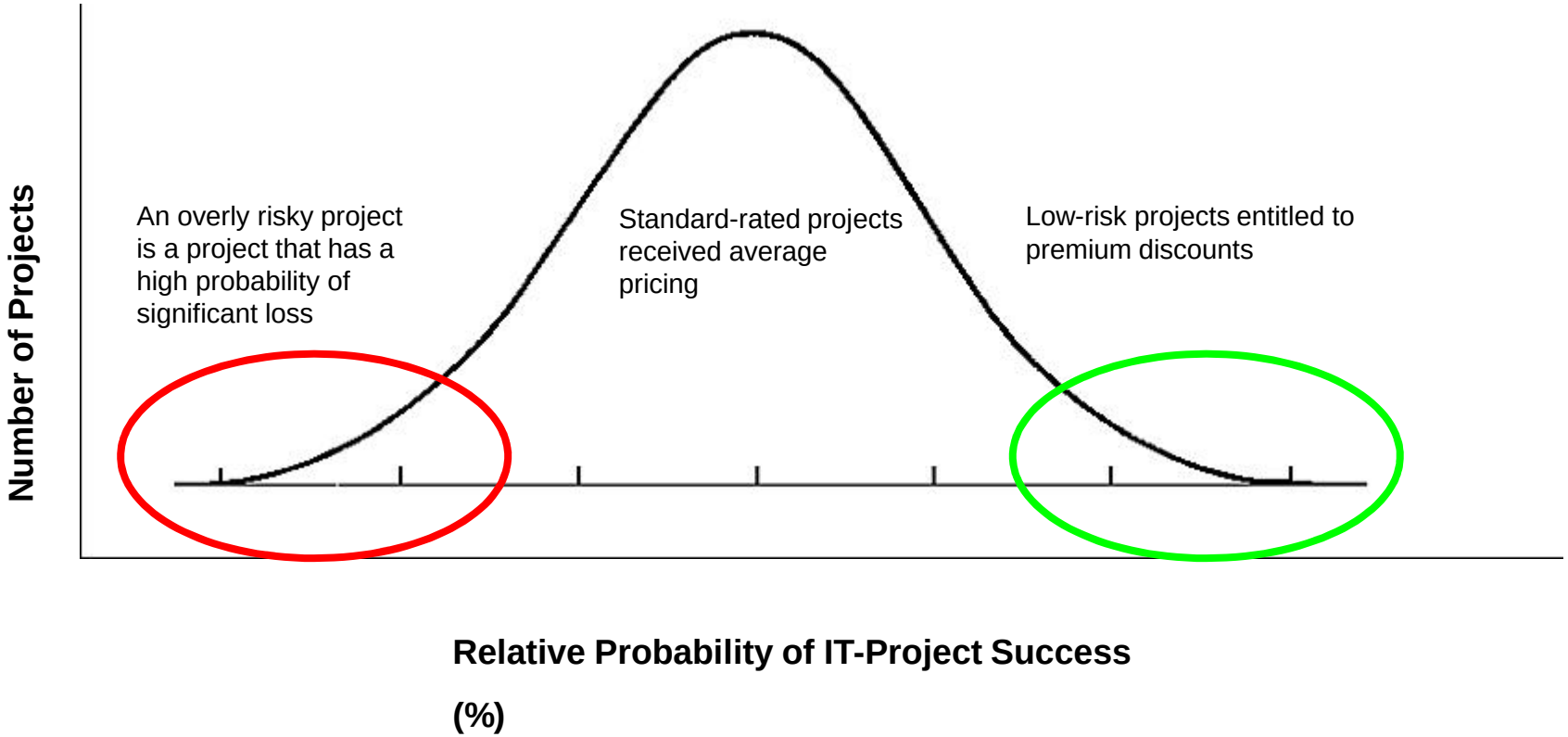
- Infeasible project plan
  - Misalignment among stakeholders
  - Inadequate project definition
  - Inadequate scheduling and resources
- Poor visibility
  - Inadequate governance and reporting
- Lack of accountability
- Lack of flexibility



* The term “project” also includes scope increases

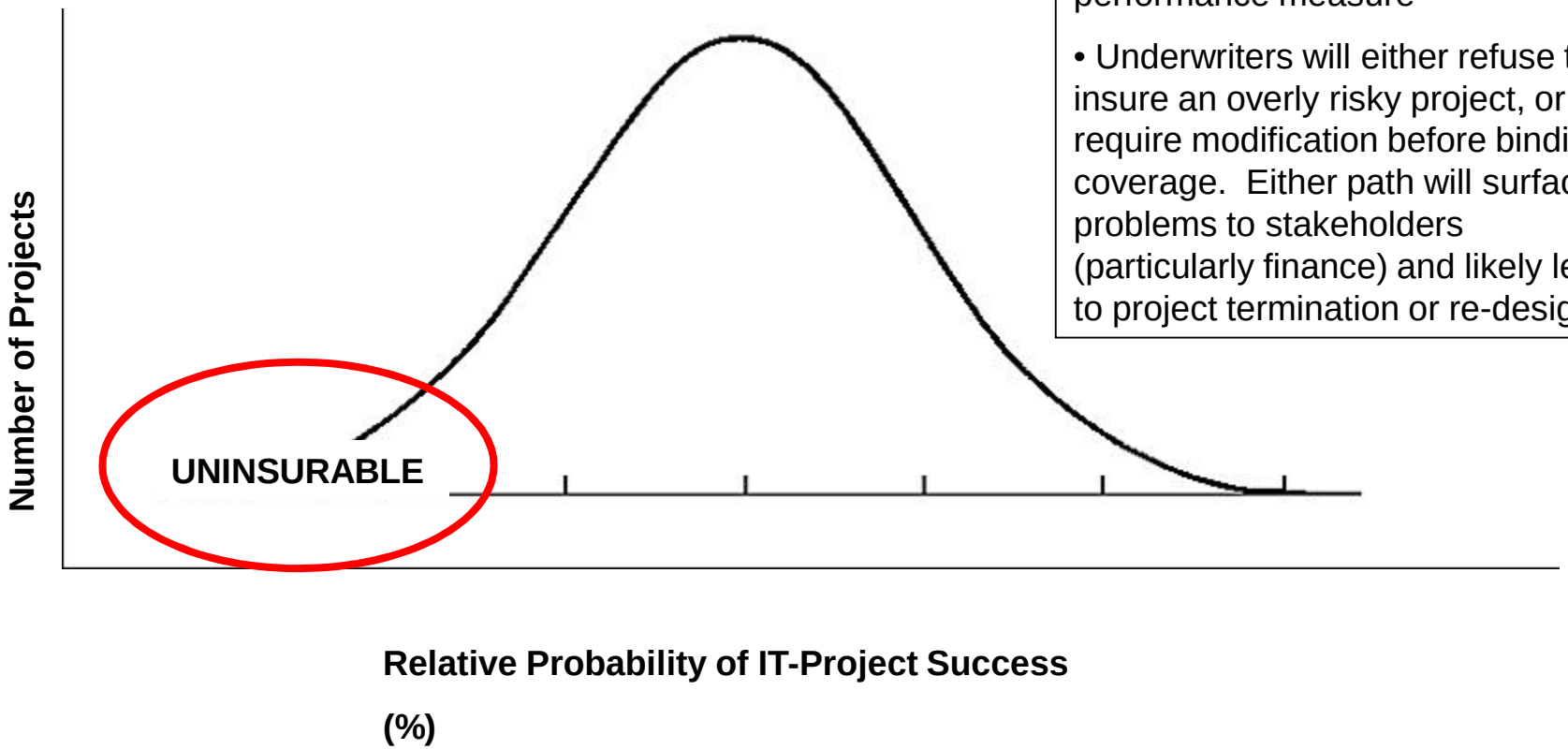
# Underwriting analysis can identify these projects

RELATIVE PROBABILITY OF PROJECT SUCCESS



# Refusal to insure will likely forestall such projects or lead to their modification, improving success rates

RELATIVE PROBABILITY OF PROJECT SUCCESS




- Focusing on a single, financial metric – the loss ratio – aligns underwriters with end user's bottom line and provides a simple, clear performance measure
- Underwriters will either refuse to insure an overly risky project, or require modification before binding coverage. Either path will surface problems to stakeholders (particularly finance) and likely lead to project termination or re-design

# Actuarial/Underwriting process for IT

- Use actuarial techniques to “price” IT project risk at the project level AND portfolio level
- Use underwriting techniques to review risk specific concerns, that can in turn inform the actuarial pricing model (schedule credits/debits)
- Improve a companies bottom line by eliminating poor projects before they begin and reducing the risk on other projects
- This process also better informs the business on how to “pay” for IT services

# Basic Model Assumptions

## Frequency

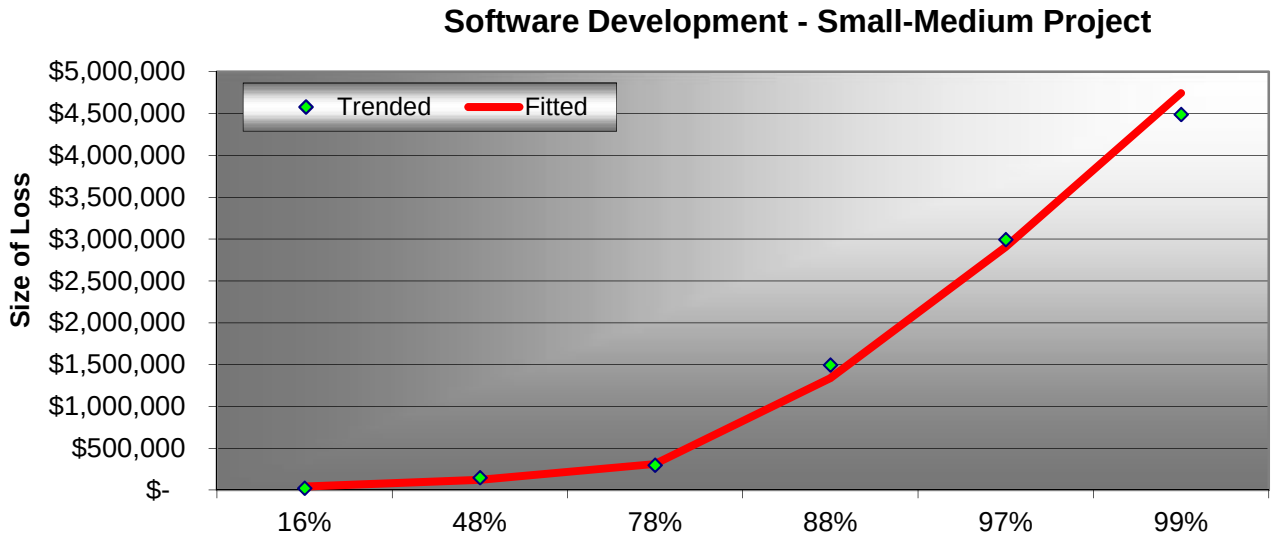
CHAOS Report reports 29-62% Failure Rates for Small-Medium Projects (Higher failure rates for larger projects)

**We have selected a 40% frequency of claim occurrence, based on these studies.**

## Severity

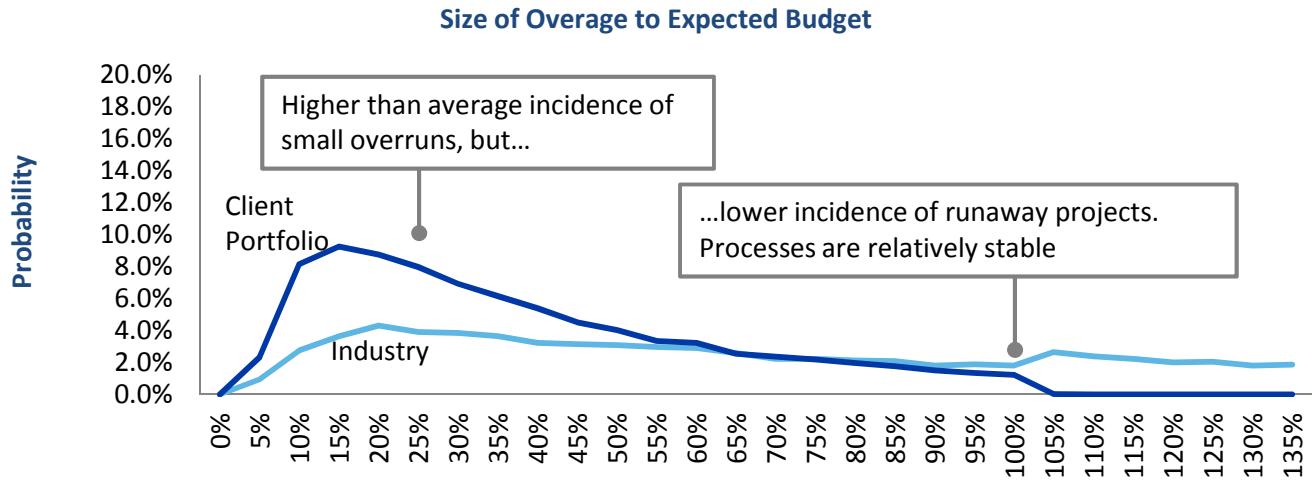
CHAOS Reports the following loss distribution (modeled below):

- Under 20% Over-budget - 16.0% of projects
- 21 – 50% Over-budget - 32.0% of projects
- 51 - 100% Over-budget - 30.0% of projects
- 101 - 200% Over-budget - 10.0% of projects
- 201 - 400% Over-budget - 9.0% of projects
- Over 400% Over-budget - 3.0% of projects



# Project & Portfolio-Based Risk Analysis

**Case example of project portfolio of Business Process Outsourcing vendor's internal implementation group**




**Case Examples**

**Reducing overruns by 20% through sub-budgeting**

- Actuarial analysis showed that breaking projects into sub-budgets (requirements gathering, coding, unit testing, QA, etc.) reduced Implementation-Group overruns by 20%

**Improving Implementation-Group Pricing**

- Actuarial analysis showed that different sub-budget categories had different risk characteristics. Bidding projects based upon the relative size of sub-budgets would result in more accurate, risk-adjusted pricing

**Gathering experience v obscuring accountability**

- Review of client's process for assessing lessons learned after projects completed showed lack of rigor: (i) no clear definitions and usages existed for either project phases/sub-budgets or root causes of overrun/delay/impairment; (ii) where a loss arose from more than one cause, no effort was made to allocate degrees of causation; (iii) key data, such as the names and roles of stakeholders and development staff, was missing
- In short, rather than gathering experience and applying lessons learned, the client's process appeared to obscure accountability
- Client received recommendations on process improvements, as well as a customized loss model that could be refined through data from the improved process

# Project Risk Assessment Excerpt

### 5.1. Project Managers [Score – 8 out of 25]

Management for this project is comprised of a project manager (PM) who was requested by the customer, an implementation manager (IM) and several control account managers (CAMs). There are some inconsistencies within the team with regards to what each of these roles involves and how they relate to each other on the project. A learning curve has been identified in terms of specific domain knowledge (specifically regarding defined benefits), new processes and tools and team structures. This has been identified as contributing to greater likelihood of misinterpretation, more effort required for communications and greater chances of misunderstanding (and underestimating) risks and scope.

**Recommendations**

- Identify and evaluate any learning curves to be addressed and plan mitigations.
- Update project plans and schedule to account for impacts of learning curves.
- ***Impact to score: +4.5***

### 5.2. Project Risk Management [Score – 8 of 20]

Risks are tracked in an Excel spreadsheet during status update meetings. Internal and external risks are tracked separately and shared with different stakeholders as applicable. This project has been described by the project team as being riskier than the average Incoming Vendor customer engagement. The team has identified that opportunities exist to better define strategy and procedures regarding how project risk management will be executed.

**Recommendations**

- Complete the formal Risk Management plan ASAP.
- Re-evaluate project risks and impacts once the new scope has been finalized.
- Ensure that the project schedule includes time for risk management and issue resolution.
- ***Impact to score: +2 to +4***

### 5.3. IT-Business Communications [Score – 4 of 10]

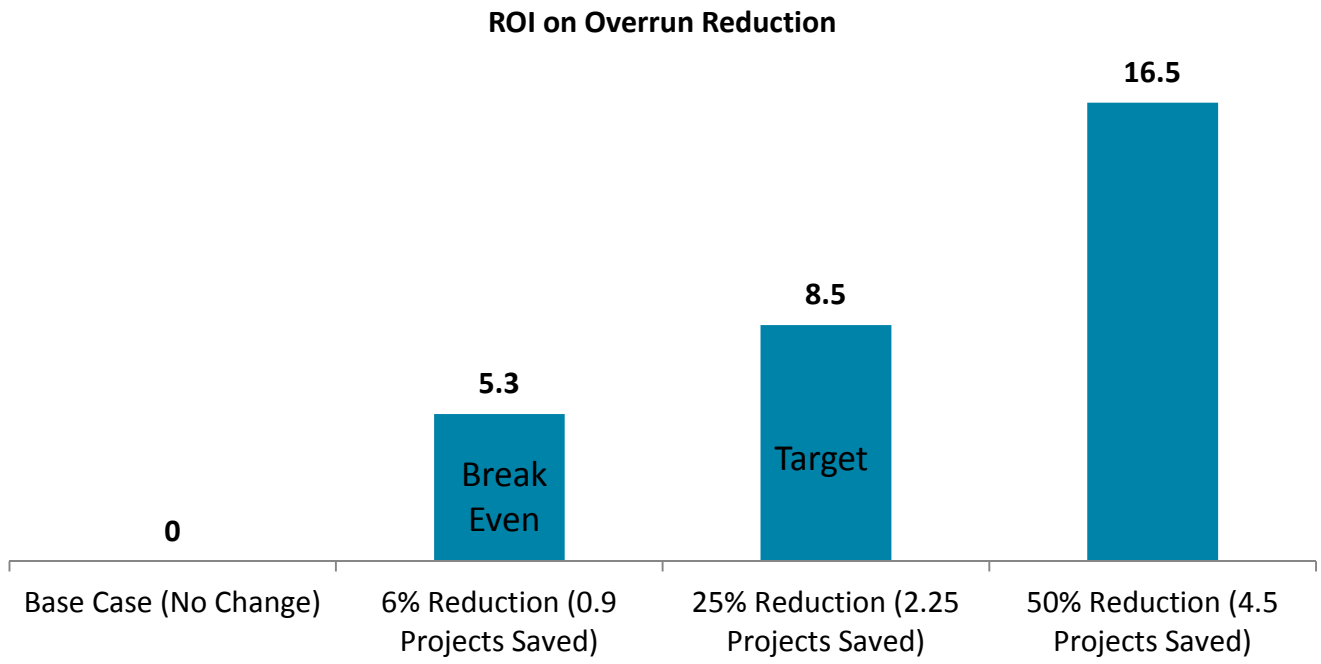
No formal communications plan currently exists for the interfaces between business users and IT, or within the IT team itself. Team-member interviews suggest that information has not been flowing as well as it could be in certain areas. For example, some team members have been caught off-guard on customer calls with information that had not been communicated to them internally

**Recommendations**

- Complete the formal communications plan and distribute to all team members.
- Improve internal flow of information, particularly before discussions with Client or Client SI Consultant
- ***Impact to score: +1 to +2***

# Program Targeted A 25% Reduction In Overruns For 8.5x ROI

2012 Implementation Budget $ Million




* Estimated indirect ROI from avoiding project failure is 5x-10x direct ROI. Paul Sessions, "The IT Complexity Crisis: Danger and Opportunity", ObjectWatch White Paper, November 8, 2009.

Questions?