

U.S. Aerospace Risk Analysis Survey

The following paper was published in the [Society of Cost Estimating and Analysis \(SCEA\) Journal of Cost Analysis & Management](#) in Winter-2001. The survey itself was sponsored by the Risk Sub-Group of SSCAG (Space Systems Cost Analysis Group) and has been published here with permission of the author.

By Hollis M. Black, III
Manager, Parametric Estimating
The Boeing Company, Space and Communication
Huntsville, Alabama

OBJECTIVE OF SURVEY

The purpose of this survey is to provide a broad view of cost risk assessment methods in current use. The survey depicts the methodologies in actual use, not recommendations. These findings provide a clearer understanding of the pragmatic techniques applied by Government and Industry analysts.

At best, this survey may prompt some agencies/companies to consider new approaches, quantitative tools, or techniques. At a minimum, it provides analysts a better understanding of how their techniques compare with the unseen norm in U.S. aerospace. The end game is improved decision analysis.

BACKGROUND

Increasingly, Government customers and Industry contractors seek better methods to identify and manage technical, schedule, and cost risk. Over the past 30 years, extensive literature and symposiums have promoted "best" methods (qualitative and quantitative). Cost Analysts and Estimators have been exposed to multitudes of methods, each with unique benefits.

What has been missing, however, is a distilled view of those methods, as applied by Government and Industry. Often, analysts lack confidence in their chosen methods; and are uncertain they are up to date.

GUIDED SURVEY

The four-page, guided questionnaire was provided to 300 attendees at the joint international ISPA/SCEA/SSCAG conference in Toronto, 1998, with a total of 61 responses from 35 agencies and companies. Names and organizations were optional, but only 25% chose to remain anonymous. No effort has been made to link organizations with risk assessment techniques.

Although several individuals responded from different segments of the same agency, all responses are included to provide the broadest view of all segments. Companies involved in technology development (e.g. software, electronics, and biotech) often find that their project investments produce disappointing results. Managers of these engineering-centric companies intuitively understand that their businesses are fraught with risk, yet often lack the tools and a methodology to effectively manage the risks they are confronted with.

 [Click here to download the document](#)