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MECHANISMS LINKING GOVERNMENT OVERSIGHT TO WORK PERFORMED BY ENGINEERS

**Abstract**

Government oversight greatly influences the development of space systems. The activities related to oversight are necessary for monitoring and controlling risk, but they can also add extra costs to a program. Many industry officials and some government officials believe that oversight can lead to additional activities that result in program cost and schedule growth. This idea is usually based on experiences working in industry rather than an academic study. This research investigates this conventional wisdom.

This paper details an in-depth study of government oversight by studying its impacts on engineers in the aerospace industry. We conducted over 80 interviews with employees in managerial positions and at the working level. The interviews were conducted with individuals working for a prime contractor/systems integrator, government, and government support contractor. Using semi-structured interviews, we gathered information on each participant's role in his/her organization, daily tasks, and the ways his/her job is related to government oversight. The interviews were transcribed and then coded to identify different mechanisms linking oversight to the work performed by each individual. These codes were then refined and iterated until the point of theoretical saturation. This inductive process for developing codes and categories shows a representation of oversight and its influence on engineers' work rather than imposing a framework developed by the researchers.

The findings from this study show that the level of oversight is contingent upon the stage of development of a project as well as the total mission-risk profile. The level of oversight related to mission assurance activities change over the lifecycle of a product; FAR-based contracting requirements are more constant. We find that government oversight increases to the point of a critical design review then decreases as a product moves into manufacturing and deployment phases. This unique bottom-up understanding provides a basis for identifying legacy processes and future data-driven acquisition reforms.