

APPLYING RISK ASSESSMENT AND ROBUST GOAL PROGRAMMING TO THE UNITED STATES TRANSPORTATION COMMAND'S RATE SETTING PROBLEM

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ABSTRACT

The United States Transportation Command (USTRANSCOM) is responsible for the technical direction and supervision of over \$7 billion of annual passenger, cargo, mobility, and personal property movements in support of the Department of Defense. As a government entity, USTRANSCOM seeks to neither make a profit nor operate at a loss in any given year, while also attempting to produce robust annual rates. We employ robust goal programming (RGP) to the USTRANSCOM rate setting problem in an attempt to minimize deviation away from their many goals. Additionally, we investigate the impact of applying RGP in concert with additional epsilon-constraints as it pertains to the USTRANSCOM rate setting problem.

Keywords: transportation rate setting; robust goal programming; decision analysis; risk attitude; epsilon-constraint