

## How do I apply quadratic programming to analyze OR financial data?

Quadratic programming in OR management was described originally in the paper: [Managing risk and expected financial return from selective expansion of operating room capacity: mean-variance analysis of a hospital's portfolio of surgeons \[PDF\]](#). Also use the follow-up papers: [Tactical decision making for selective expansion of operating room resources incorporating financial criteria and uncertainty in sub-specialties' future workloads \[PDF\]](#) and [Tactical increases in operating room block time based on financial data and market growth estimates from data envelopment analysis \[PDF\]](#). Individuals knowledgeable in operations research usually ask about applying Fieller's method to calculate the variance for the assessment of contribution margin per OR hour by surgeon. The equation used is that given in reference 6 below equation (6). For individuals without experience, I recommend reference (5) to learn about quadratic programming. [Click here](#) for information about the Division of Management Consulting performing the analysis with you (i.e., so that there is simultaneous education). [Click here](#) for a lecture on the topic.

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