

# **Process Targeting With Multi-Class Screening And Measurement Error**

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## **Summary**

In this paper, a Process Targeting model for a three-class screening problem is developed. The model extends the work in the literature by incorporating a measurement error present in inspection systems. The strategy adopted, to nullify the effect of measurement error, is to introduce the concept of 'cut-off points', i.e. the decision during inspection is based on these cut-off points rather than specification limits of the various product grades. This model considers cut-off points as decision variables. In addition, an illustrative example is presented that compares model performance with the model presented in Min and Jang (1997). Sensitivity analysis is also conducted to study the effect of various model parameters, particularly measurement error on expected profit, optimal process mean and cut-off points.

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