

國立高雄大學統計學研究所
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題目：Skew Normal Distribution and the Design of Control Charts for
Averages

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摘要：

The paper develops two new control charts and process capability ratios based on the skew normal distribution to monitor the process average and evaluate the process capability of non-normal data. Both control charts reduce to Shewhart-type control charts when the underlying distribution of quality characteristic is symmetric. A simulation study is conducted to compare the performances of the proposed control charts with those of existing control charts. Simulation results indicate that considerable improvement over those of existing control charts can be achieved when the proposed control charts are used to monitor the process average of non-normal data. Two examples are presented for illustration.

指導教授簽名：