Abstract

We develop and test an integrated forecasting and stochastic programming approach to workforce management in call centers. We first demonstrate that parametric forecasts can be used to drive stochastic programs whose results are stable with relatively small numbers of scenarios. We then extend our approach to include forecast updates and two-stage stochastic programs and test the performance of these schemes using two large sets of call-center data.

Authors

Noah Gans, Haipeng Shen, Yong-Pin Zhou, Nikolay Korolev, Alan McCord, Herbert Ristock