



Editorial

Operational Research in Government

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This Special Issue on OR in Government has been produced to highlight the work of OR groups within government service and of independent OR providing advice to government. In addition, the role of OR in commenting on policy making is featured in this issue. The papers appearing in this issue illustrate the diversity of OR in Government and include work from a number of different countries. The papers appearing in this issue cover areas as diverse as policing, housing, health and emergency services, defence and local government. It is interesting to note that the work has been conducted by practitioners, academics and mixed teams.

The first paper by Turner provides a review of Civil OR in UK Central Government. In this paper, Turner provides details of how OR in UK Government has expanded over the last 20 years and provides a SWOT analysis of its prospects. He shows how OR is present in strategy, policy and operational aspects of government. He also gives a flavour of some of the recent projects carried out by OR analysts in areas as diverse as criminal justice, children's policy, cigarette smuggling, forecasting school pupil numbers, locating enquiry centres for HMRC, health preparations for a flu pandemic, measuring benefit fraud and error, and evaluation of Jobcentre Plus and call centres.

The next two papers consider the role of OR in Policing activity. In the first of these, Newsome describes how systems dynamics modelling has been used within a police force to assist understanding relationships between activity and performance, with a view to improving service management and decision making. In the second paper, Pidd describes the use of simulation to evaluate whether a proposed call management system would perform better than the existing system and increase the speed at which police command and control centres respond to calls for assistance.

The next two papers consider the use of OR in a housing context. In the first of these, Rappos and Thompson describe work within the Department of Work and Pensions (UK) to better handle Housing Benefit. In this technical paper it is shown how a simple integer programming model can be used effectively. In the second of these papers, Jackson, Johnston and Seddon demonstrate the use of a systems thinking approach (lean systems) to evaluate and improve the delivery of housing management and maintenance systems within a social housing context.

The two following papers have a financial flavour. In the first of these, Calvert and Kaufman use a real options approach

to analyse decision making within Export Credits Guarantees. The paper describes how an in-house OR group can be very effective within a small UK Government department. In the next paper, Rios and Rios Insua describe work conducted in Spain to consider the group resource allocation problem within participatory budgets.

A paper by Lane and Husemann describes a UK health context and makes use of systems dynamics. The study was initiated by the Department of Health and was aimed at contributing to the work of the Emergency Services Action Team. A series of workshops was run to channel ideas and create a 'database' of knowledge.

In a paper on defence, Gardener and Moffatt draw on ideas from game theory and apply these in defence acquisition. The work takes place in the context of major projects that fail to meet original cost and time estimates.

The next two papers highlight the use of data envelopment analysis (DEA). In the first of these, Seol, Lee, Kim and Park consider the impact of IT on organizational efficiency in public services in Korea. They use DEA to identify inefficient local governments. In the second paper, Cherchye *et al* create composite indicators with DEA and consider the Technology Achievement Index developed by the United Nations. Their study is broad-based internationally and considers the effect outlier countries have on the analysis.

Two further papers also consider projects overseas. In the first of these, Hahn and Knott use multicriteria decision-making methods to investigate fairness within US representation as determined from Census Bureau results. In the second paper, a rough set approach is used by Huang, Wu and Lee to consider competencies for Taiwan civil servants. The rough set approach is used to cut through data and simplify decision making.

This collection of papers provides a snapshot of some current work in the UK and overseas and gives testament to the way in which OR has moved out of traditional areas such as manufacturing industry to provide policy-making advice at influential levels. We hope that you enjoy reading the papers. Some additional papers emanating from the original 'call for papers' will appear in later issues of the journal.

We should like to thank all who refereed papers, particularly government OR colleagues who took on the task of reviewing which was well outside their normal line of work.

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