

## Centre For Health Economics Seminar Series 2017

# MANAGEMENT IN THE PUBLIC SECTOR: EVIDENCE FROM THE ENGLISH NHS ABSTRACT FOR HARVARD-MIT-STANFORD EMPIRICAL MANAGEMENT CONFERENCE

Presenter: Prof Carol Propper, Imperial College Business School  
Date: Wednesday 15th February 2017  
Time: 12.00pm -1.00pm  
Venue: RB Scotton Room  
Centre for Health Economics



### Abstract

This paper investigates whether top managers can affect organizational performance in the public sector. Public sector organisations are important in many countries not only in financing, but also in the delivery, of public services. The public sector organisational form is widespread in education, healthcare and local public service delivery. In the search for greater productivity in public service delivery, a popular political reform model is to grant these organisations greater freedoms from central control and to emphasise the role of local management and control.

In this paper we examine English public hospitals. This is an ideal setting to understand the role of top-level managers in the public sector. The English government has had a long-standing programme to give greater autonomy to public hospitals, with an explicit programme of reforms to subject them less to political direction and constraints and more to the discipline of the market. From the mid-1990s, English public hospitals operated as free-standing organisations, earning revenue from contracts won in competition with other public hospitals and, increasingly, private sector hospitals. They were subject to corporate governance reforms inspired by the private sector.

The importance given to managers in the English public hospital system is reflected in the freedom of hospital boards to set pay for top managers and in the levels of remuneration given to these managers. Figure 1 provides stark evidence of this. It shows how the pay of top managers has grown in real terms and that this growth far outstrips that of both senior clinicians and nurses employed in the English public hospitals.

As part of the reforms, English public hospitals are required to report the composition and remuneration of the top management team and to collect data on multiple aspects of their operations, including labour inputs, process measures and clinical and financial performance. Thanks to this rich data, we can examine whether top-level managers are rewarded for observed performance, whether managers causally affect hospital performance and - if so - which specific aspects of the multiple dimensions of performance they affect.

The basis of our analysis is a unique manager-firm matched panel data spanning 14 years. The panel contains data from a large number of government sources on managerial pay, together with a very rich set of hospital level data, including clinical and financial performance, labour and capital inputs, organizational choices (e.g. contracting out and day case proportion), and even staff job satisfaction. Some of these metrics are key political targets, such as financial performance and waiting times. The data enable us to track top managers across different hospitals over time and, thanks to the relatively large set of movers in the data, to examine whether these managers are associated with significant differences in remuneration and performance.

First, we examine whether there are manager fixed effect in pay, i.e. variation in manager pay above and beyond variation predicted by hospital fixed effects, year effects and a number of covariates that can be assigned to a

manager. Next, we examine whether manager fixed effects in pay are reflected in manager fixed effects in the many metrics of hospital performance included in the data. For a subset of managers, we can also examine whether these manager fixed effects are “portable” across hospitals. Finally, we examine whether there is evidence of managerial style in the sense of correlations in manager fixed effects across different hospital-level variables.

We find significant manager fixed effects in pay. Using the Abowd, Kramarz and Margolis (1999) approach, we find manager fixed effects account for around 40 percent of the variance in both basic and total pay, compared to a hospital fixed effect of around 15 percent. The difference in fixed effects between managers is relatively large: the interquartile range of the managerial fixed effects is £20,000 around a median fixed effect of £105,000. These fixed effects in pay are portable across hospitals: the correlation in manager effects in total pay across hospitals is 0.45, showing that managers retain higher than (or lower than) average pay as they move between hospitals.

However, there is much less evidence of manager fixed effects in the large number of hospital-level variables that we examine. The share of variance accounted for by manager fixed effects is rarely over 10 percent, while hospital fixed effects account for over 20 percent in measures of clinical performance and over 90% for some inputs such as beds and technology. Moreover, statistical issues mean these manager fixed effects may be an upper bound. The lack of manager fixed effects in hospital behaviour and performance is confirmed by a lack of portability. In contrast with pay, there are less hospital level variables for which manager effects are correlated across hospitals. However, focusing on managers with significant pay effects shows that there are a small number of variables which stand out as being more portable. These variables are all not output measures (either clinical or financial). Instead, with one exception, they are much more easily observed inputs or throughputs.

Katharina Janke, University of Bristol  
Carol Propper, Imperial College London  
Raffaella Sadun, Harvard Business School

## Presenter

Carol is a Professor of Economics in the Department of Management and Imperial College Business School, London. She joined the Business School as Professor of Economics in 2007 and was Head of the Healthcare Management group from 2007-2010. More recently she has held an ESRC Professorial Fellowship in the School since 2012. She is currently the Associate Dean for Faculty and Research in Imperial College Business School.

Before coming to Imperial, she held appointments at the University of Bristol (where she was a cofounder and director of the Centre for Market and Public Organisation); at the LSE (where she was Co-Director of the Centre for the Analysis of Social Exclusion 1997-2007); as Chair of the [ESRC](#) research grants board 2005-2009 and member of the ESRC Council 2005-9; as Advisor to the Chief Executive of the NHS 1993-4; as a member of the Royal Economic Society Council 2001-5 and as a member of the Council of the Royal Economic Society. She is a research fellow of CEPR, Europe’s network of leading economists, and a Research Fellow of the Institute of Fiscal Studies.

Carol was awarded a CBE for her services to social science in 2010 and elected as a fellow of the British Academy in 2014 (one of only two FBAs at Imperial College).

Her research interests are the impact of incentives on the quality and productivity of healthcare, the impact of environmental factors on health, and the effect of market incentives on the production of public service. She has published was awarded the Arrow Award for the best paper worldwide in the field of health economics in 2011 and the American Economic Association 2016 prize for the best paper published in the American Economic Journal: Policy.

## VISITORS ARE MOST WELCOME

The Seminar Series is free of charge. For further information please phone 9905 0733 or email [che-enquiries@monash.edu](mailto:che-enquiries@monash.edu)

## Over 25 Years of Health Economics at Monash University

