



# Are Star Performers More Productive?



**Mary O'Mahony**  
Birmingham



**Philip Stevens**  
New Zealand Ministry of Economic Development



**Lucy Stokes**  
NIESR

## Background

To evaluate any public sector organisation we need robust performance measures, but unlike the private sector – where the quality and quantity of outputs are more identifiable – public sector productivity is notoriously difficult to measure (Figure 1). From 2001 to 2005, the UK Government introduced star ratings to evaluate the performance of NHS Trusts in England. Numerous criticisms were levelled at star ratings and the associated target system by health professionals (including claims they led to financial imprudence and distorted clinical care for political reasons), but the relationship between performance on star rating-type performance measures and hospital productivity was unclear.

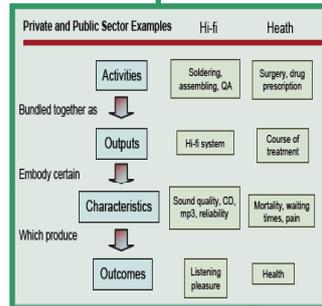


Figure 1

## What We Did

To measure outputs, and thus productivity (in the absence of the market prices used in the private sector to indicate the value of the services provided) of NHS Trusts, we placed data from the Hospital Episode Statistics database (which provides extensive information on all NHS hospital activities in England) within a theoretical framework that uses information on outcomes to estimate the nature of the services provided, for almost all NHS acute trusts in England between 1997 and 2004. This output measure was divided by labour input (drawn from DoH data on earnings and labour volume) to create a productivity index. The productivity index was then compared to existing measures and used to highlight the influence of background variables, such as relative deprivation, which could affect productivity of different trusts.

Key targets used in star ratings for acute trusts	2000/01	2001/02	2002/03	2003/04	2004/05
Shorter inpatient waiting lists	*				
Inpatients waiting longer than the standard	*	*	*	*	*
Reduction in outpatient waiting	*				
Outpatients waiting longer than the standard	*	*	*	*	*
Outpatient and elective (inpatient and day-case) booking				*	*
Cancer: % seen within 2 weeks (BC only)		*	*	*	*
Financial management	*	*	*	*	*
12 hours waits for emergency admission via A&E following decision to admit	*	*	*	*	*
Total time in A&E: 4 hours or less		*	*	*	*
Cancelled operations	*	*	*	*	*
Improving Working Lives	*	*	*	*	*
Hospital cleanliness	*	*	*	*	*

Figure 2

## Aims

Given that an ideal performance measure accurately quantifies performance, encourages improvements in the quality of the public service being delivered and avoids unintended consequences, our aim was to:

- consider what the desirable properties of such measures are, theoretically;
- evaluate how far existing measures in the NHS (such as the star ratings) satisfied these desirable properties;
- examine other potentially useful measures of performance, specifically a productivity index that measures the outputs of NHS Trusts relative to the inputs required to produce these outputs.

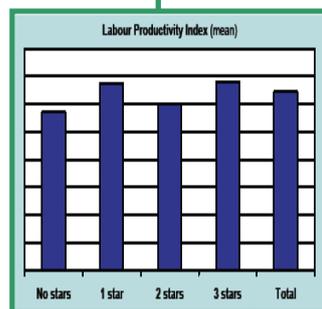


Figure 3

## Findings

- Surprisingly, there was no statistical relationship whatsoever between productivity and star ratings; we found huge variation between Trusts' productivity across and within star rating categories (Figures 3 and 4).
- A possible explanation is that key targets (Figure 2) put little weight on the financial aspects of performance for some rating levels, thus removing incentives to balance benefits and costs of providing services that would exist without targets.
- Context in which trusts operated was important; trust productivity levels in 2003/04 correlated positively with social services expenditure on over 65s and negatively with the extent of patient deprivation. More qualitative evidence of hospital productivity against operating context would therefore add significantly to our ability to evaluate trust performance.

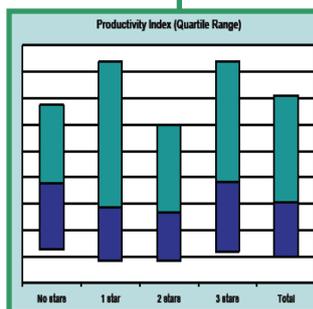


Figure 4

Find out more...



For more information contact **Mary O'Mahony**  
([m.omahony@bham.ac.uk](mailto:m.omahony@bham.ac.uk))

[www.publicservices.ac.uk](http://www.publicservices.ac.uk)

