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Keith A. Bender and Alex Bryson

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Article (Accepted version) (Refereed)

Original citation:

Bender, Keith A. and Bryson, Alex (2013) Performance pay: trends and consequences introduction. National Institute Economic Review, 226 (1). R1-R3. ISSN 0027-9501

DOI: 10.1177/002795011322600101

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Available in LSE Research Online: September 2014

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Introduction
Performance-Related Pay: A NIESR Review Special Issue

Keith A. Bender Business School and CELMR University of Aberdeen Alex Bryson NIESR and Centre for Economic Performance, LSE

Introduction

From First Principles, one of the key implications of standard labour economic theory is that workers should be paid their marginal product. Pay that is tied to a worker's performance, therefore, would seem to provide the most direct link to satisfy this theoretical requirement (Lazear 1986). Indeed, there is ample evidence that indicates that implementing pay for performance increases productivity through a combination of increased incentives for high productivity and incentives for highly productive workers to sort themselves into these types of jobs (e.g., Lazear 2000, Haley 2003, Gielen *et al.* 2010, Jones *et al.* 2010 and Bryson *et al.* 2013). Because of these potentially beneficial attributes of performance related pay, much research has been devoted to identifying how widespread the pay practice is compared to other methods of compensation, how it has changed over time, how it is viewed by different labour market actors and whether it correlates (positively or negatively) with other labour market outcomes, as well as a host of other research questions.

The goal of this Special Issue, therefore, is to bring together three papers that examine different aspects of performance pay. It is, by no means, intended to span the width and breadth of the literature or even to summarise this large literature. Rather, it is to offer papers that discuss particularly interesting or different ways of thinking about performance pay. As such, they add significantly to our overall knowledge of performance pay in labour markets.

Trends in Performance Pay

One of the themes in the literature is to understand how prevalent performance-related pay is. One of the first problems, however, in doing this is determining an exact definition of performance pay, since continued employment is nearly always dependent upon satisfactory performance (Prendergast 1999). Performance pay is generally considered to be any potentially variable payment based on performance above a fixed amount of compensation (typically tied to the number of hours in employment). However, even with this definition, there is a good deal of diversity in the type of performance measured, which can range from individual performance (e.g., piece rates or commissions), to group performance (e.g., gainsharing) to firm performance (e.g., profit sharing or stock ownership plans). Thus, in the literature there is great variation in the proportions of workers in performance pay dependent upon what definition is used. Interestingly, given the labour market benefits of performancerelated pay mentioned above, one might expect that, regardless of the way it is measured, the level of performance related pay would be high in market-oriented economies, where firms are trying to maximise profits. However, this does not seem to be the case with most European countries having relatively low incidence rates of 10-15% rising to around 40% for Scandinavia and the United States (Bryson et al. 2013) for private sector workers.

Understanding the incidence and trends in performance pay in the US labour market is the focus of the first paper in this Issue by Maury Gittleman and Brooks Pierce of the US Bureau of Labor Statistics. They use unique micro data from the Employer Costs for Employee Compensation (ECEC) series that comes from the National Compensation Survey (NCS). While aggregated data from this survey are used widely in describing employee cost data in the United States, the micro data allow the researchers to identify different types of performance pay since 1994, allowing them not only to calculate incidence rates for different

types of performance pay, but also what the trends in performance pay have been since 1994. The data are also unusual in this literature in that it is reported by employers rather than the more common worker-level survey evidence that is in much of the rest of the literature. They find that performance pay affects 19% of the US workforce under their 'narrow' definition (i.e. including incentive pay jobs and nonproduction bonuses that are designed to align productivity and pay) to 37% under their 'broad' definition (i.e. the 'narrow' definition as well as any nonproduction bonuses) in 2013. Differences in incidence across a limited range of worker and firm characteristics show greater performance pay among information and financial industries, smaller firms, sales and management occupations, the more highly educated, the more highly paid, full time workers and nonunion workers. Interestingly, they also find that the incidence has fallen in the US, particularly since the early 2000s.

Performance Pay and the Business Cycle

Related to this research on examining the incidence and trends of performance pay is what happens to performance related pay over the business cycle. One might expect that the increased flexibility in pay allows firms to adjust wages rather than employment levels in response to changes in demand (Lemieux *et al.*, 2012), indicating a procyclical relationship. Hourly rates of pay based on salaries, on the other hand, are often found to be countercyclical, being relatively high when the economy is declining and relatively low when the economy is strengthening. This is of obvious relevance currently as developed economies are struggling to recover from the severe recession of the late 2000s.

To give some guidance on this topic, Robert A. Hart and J. Elizabeth Roberts examine historical data from manufacturers in the UK around the Great Depression. Using regional variations in payment schemes, they are able to identify payments that are primarily piece

rates (in southern UK areas) or time rates (in northern UK regions). Payroll data from firms associated with the British Engineering Employers' Federation indicate that hourly wages in the north, where the prevalence of piece rates was relatively small, were countercyclical during the Great Depression. On the other hand, while time rates for southern workers were also generally countercyclical, earnings from piece rates were procyclical, mitigating employment losses during the Great Depression, particularly in relation to northern regions of the UK.

Performance Pay and Trade Unions

As the research outlined above shows, the incidence of performance pay is likely lower than theory might predict. Multiple reasons have been given for this. For example, the transaction costs for observing and evaluating performance may be prohibitively high leading to a reluctance by firms to offer such compensation schemes. Risk averse workers will also be less likely to want more variable performance pay, particularly if there are factors beyond their control that affect productivity (indeed it could even lead to lower job satisfaction, *ceteris paribus*, as suggested by Pouliakis and Theodossiou, 2009). There have also been a host of unintended consequences that potentially could plague performance pay if the contracts are not specified well. For example there can be 'adverse specialisation' (MacDonald and Marx, 2001) where quantity is prioritised over quality or physical capital is overused. Other research (Freeman and Kleiner, 2005) finds that piece rates give incentives to employ inefficient levels of other inputs. Performance pay has also been found to be correlated with higher worker compensation premia (Freeman and Kleiner, 2005), increased injury rates (Bender *et al.*, 2012) and worse health (Bender and Theodossiou, 2013).

Another reason given for the low incidence of performance-related pay is the opposition by trade unions. Freeman (1982) argues that since performance-related pay increases earnings dispersion, it would disrupt union solidarity and, thus, unions would be opposed to the implementation of pay for performance. However, subsequent research has found a less consistent pattern of unions and performance pay. This issue is the focus of the paper by Patrick O'Halloran who examines longitudinal data from the US National Longitudinal Survey of Youth 1979 (NLSY) to examine the relationship between unions and different kinds of performance related pay, controlling for a wide range of personal characteristics as well as fixed effects. He reveals a complex pattern of negative correlations between unionisation and payment using commissions, bonuses and stock options, while there is actually a positive relationship between unionisation and piece rates, *ceteris paribus*.

O'Halloran suggests that a nonnegative relationship between unions and performance pay might occur if the union has some control over the implementation and procedures used in the particular performance pay scheme.

Thus, these papers offer different perspectives on performance based pay. As all good research does, they both inform and offer new ways forward for the literature to examine new questions.

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