

# **HRM in the Public Sector: Does It Work?**

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# Draws on research with...

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# Motivation

- Concerns about
  - productivity in the public sector
  - the cost of delivering public services
- Desire to improve quality and efficiency with which public services are delivered
- What are the solutions?
  - Privatisation
  - Or tools that are commonly associated with the private sector
  - Including management practices
    - Human Resource Management and High-performance Working Practices
- But can HRM deliver in the public sector?
  - What's the theory?
  - What's the evidence?
  - What are the implications for 'going further' down this road?

**Annual Total UK Public Service Productivity, Inputs and Output, 1997 to 2020**  
**United Kingdom**

	<i>Index,</i>			<i>%</i>		
	<i>1997=100</i>					
	Inputs	Output	Productivity	Inputs	Output	Productivity
	<i>1997=100</i>	<i>1997=100</i>	<i>1997=100</i>	<i>Y-on-Y<sup>1,2</sup></i>	<i>Y-on-Y<sup>1,2</sup></i>	<i>Y-on-Y<sup>1,2</sup></i>
1997	100.0	100.0	100.0			
1998	102.0	102.9	100.9	2.0	2.9	0.9
1999	105.2	105.8	100.6	3.1	2.8	-0.3
2000	109.8	109.7	99.9	4.4	3.7	-0.6
2001	113.4	114.7	101.2	3.2	4.5	1.2
2002	120.3	119.5	99.3	6.1	4.2	-1.8
2003	127.6	126.6	99.2	6.1	6.0	-0.1
2004	133.0	132.7	99.8	4.2	4.8	0.6
2005	138.0	137.3	99.5	3.8	3.5	-0.3
2006	140.9	141.6	100.5	2.1	3.1	1.0
2007	144.1	145.0	100.6	2.3	2.4	0.1
2008	149.7	149.6	99.9	3.9	3.2	-0.6
2009	154.8	153.3	99.0	3.4	2.4	-0.9
2010	156.0	154.0	98.7	0.8	0.4	-0.3
2011	154.3	154.0	99.8	-1.1	0.0	1.1
2012	154.7	155.5	100.5	0.2	1.0	0.7
2013	153.0	155.7	101.7	-1.1	0.1	1.2
2014	155.6	159.0	102.2	1.7	2.2	0.5
2015	158.3	161.9	102.3	1.7	1.8	0.1
2016	158.0	163.4	103.4	-0.2	0.9	1.1
2017	159.0	165.0	103.8	0.7	1.0	0.3
2018	159.6	166.6	104.4	0.4	1.0	0.6
2019*	165.8	173.4	104.6	3.9	4.1	0.2
2020*	183.0	161.8	88.5	10.3	-6.7	-15.4

Source: Office for National Statistics

Note:

\* Estimates for 2019 and 2020 reflect growth rates of the annualised non-quality adjusted experimental quarterly total public service productivity applied to the quality adjusted annual total public service productivity.

1. Y-on-Y refers to year-on-year growth.

# Recent Trends

- Big decline in public sector productivity in q2 2020
  - huge increase in inputs, notably in health care
    - Test and trace, PPE
- Bounce back in q3 and q4 2020
  - Health care activity
    - GP appointments, elective surgery
- Difficulties in measuring public sector output exacerbated due to COVID
- For more on recent trends see <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/labourproductivity/articles/ukproductivityintroduction/octobertodecember2020#public-service-productivity>
- For more on how productivity is measured in public sector see: <https://www.ons.gov.uk/economy/economicoutputandproductivity/publicservicesproductivity/articles/publicservicesproductivityestimatestotalpublicservices/totaluk2018#main-points>

# Overview

- HRM can deliver for the public sector
- Public sector not always the laggard it's made out to be
  - Often leading the private sector
- In some areas HRM is less-well-developed in the public sector
  - may be good reasons since public sector setting is very different
- Clear evidence that HRM is associated with higher productivity and performance in the public sector
- But not so positive for employees
  - Not the 'mutual gains' identified in some of the private sector literature
- Public sector HRM doesn't always 'behave' as per theory based on private sector enterprise
- Sometimes good arguments for leaving public sector management as it is
- But I'm not sure that's going to happen

# Remainder of the talk

- What is the public sector and why does it matter?
- What is HRM and how might it work in the public sector?
- What's the evidence?
  - White and Bryson (2021): workplace performance across public sector
  - White and Bryson (2019): impact on employees across sector
  - Bryson and Green (2018): schools
  - Bryson, Forth and Stokes (2017): performance pay in public and private sectors
  - Anders, Bryson, Horvath and Nasim (forthcoming): flexible pay for teachers in local authority controlled schools
- Implications and the future

What is the public sector and why does it matter?



# What is the public sector?

- State-owned economic activity
  - Local authorities, civil service, (most) health and social care, (most) education, (most) police and justice services, emergency services, security
  - State's response to demand for goods/services that markets find difficult to provide
  - No profit maximand but subject to law of scarce resources leading to rationing
- Can be hard to define
  - Public/private boundaries are contentious
  - Outsourcing
  - Private provision of public services
- Measurement error in some data sets
  - Some employees don't know they whether they are public or private sector (Blanchflower and Bryson, 2010)

# Why does it matter?

- Important in people's lives
  - Welfare provision, life chances, security, justice, labour market
  - And, for the 1/3 of employees working for it, livelihoods
- Costs quite a bit
  - Taxes, which people don't like
- Matters to functioning of the economy
  - Infrastructure
  - Efficient labour market
  - Productivity in both public and private sectors

# Getting the best out of your public sector

- Issue came to fore in 1990s
  - UK not unusual – similar elsewhere (Esping-Andersen, 1996)
    - Longevity, in-migration
    - Greater expectations on education, health, consumption
    - Resistance to increased taxation
- **New Public Management** (Barzelay, 2001; Bach et al, 2009)
  - Targets and incentives
  - Public Service Productivity Panel: Makinson (2000) focus on team incentives
- **Been using performance-based contracts to deliver public services through private and third sector providers for some time** (Rolfe et al., 1996)
  - But never to the extent used in the United States, eg. welfare-to-work providers

**HRM:**

**What is it and How Might it  
Work in the Public Sector?**

# HRM Flavour 1

- HRM as technology
  - Sits alongside capital, labour, intermediate goods in production function (Bloom and Van Reenen, 2007)
  - Foundations in principal/agent theory
    - Difficulties observing worker effort -> shirking
    - Align principal/agent interests via incentives
    - Payment methods, appraisal, firing policies
  - Squeeze out opportunities to shirk
    - Targets, monitoring, operational efficiency (JIT, TQM)
    - Taylorist job design -> sceptical about 'engagement'

# HRM Flavour 2

- HRM as worker engagement
  - Employer relies on workers' tacit knowledge
  - Employee desires job enrichment
- Ingredients
  - Job control: devolve responsibility to individual or team to elicit tacit skills
    - Counter to scientific management (Walton, 1972; 1985; Lawler, 1986)
  - Complementary incentives/supports
    - Organisation-level 'voice'; financial participation; performance pay; training; selection
- Mechanisms
  - Gift exchange; ability-motivation-opportunity (AMO) suggests performance returns via commitment/satisfaction
- HRM -> HPWS (Appelbaum et al., 2000)
  - Mutual gains or 'intensification' (Bryson, 2018)

# HRM as Managerial Choice

- Managerialists and economists assume employers have some (albeit constrained) choice in how to configure the workplace and thus labour input
- Constraints
  - Top-down managerial hierarchies; quality of labour supply; managerial quality; governance and regulations
- Implications for public sector?
  - Role of statute, public policy, political intervention
  - Not profit-maximising
  - Increasing managerial autonomy (eg. Academy schools)

# Conundrum for Employers in the Private and Public Sectors

Do employers adopt a labour intensification strategy aimed at driving costs down and controlling labour, or do they adopt a work enrichment strategy founded on principles of employee engagement with a view to eliciting collaboration and co-operation with workers in expectation of what Tom Kochan and Paul Osterman (1994) referred to as “mutual gains”?



# How might HRM work and for whom?

- Universalist
  - Sub-optimal investment, more = better
  - Intensity therefore matters
- Contingent – “it all depends...”
  - Internal fit (policies, practices, governance, labour)
    - bundles
  - External fit (market, competition)
- Perhaps multiple equilibria
  - optimise by doing different things
- Is HRM a network good or a private good?
  - Network: returns are increasing in N adopters
  - Private: rivalrous, private exclusive returns; value of being first mover

# How to Specify HRM - Theory

- A technology with constant marginal returns
- Potential non-linearities, eg. if high-intensity HRM is a 'signal' of 'strong' system to workers (Bowen and Ostroff, 2004)
- Not necessarily a single latent variable
- So examine domains too
  - intensity within those domains
  - Interactions between domains (bundles) if complementarities

# HRM Practices

<b>HRM Domain:</b>	<b>HRM measures for each domain:</b>
<b>Incentives (0,4)</b>	<b>Any performance pay; managers appraised; 100% non-managers appraised; non-manager appraisal linked to pay</b>
<b>Records (0,9)</b>	<b>Sales, costs, profits, labour costs, productivity, quality, turnover, absence, training</b>
<b>Targets (0,11)</b>	<b>Volume, costs, profits, ULCs, productivity, quality, turnover absence, training, job sat, client sat</b>
Teams (0,4)	100% largest non-managerial occupation in teams; teams depend on each other to perform work; team responsible for products and services; team jointly decides how to do the work
Training (0, 5)	80% largest non-managerial occupation had on-job training lasts 12 months; workplace has strategic plan with employee focus; Investors in People Award; standard induction programme for new staff in largest non-managerial occupation; number of different types of training provided is above population median.
TQM (0, 3)	Quality circles; benchmarking; formal strategic plan for improving quality.
Participation (0,5)	Formal survey of employee views in last 2 years; management-employee consultation committee; workforce meetings with time for questions; team briefings with time for questions; employee involvement initiative introduced in last 2 years.
Selection (0,7)	References used in recruitment; recruitment criteria include skills; recruitment criteria include motivation; recruitment criteria include qualifications; recruitment criteria include experience; recruitment includes personality or aptitude test; recruitment includes competence or performance test.

# HRM in the Public Sector

- Traditionally viewed as distinctive (Farnham and Horton, 1996)
  - Paternalistic (staff well-being); collectivist (unionised); consciously 'model employer'
  - Less concerned about efficiency/cost (Gould-Williams, 2004)
- Recent political pressures for change including adoption of private sector approaches to HRM (G-W 2004: 67)
  - Quasi-markets (Le Grand, 1991); competitive tendering;
  - Growth in performance-oriented practices (Bach et al., 2013: 324-327)
    - New Public Management (Bach et al., 2009; Barzelay, 2001)
  - Model employer practices persist (Bach et al., 2013: 327-8)
  - Between 2004 and 2011 big growth in job insecurity confined to public sector (van Wanrooy et al., 2013: 136)

# AMO in the Public Sector

- Ability-Motivation-Opportunity
  - Enhancement of organizational resources via employee ability and motivation, together with structures of opportunity by which able and motivated employees can achieve improved results
- Public sector workers motivated by ‘moral commitment’ that is more powerful than ‘calculative commitment’ driving commercial sector workers (Etzioni, 1975)
  - Mission-oriented (Besley and Ghatak, 2005)

# PUBLIC SECTOR HRM: EMPIRICAL EVIDENCE

# Overview of recent literature

- Most studies are branch-specific or focus on one facet of HRM
  - Local government: positive effects of team-working on employee attitudes via trust (Gould-Williams and Davies, 2005) and performance (Gould-Williams and Gatenby, 2010)
  - Health-care: no quant research (Harris et al., 2007)
  - Hyde et al. (2013): qual assessment of how staff view HRM
  - Bryson and Green (2018) and Bryson et al. 2018: intensive use of HRM positively associated with schools' financial performance, labour productivity, quality of service - effects confined to state funded schools
- Some effects of performance-related pay
  - HM Customs and Excise: team incentives positive for productivity via task allocation (Burgess and Ratto, 2009)
  - Jobcentre Plus: team incentives positive for job placements but NS for customer service (Burgess et al., 2004)
  - Prentice et al. (2007): limited by scheme design and gaming
  - Bryson et al (2017): negatively correlated with financial performance

# High-performance work systems and the performance of public sector workplaces in Britain

A. Bryson and M. White [Oxford Economic Papers \(2021\)](#)



# Motivation

- Appelbaum et al. (2000) found positive effects of HPWS for employers private sector
- Do we get same results for public sector?
  - First baseline results for public sector
- Focus on workplaces with 50+ employees in the Workplace Employment Relations Survey (WERS)
  - Akin to omission of SMEs in private sector research because often somewhat different

# Findings

- Increased use of HPWS was positively correlated with workplace financial performance ratings and the implementation of workplace organizational change, and negatively correlated with wage costs
- Target setting (TS) practices are, as much as HPWS, significantly associated with workplace outcomes
- First difference estimates for the financial rating and workplace change outcomes qualitatively support the cross-section findings
- We conclude that both HPWS and TS are important management technologies for managers pursuing government objectives in the public sector

# Dependent variables

**Table 1.** Descriptives for dependent variables

	Range	Mean	SD	N
Financial performance				
Median wage (£/hour)	5.48–24.01	13.50	3.74	682
Financial performance rating <sup>a</sup>	1–5	3.62	0.82	617
Workplace change activity:				
New technology/IT	0,1	0.71	0.45	683
New or improved service using technology	0,1	0.47	0.50	683
Working time	0,1	0.36	0.48	683
Work organization	0,1	0.72	0.45	683
Work procedures	0,1	0.66	0.48	683
Index of workplace change	0–5	2.91	1.47	683

**Table 2.** Explanatory variables: HPWSs

Domains	Contents	Range	Mean	SD
Participation KR20 = 0.69	Meetings are regular; <u>meeting frequency</u> ; <u>staff time in meetings</u> ; <u>briefing frequency</u> ; <u>staff time in briefings</u> ; subjects discussed in meetings (staffing, finance, investment); consultative committee; attitude surveys.	1–11	7.91	1.87
Team working KR20 = 0.57	<u>Proportion in teams</u> ; training for team-working; teams have inter-dependence, responsibility, autonomy; quality circles used.	0–6	3.80	1.24
Training/development KR20 = 0.60	‘Investor in People’ standard achieved; development included in firm strategy; <u>proportion given workplace training</u> ; <u>proportion given off-job training</u> ; <u>proportion given cross-job training</u> ; <u>variety of training courses used</u> ; induction courses used; appraisal for managers; appraisal for all non-managers; employee development is part of workplace strategy; vacancies filled internally if possible.	1–8	5.38	1.41
Recruitment/selection KR20 = 0.62	Selection criteria: qualifications, skills, references, motivation, experience; use personality tests for manager jobs; use personality tests for non-manager jobs; use skill tests for manager jobs; use skill tests for non-manager jobs.	0–8	5.60	1.55
Pay for performance KR20 = 0.81	Bonus for individual, group/team, workplace, organization performance; profit-sharing for non-managers; merit-based or performance pay; appraisals that affect pay differentials; incentives that affect pay differentials.	0–9	1.78	2.05
HPWS index KR20(items) = 0.80	Summative score across the above domains	11–36	24.47	4.45

# Effects of HPWS and TS on Log Median Wage

	(1)		(2)	
	<i>b</i>	s.e.	<i>b</i>	s.e.
HPWS	-0.006	0.0027*		
TS	0.001	0.0048	0.002	0.0046
Participation			-0.016	0.0059**
Teams			-0.009	0.0104
Train/develop			-0.009	0.0096
Recruit/select			0.010	0.0077
Performance pay			-0.005	0.0066
<i>N</i> , <i>R</i> -squared	646	0.572	646	0.582

# Effects of HPWS and TS on Financial Performance

	(1)		(2)	
	<i>b</i>	s.e.	<i>b</i>	s.e.
HPWS	0.013	0.012		
TS	0.054	0.019**	0.050	0.019**
Participation			0.063	0.025*
Teams			-0.023	0.042
Train/develop			0.020	0.043
Recruit/select			0.026	0.032
Performance pay			-0.034	0.022
<i>N</i> , <i>R</i> -squared	587	0.124	587	0.147

# Effects of HPWS and TS on Workplace Innovation

Change»	1 New technology		2 New services		3 Working time	
	HPWS	TS	HPWS	TS	HPWS	TS
<i>b</i>	0.040	0.061	0.040	0.118	0.0006	0.102
s.e.	0.021	0.032	0.019	0.030	0.019	0.030
<i>t</i>	1.92 <sup>+</sup>	1.91 <sup>+</sup>	2.14*	3.92**	0.03	3.45**

Change»	New technology		New services		Working time	
	<i>b</i>	s.e.	<i>b</i>	s.e.	<i>b</i>	s.e.
TS	0.069	0.032*	0.115	0.030**	0.108	0.030**
HPWS domains:						
Participation	0.063	0.050	0.044	0.040	0.091	0.048+
Teams	0.122	0.73 <sup>+</sup>	-0.041	0.070	-0.067	0.067
Train/develop	-0.072	0.061	0.090	0.062	-0.065	0.062
Recruit/select	0.109	0.049*	0.116	0.049*	-	-
Performance pay	-	-	-	-	-0.040	0.041

# Effects of HPWS and TS: Panel Estimates

Outcome»»	a. Financial rating		b. Change index	
	<i>b</i>	s.e.	<i>b</i>	s.e.
Unweighted				
HPWS	0.031	0.015*	0.069	0.020**
TS	0.001	0.023	0.118	0.040**
<i>N</i> (observations)	493		552	
<i>R</i> -square within	0.040		0.146	
Rho	0.423		0.453	

	New technology	New services	Working time
HPWS	0.027 (0.041)	0.148 (0.045)**	0.062 (0.038)
TS	0.087 (0.065)	0.103 (0.056) <sup>+</sup>	0.093 (0.059)
<i>N</i> (groups)	83	110	115
LR chi-square (7 d.f.)	4.57	30.16**	10.48
Log-likelihood	-55.25	-61.16	-74.47



# HRM Across the Public Sector: Mutual Gains?

[White, M. and Bryson, A. \(2019\)](#)

# Motivation

- Appelbaum et al. (2000) found positive effects of HPWS for employees in private sector
- Do we get same results for public sector?
  - First baseline results for public sector
- Do results change over time?
  - 2004-2011, recession
- Focus on workplaces with 50+ employees

# Findings

- There is no indication of HPWS having a positive effect on employees' experience of work as reflected in their job attitudes or measures of wellbeing
- The effects of HPWS therefore appear more favourable to public sector employers than employees
- This contrasts with the classic 'win-win' results of Appelbaum et al. (2000) in the private sector and raises substantial issues for future research

## HPWS Score and Workplace Performance in the Public Sector, 2004 and 2011

<b>2004</b>	<b><i>FINANCIAL</i></b>	<b><i>LABOUR</i></b>	<b><i>QUALITY</i></b>	<b><i>ADDITIVE SCALE</i></b>
<b>HPWS:</b>				
<b>beta</b>	0.045	0.017	0.010	0.070
<b>t-stat</b>	3.77**	1.28	0.94	2.70**
<b>R-sq.</b>	0.112	0.109	0.213	0.144
<b>2011</b>	<b><i>FINANCIAL</i></b>	<b><i>LABOUR</i></b>	<b><i>QUALITY</i></b>	<b><i>ADDITIVE SCALE</i></b>
<b>HPWS:</b>				
<b>beta</b>	0.027	0.019, 1.81	0.018	0.061
<b>t-stat</b>	2.64**	1.81	1.70	2.43*
<b>R-sq.</b>	0.110	0.102	0.081	0.102

## HPWS Score and Workplace-mean Employee Attitudes in the Public Sector, 2004 and 2011

<b>2004</b>	<b>Organizational commitment</b>	<b>Intrinsic Job Satisfaction</b>	<b>Trust</b>	<b>Wellbeing</b>
<b>HPWS:</b>				
<b>Beta</b>	0.001	-0.002	-0.028	-0.041
<b>t-stat</b>	0.10	-0.12	-0.75	-1.40
<b>R-sq.</b>	0.39	0.24	0.30	0.26
<b>2011</b>	<b>Organizational commitment</b>	<b>Intrinsic Job Satisfaction</b>	<b>Trust</b>	<b>Wellbeing</b>
<b>HPWS:</b>				
<b>beta</b>	0.002	-0.001	-0.004	0.019
<b>T-stat</b>	0.14	-0.05	-0.14	0.63
<b>R-sq.</b>	0.391	0.322	0.175	0.371

# A Case Study: State versus Private Schools

Bryson, A. and Green, F. (2018) "Do Private Schools Manage Better?", National Institute Economic Review, No. 243, R17-R26

previously [IZA Discussion Paper No. 11373](#)

# Motivation

- The government attributes some of the gap in student attainment between state and private schools to their management practices
- They have proposed private school 'sponsorship' of state schools to promote management practice 'learning'
- But there was no empirical evidence of this issue
- We undertook the first study of its kind using workplace-level data to investigate take-up of HRM practices and their correlation with school outcomes

# Current Policy

- Andrew Adonis, Labour's Minister for Schools from 1998 to 2008 urged that successful private schools, whose "DNA" incorporated "independence, excellence innovation, social mission" should sponsor state academy schools (Adonis, 2012: 157)
- In 2013 there were 36 private schools involved in some form of sponsorship of state school academies, though only five were fully involved with managerial responsibilities
- Manifesto commitment to promote more of this



# The Private Schools Sector

- Around 7% pupils in Britain go to private schools
- Their resources exceed those in state schools by around a factor of 2.5:4
- Private schools deliver substantial educational advantages as measured by achievements in public exams and access to high-ranking universities
- Earnings returns and social status higher after private school

# HRM and Performance

- Extensive literature links variations in organisational performance with intensive use of HRM practices
- Some use experimental methods suggesting causal linkage
- Indications of a positive relationship between various management practices and performance in a school setting
  - United States: Fryer (2014, 2017) and Sun and Ryzin (2014)
  - Brazil: Tavares (2015)
  - Turkey: Argon and Limon (2016)
  - Bloom et al. (2015) across eight countries

# Chief Hypothesis

- The high degree of autonomy enjoyed by private schools, combined with the pressures of competition for students and direct parental involvement, result in private schools having evolved a more intensive use of efficient management practices

# Data

- Workplace Employment Relations Surveys 2004-2011
- Face-to-face interview with senior HR manager
- Nationally representative of workplaces with 5+ employees
- 406 schools of which 79 are private schools
- Detailed information on HRM at the workplace
  - Incentives
  - Record keeping
  - Targets
  - Team-working
  - Training
  - Total quality management
  - Participation
  - Selection
  - Overall score

# Findings

- There is greater use of modern HRM practices in state schools, not private schools
- The differences persist controlling for potential confounding factors
- HRM intensity is positively associated with improvements in schools' financial performance and labour productivity, but only in state schools

# Mean Scores for Management Practices in State and Private Schools

	State	Private
Incentives (0,4)	1.93	1.91
Records (0,9)	5.99	<u>6.89</u>
Targets (0,11)	2.63	2.36
Teams (0,4)	<u>2.81</u>	2.20
Training (0,5)	<u>3.53</u>	2.60
TQM (0,3)	<u>2.06</u>	1.13
Participation (0,5)	3.22	2.68
Selection (0,7)	<u>5.37</u>	4.89
HRM (0,48)	<u>27.55</u>	24.67

underlined figures denote statistically significant difference between the mean scores at a 95% confidence level or above

Table 3: School Performance and HRM in Private v State Schools

	Workplace Performance	Financial Performance	Labour Productivity	Quality of service/output	Log absence rate	% voluntary quits	Illness rate
Private school	-0.276 (0.75)	-0.070 (0.52)	-0.250 (1.30)	-0.121 (0.83)	0.071 (2.33)*	4.694 (2.22)*	1.677 (0.73)
HRM	0.621 (3.18)**	0.243 (3.75)**	0.271 (3.47)**	0.111 (1.44)	-0.057 (0.96)	-1.390 (1.60)	1.565 (1.37)
Interaction	-0.966 (2.97)**	-0.289 (2.70)**	-0.218 (1.33)	-0.111 (0.73)	0.009 (0.17)	-0.471 (0.21)	-1.579 (0.60)
$R^2$	0.25	0.26	0.30	0.21	0.12	0.41	0.39
$N$	335	370	341	385	319	384	406

Notes: (1) OLS models for private and state school performance. (2) Models pool cross-sectional data for 2004 and 2011. (3) Dependent variables are as follows: workplace performance: a response on financial performance, labour productivity and quality of service relative to other workplaces in the industry. Scale runs from 0 (below/a lot below average) to 4 (a lot better than average on all 3 items). The absence rate is the percentage of work days lost through sickness or absence at the workplace over the previous 12 months. The voluntary quit rate is the percentage of employees who left or resigned voluntarily in last year. The illness rate is the number of employees per 100 employees who have been absent in the last 12 months due to illness caused or made worse by their work. The injury rate is the number of employees per 100 who have sustained an injury at work in the last 12 months. (4) Managerial responses to the question “how would you rate the relationship between management and employees generally at this workplace?” with responses 1=poor/very poor to 4=very good. (3) All models contain controls as per Table 2. (4) t-statistics in parentheses. Statistical significance: \*  $p < 0.05$ ; \*\*  $p < 0.01$ .

# Implications

- No empirical support for the belief that private schools' comparative success is attributable in part to better management
- Instead in several domains of managerial practice, and in our overall index of good management, the private sector on average lags behind the state sector
- Only in the state sector is there a positive association between high management scores and performance
- No causality but our findings are consistent with earlier studies using quasi-experimental methods, both within schools and in other sectors.



# Performance Pay in the Public Sector

[Bryson, A., Forth, J. and Stokes, L. \(2017\) "How Much Performance Pay is there in the Public Sector and What Are Its Effects?", Human Resource Management Journal, 27, 4: 581-597](#)

# Value of Pay for Performance (PP)

- Can raise productivity
  - Workers sort by ability (Prendergast, 1999; Lazear, 1986; 2000)
  - Via increased worker effort as workers are paid marginal product (Lazear, 2000)
  - Assumes workers able to influence output and that wage schedule steep enough to induce effort
- Aligns interests of principal/agent but...
  - Monitoring costs (Lemieux et al., 2009)
  - Hard to link individual worker effort to output
  - Complications with complex jobs
    - perverse incentives if multi-task jobs
  - Worker motivations/tastes
    - risk, competition, effort
  - Monetary rewards can prove counter-productive when workers are intrinsically motivated (Benabou and Tirole, 2003; Besley and Ghatak (2005); Burgess and Metcalfe, 2000)

# Basic Ideas in the Paper

- Characteristics of public sector jobs militate against use of PP
  - Multi-tasking; complex goods; multiple principals
- Worker preferences are heterogeneous across public and private sectors such that public sector workers may be less sympathetic towards PP and less responsive to it
  - Risk-averse (Pfeifer, 2011; Alesina et al., 2001)
- Public sector employees prefer career incentives to s-term PP to elicit effort
- Unions may block widespread use of PP in public sector -> prefer rate for the job
- Organizational benefits of PP are liable to be weaker in public sector because 'effects' unlikely to work through employee attitudes

# Key Findings

- Half the 20 percentage point gap in PP between the private and public sectors is accounted for by differences in occupational composition
  - The gap falls to 8 percentage points when matching workers on their demographic and job characteristics
- PP is linked to positive job attitudes in the private sector but not among observationally equivalent public sector employees
- PP is negatively correlated with workplace performance in the public sector

# Performance Pay Incidence, January 2000-March 2013

## Sectoral Shares of All Base Pay and Bonus Pay, Monthly Wages and Salaries Surveys

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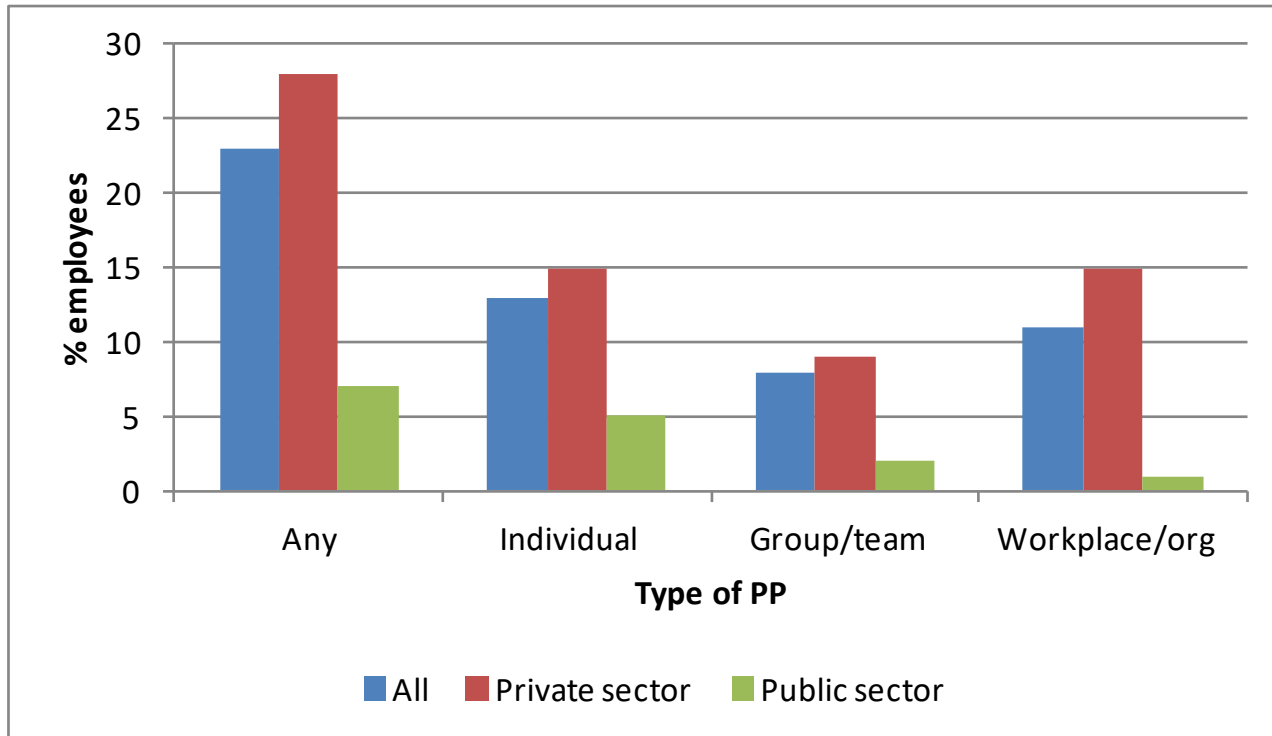
	NACE Rev. 1.1 Section(s)	Share of all bonus pay (%)	Share of all regular pay (%)
Finance	J	39	7
Other private services	G-I, K, O	45	45
Production	A-F	15	21
Public services	L-N	1	26
Total		100	100

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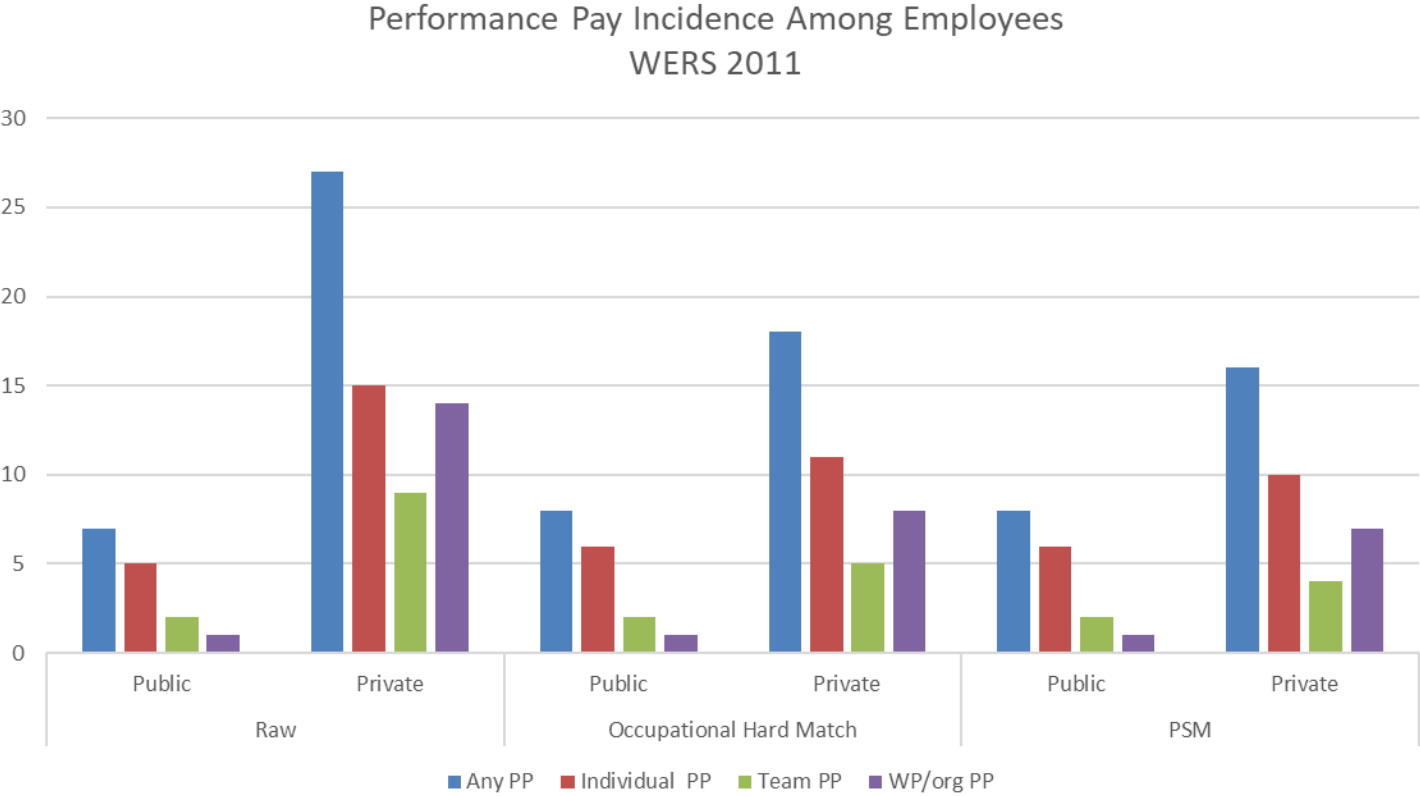
**Source:** Monthly Wages and Salaries Survey

# Performance Pay Incidence, 2011

*WERS (employees in workplaces with 5+ employees)*



# PP gap between public and private sectors halves when comparing 'like' employees in similar occupations



# PP positive for job satisfaction and organizational commitment in the private sector but not in the public sector

	Employees receiving any PP	Employees receiving fixed pay only	Difference	Significance ( <i>t</i> - stat)
Private sector				
Intrinsic job satisfaction				
Unmatched	0.097	0.026	0.071	3.33
Matched	0.097	0.043	0.054	2.31
Organisational commitment				
Unmatched	0.138	0.017	0.121	5.60
Matched	0.137	0.057	0.080	3.40
Public sector				
Intrinsic job satisfaction				
Unmatched	-0.238	-0.041	-0.197	4.40
Matched	-0.238	-0.233	-0.005	0.10
Organisational commitment				
Unmatched	-0.273	-0.035	-0.238	5.37
Matched	-0.270	-0.240	-0.030	0.62

PSM matching of PP with fixed pay employees, WERS 2011



# 'Effects' of PP on Workplace Performance in the Public Sector

	Workplaces with any PP	Workplaces with no PP	Difference	Significance ( <i>t</i> -stat)
Additive workplace performance scale				
Unmatched	4.714	5.008	-0.295	1.93
Matched, ATT	4.723	5.053	-0.331	1.80
Matched, ATNT	4.569	5.029	-0.459	—

# The Effects of Pay Decentralisation on Teachers' Pay and Teacher Retention

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ESRC Grant No. ES/R00367X/1

# Big reform in teacher pay

- Abolition of fixed pay points within pay bands since 2013/14
- Changes to leadership pay from Sept '14
- Initial evaluation found some evidence of change in pay levels and variance, albeit small (Burgess et al., 2017)
- Anders, Bryson, Horvath and Nasim on-going study. Effects of pay reforms on:
  - Teacher pay (entry wages, pay progression, variance within and across schools);
  - Teacher retention and entry to the profession
  - Teacher mobility across schools
  - Types of workers becoming teachers (leaving teaching)
  - Vacancy filling
  - School-level pay: variance within/between schools
  - Pupil attainment

# We might expect something (Imberman 2015)

## KEY FINDINGS

### Pros

- + Incentives can effectively improve student performance if they are designed well.
- + In developing countries, paying teachers for student performance has been shown to be highly effective at low cost.
- + Incentives based on the collective performance of small groups of teachers strike a balance between loss of effectiveness from free-riding teachers and gains in effectiveness from teachers cooperating with each other.
- + Innovative incentive mechanisms based on loss rather than gain or on relative student performance show promise for high effectiveness but are yet to be rigorously evaluated.

### Cons

- Overall, evidence on individual incentives in developed countries is mixed, with some positive and some negative impacts.
- In countries with high teacher salaries, incentives need to be large to elicit a response, which could make them too expensive for general use.
- Incentives based on the collective performance of large groups of teachers have been shown to have little impact on achievement and in some cases even generate negative impacts.
- There is no evidence that incentives tied to specific exams result in improvements in other measures of academic performance, suggesting a lack of general improvements in knowledge.

# Initial Paper

- Evaluates 2013 teacher pay reform effects on the teacher labour market
- **Will present the first paper from the study which tackles 3 questions:**
  - **Which schools adjusted pay after the reform?**
  - **What was the impact on teachers' pay?**
  - **What was the impact on teacher retention?**
- Data for 2010-2016
  - Linking SWF with ASHE and....
  - Short-term effects
- Estimation
  - Difference-in-differences
  - Use pre-reform schedules with union updating to identify counterfactual pay

# Findings

- As a result of the 2013-14 teacher pay decentralisation in England, pay declined by 1-2% overall relative to what would have happened in absence of the reform.
- Vast majority of schools departed from the seniority pay schedule
  - more than half let their pay drift down relative to the counterfactual
- Schools that let their pay drift downwards by more experienced:
  - a higher pay cut
  - a drop in their retention rate
  - a decline in the fraction of qualified teachers
- The policy has not survived:
  - “Advisory” spine points were reinstated in 2020.

# IMPLICATIONS FOR POLICY AND FUTURE RESEARCH

# Overview of Literature

- Total N studies is small for the UK
- More in the US but unclear how they translate
- Studies mainly in health, education and the civil service
- Few experimental studies
- Little evidence on cost effectiveness or value for money
- Scheme design seems to matter a lot
- Contextual factors seem to matter a lot
- What of longer-term impacts?
- Doing nothing has impacts too
  - Propper's work on national pay bargaining for NHS



# Big reforms are underway: leadership and autonomy

- Important governance reforms allowing CEOs, head teachers the autonomy to make HR decisions
- Benefits of Academisation
  - Only for the early adopters and in secondary schools (Machin/Eyles)
  - Possible gaming (eg. MATs on exclusions/changes to pupil composition (Greany and Higham, 2018))
- English hospitals (Janke, Propper and Sadun, 2018)
  - Decentralisation began in 1980s
  - Uses switchers and dif-in-dif estimators
  - CEOs have little impact on hospital performance
- Strong belief school leaders matter
  - Invoked as mechanism for Academisation effects
  - On-going work by Stokes, Bryson and Wilkinson

# The Public Sector is Different

- Providers rarely die (not the United States)
  - Not really a market
- Workers are 'different'
  - Motivation, risk preferences, professionals
  - Output is hard to monitor
  - Complex jobs and multi-tasking
- Context is often different
  - Management quality
  - Procedural fairness
  - Unions
  - Governance
- Mimicking the private sector may not be appropriate