Employee voice in management and employee well-being: the effects of organisational governance frameworks in France and Great Britain

Paper prepared for the IZA Workshop on the Economics of Employee Representation: International Perspectives, 7-8 September, 2018

Schaumburg-Lippe-Str. 5-9, 53113 Bonn, Germany

Patrice Laroche and David Marsden, 21/8/18

(Université de Lorraine and ESCP Paris, London School of Economics) plaroche@escpeurope.eu; d.marsden@lse.ac.uk

Preliminary Draft 21/8/18

NOTE: this version focuses mainly on British evidence. French evidence will follow.

1	Int	roduction	3
2	Th	eory	3
	2.1	Intrinsic and extrinsic components of work tasks	4
	2.2	Governance models	5
	2.3	Alienation, employee engagement and organisational governance	8
	2.4	Organisational governance and alienation/engagement	9
	2.5	Why compare France and Great Britain?	9
3	Da	ıta	10
	3.1	The range of governance types	10
	3.2	Characteristics of governance types	11
	3.3	Alienation/Engagement in WERS	11
4	An	alysis and results	13
	4.1	Governance forms and employee engagement (no controls)	13
5	Go	overnance forms and employee engagement for blue collar and routine occupation	ons 16
6	Co	mmitment and the interaction between governance and voice channels	17
7	En	nployee engagement and the 2008/09 financial crisis	17
8	Co	empensating differentials and employee selection of governance types	19
9	Pre	ovisional conclusions	19
1	0 Fig	gures and Tables	21
1	1 Ap	pendix 1: Organisational governance: Notes on legal requirements	35
1	2 Re	ferences (to follow)	37

0 Abstract

This paper explores the relationship between organisational governance systems and employee engagement or in more classic parlance, alienation. It is argued that governance modes, which span a range from private shareholder firms, through public purpose, to public sector and its more recent hybrid forms, support a varying range of work motivations. While the private shareholder firm tends to prioritise tasks that attract extrinsic motivation, other governance forms support a wider range of motivations reflecting their own wider orientations and lesser reliance on arm's length control systems. As a result, it is argued support higher levels of employee engagement. Data from the British (and later the French) workplace employment relations surveys are used to test the relevance of these propositions. They show that there are indeed systematic differences in engagement across governance forms, taking the private shareholder firm as the comparator, and that governance forms are more strongly associated with engagement for employees in blue collar and routine occupations, whose roles are more distant from management. These effects appear, in Britain at least, to be stronger than those of other voice channels such as unions and joint consultation. While labour markets enable workers and organisations to sort into different governance modes, there remains a question as to whether the social cost of alienation/lack of engagement contributes to the feeling among many citizens of being left out of rising global prosperity as work remains an important source of social integration.

1 Introduction

When British Prime Minister Theresa May stood on the steps of 10 Downing Street in 2016, just after she had been elected, she advocated greater employee voice in management both as a constraint on boardroom excesses and as a means of bringing the country together after the Brexit referendum had revealed the deep divide between those who have benefited from globalisation, and those who felt disempowered and left behind. Recent elections in France and in other European countries as well as in the US have brought to light similar divisions. This malaise is often framed in terms relations within the standard shareholder-led firm. However, there are many other governance models for organisations in the modern economy. The standard shareholder-led public limited company (plc) in Britain, for example, accounts for less than one firm in five, and employs less than one in four employees. France in similar, and this is a familiar pattern across the world (Morck et al 2005). Yet it is also the governance model that has inspired the most influential model of firm governance of recent years, the Principal-Agent model. Its power derives from its simplicity and clarity, yet it is also deceptively one-dimensional. By placing shareholder wealth at the centre, it narrows down the goals of both management and workers, emphasising what in the Organisational Behaviour literature would be seen as the 'transactional' as opposed to the 'relational' dimensions of the employment relationship, and the extrinsic as opposed to the intrinsic aspects of work (Rousseau, 1995). It tends to treat these as substitutes, so that workers may follow a trade-off between pay and job satisfaction when selecting job offers: they are compensating differentials. In doing so it downplays the degree to which these may be complements. Intrinsic and relational dimensions of work give it meaning, and this in turn may enhance motivation. As Quinn (1996) expressed it in a famous HBR article, workers may not just 'care how' their tasks are to be executed, but they may also 'care why', and may also see their work as a contribution to a collective activity (Heckscher, 2007).

The idea to be explored in this paper is whether other forms of organisational governance which facilitate a wider range of goals contribute more to employee engagement and well-being by giving more scope to such aspirations, and whether these are facilitated by different kinds of voice channels. The paper also asks whether organisational governance systems make a greater difference for occupations that are more distant from management, notably blue collar, and white collar and caring routine occupations. The empirical base is provided by the British and French surveys of workplace relations, and in particular by linking data from the employee attitudes surveys to those from the management questionnaires about workplace governance and practices. The present draft focuses on the British data, and the two-country comparison will figure in the next draft.

2 Theory

The core idea of this paper is that workers bring to their jobs a mix of objectives which include both extrinsic and intrinsic orientations. By extrinsic we refer to orientations that relate to rewards and sanctions, and by intrinsic, satisfactions that arise from a feeling of the inherent value or satisfaction from the work. The balance between the two varies between workers, but we believe the latter are sufficiently widespread to contribute to job choice and motivation on the job. We also argue that the two dimensions are not simple substitutes such that one may be traded against the other, but that there is a significant zone over which they function as complements, reinforcing work motivation and reducing the need for detailed

monitoring. We argue that patterns of organisational governance influence how far the pendulum swings towards one or other dimension. In the discussion section, we explore whether encouraging a wider range of governance models could contribute to a reduce feeling of disengagement or alienation among many workers, and which, it has been argued, has contribute to the current polarisation of our societies.

2.1 Intrinsic and extrinsic components of work tasks

A glance at the US jobs database, O-Net, shows that most jobs comprise quite a wide range of tasks, and although usually complementary, they can be quite heterogeneous in terms of their demands and their likely intrinsic interest. Likewise, a glance at the Sociology of Work literature shows that this variation is frequently a source of tension in the workplace. For example, a familiar tension in universities is between time spent on research, which brings kudos, and that spent teaching which brings in fee income. Over a significant range, these two kinds of activities are believed to be complementary, but the precise degree of this, and which should have priority at different times, are often also subject to dispute between professors and university authorities.

Simon's (1951) path-breaking analysis of the employment relationship confronts this question of task heterogeneity within jobs, and treats the range of tasks comprising a job as the result of an agreement between the organisation and the worker for a given wage. In other words, they agree that, for a given wage, managerial authority should apply over a range of tasks. This benefits the employer by providing a degree of flexibility when the precise mix of tasks needed is not known in advance. Simon, and before him, Chester Barnard, assumed that workers were largely indifferent between the tasks that management selected from that set, and referred to it as a zone of indifference or a zone of acceptance over which managerial authority would apply.

One can take Simon's model further, by considering negotiation over tasks that are heterogeneous in terms of the respective benefits to both parties, and treat it as a negotiation, similar to those of union bargaining over multiple objectives. The classic bargaining models see unions and employers seeking to agree a mix of wages and employment within a bargaining zone of outcomes that benefit both parties (Cartter 1959, Oswald 1985). The employer's break-even curve is given by its average net revenue product curve which is convex to the origin, and the union's, by its satisfaction curve in wage and employment space which is concave to the origin, as illustrated in Figure 1. The overlap between these two 'break-even' curves provides the bargaining zone.

This framework can be adapted to the question of tasks with varying degree of extrinsice and intrinsic appeal if we treat the horizontal axis as showing tasks ranked in order of increasing intrinsic interest, rather than employment levels as in the wage-employment bargaining model. For the employer, jobs which rely exclusively on extrinsic pay-offs involve heavy monitoring costs, whereas increasing the intrinsic interest enables the employer to engage the employee's motivation, thus reducing monitoring costs – up to a point beyond which increasing scope of intrinsic satisfactions reduces productivity. For part of the range, extrinsic and intrinsic dimensions of work are complements rather than substitutes, as the former help to focus on organisational objectives, and the latter provide a valuable additional source of motivation. For the employer, this gives rise to a preference curve that is concave to the origin, rising first, as monitoring costs fall, levelling off, and then declining as increasing intrinsic interest of tasks detracts from their extrinsic value to the employer.

Unlike the simple Edgeworth-Bowley box, where the two parties progressively seek a single position on their contract curve, in the employment relationship, there is uncertainty especially about the employer's average net revenue curve. Consequently, Simon argues, it would prefer to contract for a job with variable tasks that lie within the zone of agreement. It seeks therefore to agree a zone of acceptance instead of a precise point on the contract curve.

From the worker's point of view, the extrinsic component of tasks has to be compensated. This is done in part by pay, and in part by the intrinsic component, and the shape of the worker's satisfaction curve shows an inverse relationship between the level of pay and the degree of intrinsic satisfaction involved in the work. The intrinsic satisfaction usually comprises an element of pleasure, and more importantly, the sense that the work contributes to a wider social purpose. Thus, staff in benefits offices, beyond hitting targets set by management, see their jobs as helping unemployed people find work, and teachers contrast 'teaching to the test' in order to hit targets with developing the potential of their students.

Figure 1. A bargaining model of task diversity within jobs

Governance frameworks matter in this context because the employment relationship is not a one-off deal, but is essentially an agreement to cooperate over time, this usually involves sunk costs for both parties, for example, in recruitment, job search, and development of firm-specific skills. This makes the standard market enforcement mechanism of 'exit' problematic, and so the continued viability of the employment relationship depends upon the willingness of both parties to seek to maximise their *joint* satisfaction, rather than to use the presence of sunk costs as a pressure tactic to improve its own position at the expense of the other. Bartling, Fehr and Schmidt (2013) provide a very pertinent experimental model of how this relationship can break down if one side feels the other is behaving in bad faith. Gibbons and Henderson (2012) underline the enforcement difficulties that arise when breach of good faith is ambiguous, as it is when workloads are variable over time and in their content.

2.2 Governance models

Factors involved in the choice of organisational governance models can be seen more clearly if we explore some of the problems they have to resolve, drawing in particular, on Aoki's (2010) model. The broad argument will be that more 'arm's length' patterns of governance tend to be more conservative, leaning more to the easier to monitor extrinsic end of the spectrum, whereas the more balanced models can be more liberal, albeit at the risk that employee and manager interests may let the pendulum swing too far in the other direction. This may be good for reducing alienation, but bad for service overall.

Aoki (2010) presents corporate governance as a three-way relationship between investors, managers and workers, in which the interests of any one party can be undermined by a coalition between the other two. This conflict is tempered by the degree to which any one party has engaged important sunk costs, notably in the form of specific investments, such as in specific skills and knowledge.

Figure 2. Three actors within organizational governance.

For the most part, organisations have to choose between pre-existing governance models because they also have to function as legal entities and pay taxes. In addition, employees and managers need to know their respective rights. As a result, one may think of the current 'menu' of governance forms as ranging between two poles of ownership and control, from private firms with shareholders, through co-ownership models, such as partnerships, public purpose organisations, public sector hybrids that expanded greatly under the banner of 'New Public Management' and which often borrowed heavily from private sector practice, and the standard public sector. In private firms, the role of investors is played by shareholders, and in the standard public sector, this role is played by the state. In between, the role of investor varies considerably, but a common factor is the need to find a viable balance between the three sets of actors.

a) The private shareholder firm

In the shareholder firm, there is the classic principal-agent hierarchy in which shareholders are the principal, and can maintain their position by the right to hire and fire managers, who, in turn, can hire and fire workers. Aoki (2010) argues that this model works well provided exit options exist at all points, so that for example shares are easily tradeable, and both managers and workers can be fairly easily substituted by external hiring, which in turn means that dependence on firm-specific skills should be minimised. Investors can protect themselves against management pursuing its own private objectives in two ways: by incentive design, for example, linking top management pay to changes in share values; and by limiting their exposure in any single firm, and engaging in arm's length 'extensive' 'intensive' monitoring (Prowse, 1994). As Aoki points out, alternative governance models are needed if these relations of substitutability weaken, and the parties become locked into the relationship. This can occur for a number of reasons, including shared knowledge assets, but also when there are significant public goods involved, and when there is a need for social determination of organisational objectives. These considerations give rise to a number of alternative models of organisational governance.

b) Co-ownership patterns: partnerships and cooperatives

Where knowledge assets are distributed, and substitution is more difficult, an alternative governance model is to share ownership, as in the case of partnerships and cooperatives. This mitigates the problem that would otherwise arise whereby managers and workers could form a coalition at the expense of investors. Aoki considers the case of start-ups in knowledge in innovation intensive activities, but a similar logic would seem to apply in longer established forms such as partnerships and cooperatives.

Partnerships in essence involve fusion of the investor and management functions, whereas cooperatives involve fusion of the management and worker functions. Many partnerships work on a project basis, for example, architects, and the risk of collusion between managers and workers against investors is mitigated by the need to compete for contracts. Partners are often in the position of 'player managers', and so close to the core service that is provided. As a result, they are open to both the extrinsic and intrinsic dimensions of the work. Although the associates in a partnership may work like straight employees, they are also aspiring to become partners, and are being socialised into the wider goals of the partnership and its profession. A similar logic applies in the case of cooperatives.

Thus, overall, compared with plcs and private limited companies, one could expect the scope for satisfying intrinsic dimensions of work would increase as the emphasis on serving the public good increases.

c) Public purpose organisations

Public purpose, non-profit, organisations, such as charities, have some to assume an increasing role within the modern economy. Their obligation under current UK legislation to serve the 'public benefit' precludes political purposes and opposition to public policy. In theory, the primary motivation is to serve the general and not the private good, although their workforce comprises both volunteers, whose motivation one supposes is primarily intrinsic, and employees, whose motivations will comprise both types.

In recent years, many such organisations have assumed a key role in the 'voluntary sector', often taking on government-funded projects, for example, for elderly care (Antunes, 2010). From the government's viewpoint, such projects enable the state to harness volunteer motivation, which might be stifled by the constraints of a large public sector bureaucracy, but it cannot directly control where the balance between extrinsic and intrinsic motivations is drawn. A common solution, which fits closely with one of Aoki's (2010) models is that of funding on a project basis, whereby managers and workers together compete for funded projects.

d) Hybrid social ownership forms

The 'New Public Management' sought to address some of the more serious dysfunctions of the traditional public service model, by importing management practices and concepts from the private sector. This has given rise to a number of hybrid governance forms in which the state retains the role of 'investor', while establishing new governance arrangements. Examples include the devolving of functions from government departments to specialist agencies and 'quangos' (quasi-autonomous non-governmental organisations). To varying degrees, these forms seek to establish an 'arm's length' relationship with the state. This involved in part a clarification of the position of the state as principal. This sought to reduce the problem of 'multiple principals' as government processes frequently involve different levels, such as national and regional, which might both seek to have a say concerning organisational objectives, and which managers and employees could play off against each other. The political process could also give rise to conflicting objectives, and as political agreements often depend on compromise, these too could be played one against another by managers and employees (see Dixit and Tirole).

However, setting up hybrid bodies is itself a political process, and can be driven by political expediency, so practice may deviate somewhat from the theory. In the UK, such bodies have grown rapidly, to the point at which the 2010 Conservative-Lib-Dem coalition government called for a review into their transparency, accountability and value for money. The ambiguities in the role of the principal, although a possible source of inefficiency, also proved to provide scope for employees to maintain a focus on the wider purpose of their work. This was evident in the conflicts of the 'culture of targets' which many front-line employees felt conflicted with their primary objective of helping access public services (Hood et al, 2010).

e) Standard public sector

The classic case for public sector control has been based partly on market failure in certain types of activity where competition is hard to enforce, such as in the case of the classic nationalised monopolies, of which there are few these days, and partly on the need for certain activities to serve a need that is wider than that covered by effective private demand, such as universal healthcare, education and security. In this case, the state assumes the role of investor. Unlike private investors who are assumed to be consistently maximising their wealth over time, the state expects public services to reflect the changing priorities of citizens, as expressed in elections and changes in government. Thus, public employees are expected to serve alternating governments equally conscientiously. In the words of the US federal service, they are expected to work as 'neutral competents' (Betters). This does not preclude a focus on the wider perspectives of their work, but it does entail serving the public according to different priorities as governments change. Nevertheless, this model created a degree of organisational slack that allowed public employees and professionals to focus on a broad concept of service to the public, a 'public service ethos' (Koumenta), which enabled a balance between the extrinsic and intrinsic dimensions of their work.

To keep this in balance, one former solution has been bureaucratic control, however, this has been found to be inimical to citizen-centred public services, stifling the benefits of intrinsic motivation. In more recent years, several governments have sought to borrow ideas from the private sector, notably to substitute central bureaucratic control by setting up 'quasi-markets' in which smaller public service providers, such as schools and hospitals, while still owned by the state, are given greater managerial autonomy, subject to achieving certain outcomes (meeting pre-established targets).

2.3 Alienation, employee engagement and organisational governance

In his classic study of modern factory work in the 1950s, Robert Blauner (1964) identified four characteristics of industrial work which echoed those of Marx from a century earlier. The employment relationship in the modern workplace left workers with a sense that their work tasks lacked intrinsic *meaning*, their work situation left them feeling *isolated*, decision-making processes relating to their jobs left them feeling *powerless*, and the totality of the work situation deprived workers of social contribution of their work, what Blauner described as 'self-estrangement'. A similar critique of modern work organisation developed in France with the studies of Georges Friedmann, Alain Touraine and Serge Mallet, and inspired the pioneering studies of Hackman and Oldham on job satisfaction, and the 1973 US Task Force report 'Work in America'.

In contemporary parlance, one could associate these more macro-social concepts with the following:

- Lack of intrinsic meaning: trust. A lack of trust in the work environment makes management decisions appear arbitrary and inconsistent, so it hard for employees to ascribe intrinsic meaning to their tasks;
- Isolation: is the opposite of the modern concept of organisational commitment, which is based on social integration into the workplace, sharing the values of the organisation, feeling loyal to it, and proud to be a member, and if necessary.

- Powerlessness: can be engendered by a feeling of lack of influence over workplace decisions, and a lack of relevant information relating to them. It may also be reflected in the feeling of a lack of scope for individual bargaining to resolve individual issues with management.
- Self-estrangement: satisfaction with the sense of achievement, and self-determination in one's work.

2.4 Organisational governance and alienation/engagement

In a famous Harvard Business Review article, Walton (1985) contrasted two strategies for managing organisations: one based on control and one based on commitment. The control strategy relies heavily on close performance monitoring and use of extrinsic sanctions and rewards. The commitment strategy, on the other hand, relied much more on harnessing employees' intrinsic motivations by encouraging shared values, and reinforcing this with signals of continued management good faith such as investments in training, building commitment as a two-way process in a manner not dissimilar to Akerlof's analysis of the employment relationship as a 'partial gift exchange', and Gibbons and Henderson's focus on relational contracting in employment. Although much of the work in Organisational Behaviour has focused on attitudes and dispositions involved in commitment (such as affective commitment) and in 'psychological contracts', which is appropriate when one is dealing with individual employees, organisations and 'management' are not individuals and so cannot have attitudes and dispositions. What they do have, however, are routines, regular practices and patterns of behaviour which can signal to employees whether their feelings of organisational commitment, and their personal perceptions of what the organisation owes them, and what they owe it, are well-grounded or not.

The contention of this paper is that modes of organisational governance give rise to regular patterns of behaviour by the actors occupying key organisational roles. These are underpinned by the type of governance model chosen for the organisation. Thus, those in managerial roles within private companies are constrained in how much scope they can allow to employees to satisfy the intrinsic motivations of their work in a much tighter way than in some other governance forms where such motivations form part of the organisation's objectives, such as in public purpose organisations or state schools.

2.5 Why compare France and Great Britain?

At the heart of the paper's investigation is the idea that different patterns of organisational governance affect the degree to which an organisation's objectives may be summarised in a single indicator, such as shareholder value, or embrace a wider range of objectives which are not so easily reducible. We hypothesise also that the array of organisational objectives will also affect the working of employee-management voice channels within organisations, and these will affect employee outcomes such as trust of management, organisational commitment, employee influence, job satisfaction, and individual bargaining autonomy. Despite having two broadly similar economies, France and Great Britain have contrasted regulatory frameworks. France has traditionally placed greater emphasis on the legal basis for workplace governance, whereas Britain has relied more on voluntary and negotiated arrangements. Thus, in the first case, institutional arrangements are more 'exogenous' to the workplace whereas in the second, they are more 'endogenous', so that in the second case, one

might expect a closer fit between these arrangements and business needs than in the first. There have also been several recent reforms in both countries of institutional voice channels over the period of the two surveys. In France, there have been important changes to the rules on union representation, and in Britain, provisions for joint consultation were given a boost by implementation of the ICE regulation (Information and Consultation of Employees), between the surveys of 2004 and 2011, and for France, additionally of 2017. Because several of the changes in legal provisions for employee voice in France (works councils and personnel delegates), and ICE regulations in Britain, are subject to employment size thresholds, we propose to use a mix of panel and threshold measures to separate 'institutional' from background 'country' effects.

3 Data

The principal data source is provided by the workplace employment relations surveys of France and Great Britain for 2004 and 2011, REPONSE and WERS. These provide linked employer-employee surveys so that it is possible to link employee accounts of their perceptions of the management in their workplace with information provided by senior managers on the governance of that workplace.

3.1 The range of governance types

The WERS interviewers show senior management representatives a card with the twelve organisational governance types and asks them to identify which best describes their organisation. In order to operate in the commercial world, organisations must select from one of the available legal forms on the menu. In the box below, the WERS headings have been grouped according to the categories of governance discussed earlier. A fuller explanation of the legal forms is provided in the appendix.

Box 1: matching of governance types with those listed in WERS

a) Classical private firm

- 1) Public Limited Company (PLC)
- 2) Private limited company

b) Co-ownership forms

- 4) Partnership (incl. Limited Liability Partnership) / Self-proprietorship
- 7) Co-operative / Mutual / Friendly society,

c) Public purpose vocation

- 5) Trust / Charity
- 6) Body established by Royal Charter
- 3) Company limited by guarantee

d) Public sector hybrids

- 9) Public service agency
- 11) Quasi Autonomous National Government Organisation (QUANGO)
- 10) Other non-trading public corporation

e) Classical public sector

- 8) Government-owned limited company / Nationalised industry / Trading Public Corporation
- 12) Local/Central Government (inc. NHS and Local Education Authorities)

3.2 Characteristics of governance types

It is often hard to get a feel for the range of factors that could be influencing employee engagement under different governance modes without a fuller picture of the nature of the organisations that fall under each heading, A brief overview of some of the main characteristics of such workplaces is provided in Table 1. The largest employers are public and private limited companies, accounting for about 55% of employment, and public administration and services, which account for about 20%. The other governance forms account for about a fifth of employment, and a similar proportion of workplaces.

A defining characteristic of plcs is that they are able to raise capital on the stock market, and of these 59% were listed on the stock market in 2011. Plcs also had more complex structures than many other forms, being more likely to be foreign owned (32%), facilitated by being able to raise capital on the stock market, are more likely to be subsidiaries (323%), and less likely than private limited companies to be family-owned, and with owner-managers.

Co-ownership forms are almost entirely UK-owned, are somewhat smaller than private firms, and a high percentage of partnerships are single establishment firms in business services and health care. However, one major supermarket chain has also adopted this mode of governance. Public benefit organisations are almost entirely UK-owned, and many are long-established. Charities have expanded their work in recent decades by undertaking publicly funded work in their area. Royal charter organisations include many professional and learned associations, and educational institutions, and universities (hence the high age and large employment of some). With successive privatisations, nationalised industries have greatly reduced their share of employment, some of which has been taken up by the expansion of public services. Public hybrid organisations grew strongly until the election of the Conservative/Liberal Democrat coalition in 2010. The new coalition embarked on a programme of rationalisation and reduction of these bodies largely because of fears that some represented poor value for money and in order to increase transparency.

Analysis of changes of governance status between 2004 and 2011, using the WERS panel sample, shows great stability overall. The big switches of status were between plcs and private limited companies, where about 6% of workplaces overall moved in either direction, and a number of partnerships took on plc status.

Table 1 Characteristics of panel workplaces 2011 by governance mode

3.3 Alienation/Engagement in WERS

The employee questionnaire for WERS was designed with research on employee well-being and work organisation in mind. It therefore adopted a reduced version of a number of scales used by researchers in this field. Thus with a bit of simplification required for a large scale omnibus survey, the employee attitudes measured are quite close to the more detailed instruments used for more specialised research on these topics. The advantage of the WERS and REPONSE employee questionnaires is that they can be linked to nationally representative surveys of establishments and their workplace management practices.

Box 2. WERS measures of employee engagement/alienation

Trust

Managers here:

- Can be relied upon to keep to their promises
- Are sincere in attempting to understand employees' views
- Deal with employees honestly
- Understand about employees' responsibilities outside workplace
- Encourage people to develop their skills
- Treat employees fairly

Resolved onto a single factor (mineigen=1) alpha=0.9237

Commitment

- Using my own initiative, I carry out tasks that are not required as part of my job
- I share many of the values of my organization
- I feel loyal to my organization
- I am proud to tell people who I work for

Resolved onto a single factor (mineigen set at 1) alpha = 0.8491

Satisfaction

How satisfied with the

- sense of achievement from work
- scope for using your own initiative
- amount of influence you have over job
- training you receive?
- opportunity to develop your skills in your job
- amount of pay you receive?
- Your job security?
- The work itself?

Resolved onto a single factor (mineigen = 1) alpha=0.8273

Influence

Overall, how good are managers at:

- seeking views of employees/employees' reps
- responding to suggestions from employees/worker reps
- allowing employees/worker reps influence final decision

Resolved onto a single factor, mineigen=1 alpha = 0.9238

Information

How good are managers at:

- telling staff about changes in how organisation is run
- informing employees about changes in staffing
- informing staff about changes in the way you do your job
- informing staff about financial matters

Resolves onto a single factor, alpha=0,9065

Scope for individual bargaining over pay

Ideally, who do you think would best represent you in dealing with managers here about getting increases in your pay? Select one from: myself, trade union or non-union representative, line manager, another employee.

For the analysis, the WERS employee questionnaire scales on the items included in the box were condensed into indices using factor analysis for the full panel sample for 2004 and

2011. The box reports the Cronbach alpha coefficients for each measure which are all high. The one exception is the measure of employees' beliefs about their scope to represent themselves to management in order to deal with issues of pay. This was a single question.

4 Analysis and results

4.1 Governance forms and employee engagement (no controls)

As a first step, the indices of employee engagement were regressed on the thirteen governance modes. The results are shown in Table 2. Because much of the literature on organisational governance takes the private firm as the standard case, it was also taken here as the comparator case with the other modes being shown as deviations from it. It has also been the point of reference for the 'New Public Management'. The regression coefficients show therefore the difference between a particular governance and the private shareholder (plc) firm. Where the coefficients are not statistically significant, one may suppose that the workplace using the mode in question are not much different from the plc model for the measure of engagement shown. Thus employees in partnerships score about +0.44 higher than those in shareholder firms for trust, and +0.26 for commitment. Factor sores have a mean of zero and a standard deviation of one, which means that roughly two thirds of observations lie between plus and minus one.

Table 2 Governance systems and employee engagement (without controls, plc base case)

A first point to note is that there are clear differences between the governance forms for which WERS collected information in terms of all of the measures of employee engagement. Partnerships, public benefit organisations, public education and healthcare all score more positively than plcs. Trust, commitment and satisfaction appear to follow a broadly similar pattern, being more positive for partnerships, public benefit organisations, and public education and health care. Influence and information follow a broadly similar pattern, but it is somewhat weaker, and the r2 is lower than for the previous three measures. The perceived scope to negotiate one's own pay (Myself_pay) follows a broadly opposite pattern, being strongest in private firms and co-ownership organisations, but weaker in the public sector. Of course, this is only a first overview, and it is necessary to consider a number of other factors that could mitigate the apparent relationship between governance mode and measures of engagement. It is to some of these that we now turn in preparation for running the same regressions with a full set of controls. The most important of these are likely to be the type of work system used, the presence of different channels of employee voice, such as unions and workplace representatives, and individual establishment and employee characteristics.

Work system

It is well-known that work systems can exert an influence on employee engagement, and their distribution across governance models could explain at least some of the apparent effect of governance on engagement. Evidence from the management questionnaire was used to divide workplaces according to the degree to which they relied on high or low degrees of job discretion by their employees, and whether they used high or low levels of team working. Multiple correspondence analysis (MCA, a form of factor analysis for binary variables) was used to categories workplaces into four types, close to those identified by Lorenz and Valeyre

(2005) and Holm et al (2010). This was based on the work organisation information provided by the management questionnaire. The links between these four types of work systems and different dimensions of employee engagement are shown in Table 3, which displays the weighted means for each engagement dimension, with corrected standard errors. The asterisks show whether the means for a given work system differ significantly from that of the base case, systems with high discretion and low teams.

Table 3. Employee alienation/engagement and type of work system.

Although the most common work system across governance modes is the of high discretion combined with low use of teams, there are some notable differences among modes (Table 4). Private firms, both plcs and private limited companies, and cooperatives were the main adopters of high team-working combined with low task discretion for employees, a model close to what Wood has described as 'team taylorism', the main change from the 1970s an 1980s being that team working has replaced the former individualised work stations. That cooperatives should be such high adopters of this model may reflect the inclusion of some large retail cooperatives. Among partnerships, some organisations make extensive use of the low-discretion/low teams model, which reflects the presence of organisations which are run by partners while employing large numbers of caring and administrative employees. The high-discretion high-team workplaces are less common, and their greater frequency among workplaces governed by Royal Charter comprise many professional bodies.

Because work organisation also has a demonstrable impact on employee engagement, note that the first was based on management respondents and the second on employee respondents, there was a clear case for including it among the control variables when assessing the link between governance and engagement.

Table 4 Use of different types of work system by corporate governance mode

Voice channels

Both collective bargaining coverage and the presence of a local workforce representative or shop steward vary across governance types, notably being more strongly present in the public sector than in private firms. These also are likely to affect employee engagement by providing a channel for enforcing workplace agreements, as well as a measure of protection against potential acts of bad faith by management (Doucouliagos, Freeman, and Laroche, 2017). Especially in the large number of non-union workplaces, one might expect a similar influence on engagement from some of the voice channels where management initiative arguably plays a larger role, such as joint consultation, workplace meetings and employee briefings, especially in the large number of non-union workplaces. The presence of an HR director on the company board could also be expected to raise the profile of HR in top management decision-making. Therefore, all of these were included among the control variables.

Establishment and employee characteristics.

Finally, a number of establishment and employee characteristics were considered. Employment size is widely regarded as a factor influencing the degree of formalisation of workplace relations, and this in turn could affect how engaged employees feel in their organisation. Similarly, if the workplace one of many controlled by the same management, or is a single establishment enterprise. This would affect the degree to which workplace relations are conducted at 'arm's length'.

Among the individual controls, the level of education, whether or not someone has a higher education degree, and whether they are paid above upper quartile earnings, could reflect their social proximity to management, and hence greater involvement in shaping the organisation's goals. In terms of the argument about extrinsic and intrinsic motivators, closer involvement with management decisions is likely to give rise to a greater understanding of the context in which individual tasks are set, and so to give them greater meaning to the employee. Likewise, the employee's perception of their ability to negotiate their own deals with their employers could be thought to boost confidence in engagement because one feels one can hold management to commitments that it makes.

The length of time an employee has served in an organisation, their length of service, could also affect various measures of commitment, such as affective commitment which is built upon social relations with one's co-workers, and which take time to develop (Meyer and Allen, 1997). Other dimensions of commitment, notably acceptance of the organisation's normative goals may take time to develop, as does commitment based on one's economic stake in the organisation ('continuance' commitment). Gender differences are also notable in this area, and given the different concentrations of women and men employees by governance mode, this was also included.

These controls were included in Table 5, which is a re-run of the regression in Table 2. The most striking conclusion is that although they all prove to be influential, shown in the increased r², they do not eliminate or fundamentally change the picture shown in Table 2 without inclusion of these controls.

Table 5: Governance systems and employee engagement (with controls, plc base case)

Rather than 'eye-ball' the coefficients on governance modes with and without controls, we computed correlations of the coefficients on governance modes both between measure of engagement and between their values without and with the controls. These are shown in Tables 6a and 6b.

Take in Table 6a Additional controls do not change the ranking of governance form coefficients, and Table 6b

Table 6a shows the correlation coefficient between the regression coefficients on governance modes, first without controls and then with progressively increased controls. Thus the correlation between the regression coefficients for the 13 governance modes for trust with and without controls is 0.74 and for commitment, 0.95. This suggests that the inclusion of the additional factors in the regressions leaves the impact of governance forms on engagement fundamentally unchanged.

As an additional check on the stability of the regression coefficients over time, we also compared those for 2004 with 2011. The correlation between the two sets of year coefficients, shown in Table 6b is high. This reinforces confidence in the observed relationships

5 Governance forms and employee engagement for blue collar and routine occupations

One of the pressing questions raised in the introduction was whether engagement among employees at the base of the pyramid varied with the mode of organisational governance. It has long been known that managerial and professional employees work in much greater social proximity to top management and investors than do those employed in less skilled and more routine types of work. Therefore, one might expect the latter group to be more distant under all types of organisational governance, so that the most proving test of the effects of governance models on engagement would be to examine the effects for workers in this category. Rather than split the sample, it was decided to interact an employee's presence in one of the latter occupational categories with each governance type, as with the approach taken to voice channels. The interactions show how the effect of the governance type affects engagement depending on whether the employee is in an occupation that is close to or distant from that of top management. The blue-collar and routine occupations include the following: Admin and clerical, Skilled, Caring, Sales and customer relations, Process, and Elementary occupations, respectively Major Groups 4-8. The omitted occupations are Managers, Professionals and Associate Professionals. As before, the point of comparison in the public limited company (plc).

Table 7. Governance forms, engagement for employees in routine occupations

The results in Table 7 confirm that, overall, being in a blue-collar or routine occupation has a strongly negative effect on levels of employee engagement, with coefficients mostly around 0.25-0.35, and all highly statistically significant. However, when we turn to the interactions, which show how the relationship varies across governance modes, a much nuanced picture emerges. Compared with private shareholder firms, plcs, the main coefficients are mostly negative, but the interactions with blue collar and routine occupations are mostly positive, and significant. They are also smaller in absolute size than the coefficients on belonging to one of the less qualified occupations. This suggests that a negative net effect of working in even private non-plc firms on engagement.

This position contrasts with many of the other governance modes where the positive coefficient on the interaction term is of similar absolute size or larger than the negative coefficient on being in a routing occupation, and it is also usually larger than the negative coefficient on the main effect of working in the sector.

Some of the exceptions to this overall picture may be due to the small sample numbers for some of the intermediate and hybrid forms, but a particularly interest one is that of publicly owned businesses, what used to be called 'nationalised industries'. Again, with some caution because of their diminished number, these appear to behave a bit more like private firms in terms of employee engagement. WERS shows that a large proportion of these workplaces were in the transport sector, which was being prepared for transfer to the private sector.

Overall, this suggests that the beneficial effect of non-private governance forms on employee engagement is greater among employees in the blue collar and routine occupations. As these are the employees most likely to be assigned tasks that lack a strong intrinsic dimension, this is consistent with the earlier argument that governance forms that admit a wider range of objectives than wealth maximizing are better able to enlist employee engagement, especially among those who are in the weakest position to insist on this.

6 Commitment and the interaction between governance and voice channels

The association between voice channels and governance modes provides a supplementary and possibly an alternative explanation to the relationship between governance modes and engagement. Doucouliagos, Freeman and Laroche (2017) review the arguments whereby independent voice channels, notably unions, councils and workplace representatives may boost firm performance. In summary, one might say that by promoting workplace transparency and enabling management to make credible promises, that workers can enforce if necessary, they provide at the very least a possible complement to the influence of governance forms. Indeed, where they are present, they constitute part of the workplace governance, albeit a distinct one from that of ownership patterns.

In Table 5, a number of independent and management-led voice channels were included as controls. These showed that joint consultation, high percentages of employees covered by a collective agreement and joint consultation bore broadly negative or non-significant associations with engagement. The same was true of management briefings. The exception was the frequency of meetings between management and employees. The negative results were somewhat puzzling, but could be due to a common factor causing both lower levels of engagement and stimulating employees to seek union protection. Moreover, it does not preclude significant variation between establishments subject to different governance modes. This was explored, again using the method of interactions between voice channels and governance modes and examining their effect on engagement. For this exercise, we limited engagement to commitment because it was one the measures that had the most consistent effects.

Including the interactions for agreement coverage, presence of a shop steward, joint consultation and the scope to negotiate one's own pay, the collective voice channels appeared to have rather a small effect both overall and within individual governance modes. The chief exception related to collective agreement coverage appeared to reinforce commitment in a number of public service organisations.

The other exception related to the scope for individual voice over pay which had a strong and significant general effect, although where the interactions were statistically significant, they were mostly negative, and concentrated in the public and hybrid modes, suggesting that public service organisations that provide scope for individual negotiation may behave more the like the private sector, at least in relation to organizational commitment,

In Britain, unlike in France, there has been a notable decline in union-based workplace representation, and outside the public sector, its coverage had dropped to below 15% by 2011.

Table 8. Interaction of governance types and voice channels

7 Employee engagement and the 2008/09 financial crisis.

It was mentioned earlier that many of the measures of employee engagement, especially, trust, commitment and influence, take time to develop, and depend upon reciprocal acts of good faith. This cannot be tested directly using WERS, but an indirect test is whether the job

and pay cuts that followed the arrival of the financial crisis caused employees to lose faith in their management and to disengage from their employers.

WERS shows that the impact of pay and job cuts was quite widespread across governance modes, and that plcs were among those with least job and pay cuts (51%) of workplaces, compared with less than 20% of public services workplace, which reflects the effect of the government's austerity package which sought to stabilise government accounts after the bailouts.

To explore the effect of the shock to engagement provided by the crisis we compare engagement among employees hired before and after the crisis. If management's response to the crisis damaged the process of reciprocity on which engagement is built, undermining trust and leaving employees with the feeling that their commitment to the organisation was a one-way street. In such cases, one would expect lower levels among pre-crisis hires, who had experienced management's programme of job and pay cuts. This is indeed borne out in aggregate by Table 9, which shows lower levels of engagement among current employees in the organisation who had been hired before the crisis.

Table 9 Impact of financial crisis adjustment on employee engagement: employees hired before and after crisis (2011 data)

A fuller treatment of this question is planned.

8 Compensating differentials and employee selection of governance types

Before one can draw any welfare conclusions from the analysis so far, one needs to take account of potential factors of individual choice. If workers choose jobs with a higher extrinsic component and that require lower levels of engagement because they receive compensating wage differentials, who are we to pass judgement?

To explore this, we computed Mincer earnings functions using the pay-range data from the employee questionnaire, and for explanatory variables, years of education, labour market experience, age and age squared, and gender. From this, one can estimate roughly whether workers are paid above or below what they should be paid for their 'human capital'. At present, this is very much a 'back of envelope' calculation. A positive residual implies the person is paid above what would be expected on the basis of their skill and experience, and so could be regarded as a 'compensating differential' if they are in adverse working conditions. Because individual reports of pay may be inaccurate, the same was calculated at the workplace level, taking the average residual. In a separate analysis, not shown here, we observed that engaged employees tended to work in establishments with high rates of engagement, subject to the finding in Table 7 that employees in blue collar and routine occupations tend to be less engaged.

We observe that higher residual payments are negatively and significantly correlated with the measures of engagement, the exception being the perceived scope to negotiate over one's own pay. This was equally applicable whether one took the residual for the individual or the average residual for those in the same workplace. Prima facie, this suggests that there is some kind of compensatory mechanism, but given the widely attested difficulty of estimating compensating differentials for working conditions, clearly caution is needed.

Table 10. Compensating differentials: correlation Mincer pay residuals with engagement

9 Provisional conclusions

This paper began with a reflection on the current deep political divisions within our liberal democracies, and the widespread belief that this is due in part to large sections of the population, and notably those in blue collar and routine occupations feeling that they have been left behind in the race for global prosperity. This paper has looked at one small, but potentially important part of this picture, namely the scope for people's engagement through their work. The reference to Robert Blauner's work was deliberate, as this was an influential part of a wave of studies of work encapsulated in the 'blue collar blues' of the US government task force 1973 report on 'Work in America', and which coincided with a previous upsurge of worker alienation.

How organisations are governed has been very much dominated by our understanding of private firms, and much of the debate about public sector reform has taken the private firm as a model of good practice. Yet, as we argue in the theory section of this paper, private firms, and especially those subject to arm's length shareholder control, may define work objectives in a narrower and more abstract way that organisations with less constraining governance requirements. This is not to demonise private shareholder firms. Many of their shares are held

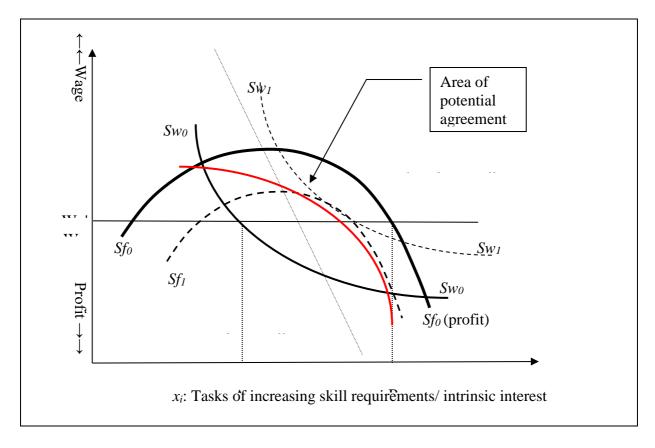
by our pension funds, but as potential pensioners, we are concerned about our income security post retirement rather than the conditions of those who work after we have retired. But the narrowing of objectives, we suggest, has the effect of shifting the balance within jobs to prioritise the more extrinsic dimensions of work at the expense of the more intrinsic ones. Of course, the issue is not black and white, because, as we argued, giving scope to intrinsic elements of work also reduces the need for close monitoring, albeit only up to a point. We argued that intrinsic motivation which arises from a wider sense of the purpose of one's work enables stronger employee engagement. Because the optimal balance is hard to evaluate, especially in arm's length relationships, private firms will tend to opt for the more easily measurable extrinsic components whereas in governance forms where management and workers can collaborate more closely, and where the organisation's objectives are themselves more widely drawn, it is possible to push the pendulum further in the opposite direction before diminishing returns set in.

In a free labour market, we must respect the trade-offs agreed between individual workers and their employers, but there are other social considerations to bear in mind. The first concerns the extent to which the private firm is a model to be emulated across all activities. If we treat the current distribution of modes of governance as the outcome of an equilibrium based on free choice by organisations and workers, then the forced extension of one model to other areas may be sub-optimal. A similar argument was made in the context of institutional theory: early innovators developed organizational models that were well-suited t their needs, but other organistions that subsequently followed their example obtained only disappointing returns (Tolbert and Zucker).

The second relates to the social cost of individual choices. One of our most striking findings, if confirmed in subsequent work, is that the non-private forms of governance were associated with higher levels of employee engagement. In other words, the very socio-occupational categories that seem to have been left behind in recent economic developed in the advanced economies are those that benefit most in terms of finding positive engagement in their work. As work continues to occupy a large fraction of our waking lives, and remains a key form of social engagement, the warning of the US task force about worker alienation seems as relevant today as it did in the early 1970s.

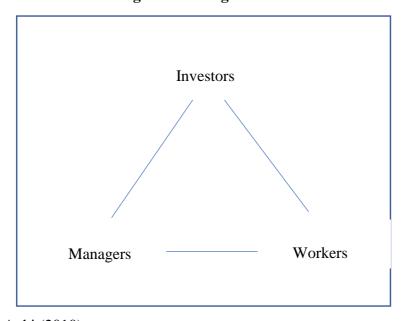
10 Figures and Tables

Figure 1. A bargaining model of task diversity within jobs



Source: Adapted from Simon (1951), and Marsden (1999: ch 1). For a simple explanation of the shape of the employer's curve Sf_0 see Cartter (1959: ch 8).

Figure 2. Three actors within organizational governance.



Adapted from Aoki (2010)

Table 1 Characteristics of panel workplaces 2011 by governance mode

Governance Models	Stock market listed	UK owned All / Mainly	Family- owned >50%	Owner- Manager (family firms)	Single Estab	Franchise	Subsid- iary	Mean Emp	Mean Estab Age	Weighted count Estab wts	Weighted count Emp wts
Classical private											
Public limited company plc	58.7	67.9	21.4	15.0	15.1	1.4	31.8	70	47	15.6	23.0
Private ltd company	0.0	86.0	67.6	54.1	47.5	2.8	12.4	38	24	48.0	32.9
Co-ownership											
Partnership/ self-proprietorship	0.0	99.9	0.0	0.0	78.7	0.6	1.1	32	34	10.0	6.8
Co-operative, mutual, friendly society	0.0	100.0	0.0	0.0	15.9	0.0	1.7	70	35	1.7	0.8
Public benefit											
Trust / charity	0.0	99.8	0.0	0.0	31.3	0.0	7.6	75	92	5.1	7.3
Established by Royal Charter	0.0	100.0	0.0	0.0	78.3	0.0	0.0	611	69	0.1	1.7
Company ltd by guarantee (non-profit)	0.0	99.8	0.0	0.0	78.2	0.0	0.0	28	22	1.7	0.8
Public hybrids											
Public service agency	0.0	0.0	0.0	0.0	15.1	0.0	0.0	130	53	1.0	2.5
Quango	0.0	0.0	0.0	0.0	82.9	0.0	0.5	9	13	0.9	0.2
Other non-trading public	0.0	0.0	0.0	0.0	7.2	0.0	0.0	86	36	0.3	0.5
Classical public											
Local/central gov (incl ed & health)	0.0	0.0	0.0	0.0	13.0	0.0	0.5	127	57	12.1	19.9
Gov-owned ltd co	0.0	0.0	0.0	0.0	0.8	0.0	0.0	46	63	3.7	3.5
Total	8.7	70.3	35.5	28.3	38.8	1.6	11.3	57	38	100.0	100.0

Notes: Estabs with 5 or more employees. Estab weights (except right hand col) MQ data. Worksheet: workplace gov characteristics, panel sample, no of observations 989. Figures refer to the percentage of workplaces in each governance type. Thus, 59% of plcs are listed and 68% are wholly or mainly UK-owned.

Source: Excel: WERS_corp_gov correlates; sheet: workplace gov characteristics

Table 2. Governance systems and employee engagement (without controls, plc base case)

	Trust		Commit		Satis		Influ		Info		Myself pay	
Classical private firm												
Privlc	0.089	+	0.034	-	0.023	-	0.030	-	-0.017	-	0.142	****
Co-ownership												
Partner	0.436	****	0.250	****	0.317	****	0.316	****	0.216	***	0.303	****
Coop/Mutual	0.148	*	-0.056	-	-0.373	***	0.116	+	-0.023	-	0.295	****
Public benefit												
Charity	0.196	****	0.279	****	0.175	****	0.116	+	0.098	+	0.008	-
Charter	0.196	-	0.379	**	0.312	**	0.123	-	0.072	-	-0.006	-
Cogarantee (non-profit)	0.396	****	0.460	****	0.339	****	0.308	****	0.383	***	0.260	****
Public hybrid												
Public_agency	-0.073	-	-0.029	-	-0.117	+	-0.069	-	-0.008	-	-0.185	****
Quango	0.306	****	-0.006	-	-0.120	***	0.360	****	0.381	****	-0.099	****
Other_pub	0.040	-	0.216	+	0.213	****	0.145	-	0.026	-	0.024	-
Classical public sector												
Pub_educ	0.407	****	0.462	****	0.308	****	0.307	****	0.255	****	-0.093	**
Pub_health	0.061	-	0.131	**	0.151	*	0.072	-	0.086	-	-0.094	*
Pub_admin	0.006	-	-0.075	-	-0.060	-	0.029	-	0.060	-	-0.137	****
Gov_owned/nationalised	-0.266	**	-0.179	**	-0.353	****	-0.101	-	-0.187	+	-0.217	****
Year	0.009	*	0.022	****	0.018	****	0.006	-	0.015	**	-0.014	****
_cons	-17.703	*	-44.507	****	-35.261	****	-12.032	-	-30.650	**	27.849	****

						Myself
	Trust	Commit	Satis	Influ	Info	pay
Number of obs	14,839	15,000	14,816	14,625	14,651	15,267
F(14, 599)	10.15	25.31	26.38	9.35	20.04	39.84
Prob > F	0	0	0	0	0	0
R-squared	0.0226	0.0396	0.0359	0.0115	0.0134	0.0871
Root MSE	0.94654	0.89041	0.91227	0.93499	0.94109	0.46295
clusters	600	600	600	600	600	600

Note: the coefficients relate to factor scores computed over responses to several questions, with a mean of zero and a standard deviation of +/-1. Myself-pay, being a dummy variable, has a value of 0/1. Source: Excel: WERS_corp_gov_correlates; sheet: a status & work system

Table 3. Employee alienation/engagement and type of work system.

	Mean	Std. Err.		Mean	Std. Err.	
2004/11						
	trust			commitment		
hi_disc hi_teams	-0.033	0.047	**	0.058	0.044	ns
hi_disc lo_teams	0.077	0.028	base	0.059	0.030	base
lo_disc hi_teams	-0.122	0.060	**	-0.159	0.041	**
lo_disc lo_teams	0.100	0.056	ns	-0.057	0.050	**
	satisfaction			influence		
hi_disc hi_teams	0.015	0.038	ns	-0.002	0.040	**
hi_disc lo_teams	0.051	0.024	base	0.056	0.024	base
lo_disc hi_teams	-0.149	0.029	**	-0.081	0.059	**
lo_disc lo_teams	-0.036	0.050	**	0.023	0.052	ns
	information			Myself_pay		
hi_disc hi_teams	0.002	0.039	**	0.363	0.016	ns
hi_disc lo_teams	0.084	0.033	base	0.380	0.029	base
lo_disc hi_teams	-0.076	0.054	**	0.336	0.060	ns
lo_disc lo_teams	0.010	0.057	**	0.469	0.036	**

Weighted means using seqwtnrp and 600 clusters, n=c15,000.

Source: Excel: WERS_corp_gov_correlates; sheet: work systems & aiienaton

^{**} denotes mean outside 95% conf range around base case mean (hi_discretion lo_teams) the most work system with the most numerous employees in the panel for 2004-11.

Table 4 Use of different types of work system by corporate governance mode

	Hi discretion hi teams	Hi disc lo teams	Lo disc hi teams	Lo disc Lo teams		Employees
D	in teams	10 teams	III teams	Lo teams		Employees
Private firms						
plc	31.8	9.0	44.1	15.1	100.0	3,745
privlc	25.0	24.1	32.3	18.6	100.0	4,591
Co-ownership						
partner	11.4	30.7	20.9	37.0	100.0	403
coop	6.4	23.4	67.1	3.1	100.0	655
Public purpose						
charity	31.0	50.3	14.0	4.7	100.0	965
charter	68.6	24.5	2.9	4.1	100.0	406
cogarantee	25.4	48.3	17.7	8.6	100.0	278
Public hybrid						
public_agency	25.8	51.3	18.4	4.6	100.0	295
other_pub serv	56.7	42.0	0.0	1.4	100.0	85
quango	0.0	100.0	0.0	0.0	100.0	40
Public sector						
pub_educ	13.3	63.7	12.5	10.6	100.0	1,058
pub_health	34.3	53.6	8.4	3.7	100.0	721
pub_admin	10.9	62.3	11.6	15.1	100.0	1,588
gov_owned	22.7	29.8	26.1	21.6	100.0	437
Total	25.3	31.7	28.8	14.2	100.0	15,267
	3,859	4,846	4,398	2,163	15,267	

gov_owned 22.7 29.8 26.1 21.6 100.0 437

Weighted proportions (seqwtnrp) with 600 clusters: Sheet: astatus & work system Source: Excel: WERS_corp_gov_correlates; sheet: astatus & work system

Table 5. Governance systems and employee engagement (controlling for work organisation, voice channels and individual characteristics)

Governance types	Trust		Commit		Satis		Influ		Info		Myself pay	
Private firm (plc=base)												
Privlc	-0.075	+	-0.048	-	-0.067	+	-0.111	***	-0.120	**	0.059	****
Co-ownership												
Partner	0.100	-	0.051	-	0.116	+	0.034	-	0.029	-	0.123	****
Coop/Mutual	-0.039	-	-0.112	*	-0.474	****	-0.053	-	-0.172	*	0.157	****
Public benefit												
Charity	0.098	**	0.208	****	0.112	*	0.022	-	0.028	-	-0.035	+
Charter	0.167	-	0.311	***	0.318	****	0.083	-	0.114	-	-0.041	+
Co Garantee (non profit)	0.178	**	0.326	****	0.181	****	0.118	+	0.264	**	0.102	****
Public hybrid												
Public_agency	0.063	_	-0.035	-	-0.034	-	0.008	-	0.055	_	-0.130	****
Quango	0.258	****	-0.054	-	-0.093	*	0.299	****	0.360	****	-0.162	****
Other_pub	-0.040	-	0.061	-	0.182	****	0.038	-	-0.057	-	-0.001	-
Classical public												
Pub_educ	0.372	****	0.322	****	0.270	****	0.243	****	0.211	****	-0.122	****
Pub_health	0.114	+	0.098	+	0.184	***	0.061	-	0.056	-	-0.059	+
Pub_admin	0.066	_	-0.129	*	-0.034	-	0.049	-	0.083	_	-0.117	**
Gov_owned/nationalised	-0.149	+	-0.121	+	-0.193	****	-0.017	-	-0.060	_	-0.138	****
Work organisation												
Hi_disc_hi_teams	-0.012	-	0.075	**	0.018	-	0.017	-	-0.020	-	-0.008	-
Lo_disc_hi_teams	-0.069	*	-0.078	**	-0.061	*	-0.038	-	-0.080	*	-0.064	****
Lo_disc_lo_teams	0.023	-	-0.094	***	-0.077	**	-0.017	-	-0.037	-	0.031	-

Governance types	Trust		Commit		Satis		Influ		Info		Myself pay	
Estab characteristics												
Single_estab	0.073	*	0.108	****	0.102	****	0.091	**	-0.021	-	0.102	****
No employees	0.000	-	-0.000	**	-0.000	-	0.000	-	0.000	-	-0.000	-
Voice chanels												
HR_director	0.016	-	-0.036	-	0.027	-	-0.028	-	-0.045	-	-0.031	+
Joint consultation	-0.128	****	-0.039	-	0.013	-	-0.080	*	-0.034	-	-0.085	****
Meetings -frequent	0.084	****	0.121	****	0.066	***	0.097	****	0.071	*	-0.015	-
Briefings -frequent	-0.050	+	-0.152	****	-0.080	****	0.001	-	0.001	-	0.028	+
Coll agt covers >60%	-0.132	****	-0.030	-	-0.082	***	-0.108	**	-0.141	**	-0.181	****
Shop steward	-0.054	-	-0.007	-	-0.074	*	-0.044	-	-0.043	-	-0.009	-
Can negotiate own pay	0.263	****	0.176	****	0.223	****	0.224	****	0.192	****		****
Individual chars												
Graduate	-0.023	-	-0.096	****	-0.106	****	-0.051	+	-0.100	****	0.102	****
Top_25_pay	0.096	***	0.274	****	0.267	****	0.088	**	0.146	****	0.111	****
Length of service	-0.027	****	-0.009	**	-0.006	+	-0.020	****	-0.023	****	-0.003	+
Female	0.088	***	0.138	****	0.139	****	0.147	****	0.163	****	-0.012	-
Year	0.021	****	0.030	****	0.023	****	0.015	****	0.024	****	-0.012	****
_Cons	-41.516	****	-59.397	****	-45.835	****	-30.575	****	-47.139	****	24.419	****
Number of obs	14,756		14,911		14,758		14,538		14,566		15,173	
F(30, 599)	23.94		30.66		33.91		24.26		21.51		62.08	
Prob > F	0		0		0		0		0		0	
R-squared	0.0917		0.0872		0.0819		0.0591		0.0579		0.1797	
Root MSE	0.91499		0.86841		0.89074		0.91475		0.92208		0.43894	
Clusters	600		600		600		600		600		600	

Source: Excel: WERS_corp_gov_correlates; sheet: astatus & work system

Table 6a Additional controls do not change the ranking of governance form coefficients.

Correlation coefficients between regression coefficients on governance forms in Tables 2 and 3.

Coeff in regression	Coeffic	cient in regressi	on without co	ntrols		
	trust	commitment	satisfaction	influence	information	Myself_pay
Correlation with coefficient in regressions with progressively more controls						
coeff_1: no controls as in Table 2	1.000	1.000	1.000	1.000	1.000	1.000
coeff_2: excluding HR policy controls	0.743	0.950	0.917	0.693	0.827	0.963
coeff_3: full controls as in Table 3	0.741	0.961	0.922	0.708	0.844	0.968

Source: Excel: WERS corp gov correlates: sheet astatus & work system. 2004/11. N=13 governance forms.

Table 6b Correlation between coefficients on governance for alienation/engagement variables (2004-11)

	trust_11		commi~11		satis_11		infl_11		info_11		mysel~11	
trust_04	0.7992	****										
commit_04	0.2917	-	0.4401	+								
satis_04	0.3677	-	0.4456	+	0.7311	****						
infl_04	0.8466	****	0.8004	****	0.8428	****	0.8043	****				
info_04	0.9508	****	0.7978	****	0.8396	****	0.8754	****	0.73	****		
myself_pa~04	0.4087	+	0.3283	_	0.3372	_	0.1598	_	-0.0847	_	0.8066	****

N=13 governance types

Source: Excel: WERS corp gov correlates: sheet 2004 11 compared.

Table 7. Governance forms, engagement for employees in routine occupations

	Trust		Commit		Satis		Influ		Info		Mypay	
	Coeff	Sig										
Private firm												
privlc	-0.186	****	-0.153	**	-0.230	****	-0.264	****	-0.228	****	0.048	+
Interaction	0.178	*	0.170	**	0.266	****	0.245	***	0.179	**	0.010	-
Co-ownership												
partner	-0.083	-	0.007	-	0.085	-	-0.121	-	-0.169	+	0.066	*
interaction	0.302	**	0.076	-	0.055	-	0.254	*	0.326	***	0.099	**
coop	-0.399	****	-0.540	****	-0.684	****	-0.377	****	-0.499	****	0.088	-
interaction	0.652	****	0.780	****	0.366	****	0.593	****	0.609	****	0.084	-
Public purpose												
charity	-0.045	-	0.147	**	0.052	-	-0.159	**	-0.160	**	-0.057	*
interaction	0.264	****	0.134	*	0.110	+	0.334	****	0.387	****	0.026	-
charter	0.139	-	0.334	*	0.289	*	-0.008	-	0.011	-	-0.127	*
interaction	-0.037	-	-0.019	-	0.049	-	0.110	-	0.171	+	0.163	-
cogarantee	0.061	-	0.241	****	0.109	+	0.031	-	0.194	-	0.046	-
interaction	0.178	+	0.150	+	0.086	-	0.090	-	0.101	-	0.076	+
Public hybrid												
public_agency	-0.131	-	-0.201	***	-0.115	-	-0.151	+	-0.173	-	-0.255	****
interaction	0.310	****	0.296	***	0.094	-	0.202	+	0.405	****	0.232	****
other_pub	-0.553	***	-0.236	-	0.070	-	-0.456	****	-0.430	****	-0.065	-
interaction	1.160	****	0.691	*	0.229	*	1.003	****	0.803	****	0.131	+
quango	0.312	****	-0.099	+	-0.025	-	0.181	**	0.247	****	-0.287	****
interaction	-0.654	****	-0.144	***	-0.707	****	-0.011	-	0.217	****	0.482	****
Public sector												
pub_educ	0.232	****	0.214	****	0.153	**	0.081	-	0.118	-	-0.253	****
interaction	0.241	****	0.195	****	0.204	***	0.243	**	0.153	+	0.273	****

	Trust		Commit		Satis		Influ		Info		Mypay	
pub_health	-0.083	-	-0.017	-	0.077	-	-0.114	-	-0.059	-	-0.110	*
interaction	0.370	****	0.250	****	0.187	**	0.279	**	0.204	*	0.100	*
pub_admin	-0.112	-	-0.297	****	-0.149	+	-0.162	+	-0.079	-	-0.206	****
interaction	0.322	****	0.289	***	0.188	+	0.343	****	0.300	****	0.182	****
gov_owned	-0.033	-	-0.255	**	-0.341	****	-0.034	-	-0.005	-	-0.159	*
interaction	-0.072	-	0.201	*	0.222	+	0.074	-	-0.004	-	0.062	-
Controls												
single_estab	0.086	**	0.106	****	0.102	****	0.093	***	-0.016	-	0.114	****
zallemps	-0.000	_	-0.000	**	-0.000	_	-0.000	_	0.000	_	-0.000	****
Blue collar / routine occupation	-0.331	****	-0.243	****	-0.276	****	-0.358	****	-0.311	****	-0.159	****
cb_60_plus	-0.144	****	-0.026	_	-0.081	***	-0.110	**	-0.146	**	-0.189	****
esteward	-0.014	-	0.016	_	-0.055	+	-0.009	_	-0.010	-	0.017	-
hr_director	0.017	-	-0.037	_	0.022	_	-0.031	_	-0.045	-	-0.025	-
djoint_rev	-0.143	****	-0.043	_	0.007	_	-0.090	**	-0.043	_	-0.096	****
dmeet_freq	0.069	**	0.114	****	0.059	**	0.087	****	0.064	+	-0.019	-
dbrief_freq	-0.070	**	-0.132	****	-0.072	***	-0.003	_	-0.012	_	0.006	_
graduate	-0.062	*	-0.116	****	-0.136	****	-0.089	***	-0.129	****	0.082	****
top_25_pay	0.051	_	0.258	****	0.229	****	0.039	_	0.108	**	0.083	****
myself_pay	0.250	****	0.167	****	0.214	****	0.209	****	0.178	****		
los	-0.027	****	-0.009	***	-0.006	+	-0.020	****	-0.023	****	-0.003	+
female	0.077	**	0.133	****	0.138	****	0.140	****	0.156	****	-0.014	_
year	0.018	****	0.028	****	0.021	****	0.013	****	0.021	****	-0.013	****
_cons	-36.220	****	-55.319	****	-42.557	****	-25.184	****	-42.309	****	27.511	****
N: employee observations	14,756		14,911		14,758		14,538		14,566		15,173	
R2	0.1025		0.0922		0.087		0.0692		0.0663		0.1897	
Clusters (estabs)	600		600		600		600		600		600	

Source: Excel: WERS corp gov correlates: worksheet: engagement & routine occs

Table 8. Organisational commitment: interaction of governance types and voice channels

Commitment	Collective Agt for >60%		Shop steward		Joint consultation		Can negotiate own pay	
Private firm (plc=base)								
Privlc	-0.112	*	-0.085	+	-0.036	-	-0.039	-
Interaction	0.160	+	0.127	-	-0.026	-	-0.030	-
Co-ownership								
Partner	0.002	-	0.027	-	0.070	-	-0.012	-
Interaction	0.020	-	-0.231	*	-0.242	+	0.070	-
Соор	-0.191	****	-0.144	**	-0.114	+	0.285	+
Interaction	0.148	-	-0.013	-	-0.071	-	-0.670	***
Public purpose								
Charity	0.174	****	0.237	****	0.186	****	0.193	****
Interaction	0.118	-	-0.004	-	0.077	-	0.112	-
Charter	0.005	-	-0.131	**	0.480	****	0.449	****
Interaction	0.409	**	0.534	****	-0.388	***	-0.234	***
Cogarantee	0.316	****	0.342	****	0.449	****	0.388	****
Interaction	0.009	-	-0.133	-	-0.306	**	-0.120	-
Public hybrid								
Public_agency	0.191	-	0.104	-	0.113	-	-0.014	-
Interaction	-0.186	-	-0.131	-	-0.187	+	0.052	-
Quango	0.415	****	-0.058	-	-0.045	-	0.055	-
Interaction	-0.537	****	0.091	-	0.051	-	-0.320	***
Other_pub	-0.553	****	0.364	****	0.125	-	0.091	-
Interaction	0.714	****	-0.298	+	-0.002	-	0.046	-
Public sector								
Pub_educ	0.319	****	0.362	****	0.356	****	0.391	****
Interaction	0.050	-	-0.033	_	-0.040	-	-0.163	+

Commitment	Collective Agt for >60%		Shop steward		Joint consultation		Can negotiate own pay	
Pub_health	-0.136	*	-0.015	-	0.012	-	0.156	***
Interaction	0.351	****	0.216	*	0.187	*	-0.082	-
Pub_admin	-0.363	****	-0.074	-	-0.158	+	-0.062	-
Interaction	0.281	**	-0.053	-	0.057	-	-0.253	*
Gov_owned	0.139	**	-0.286	**	-0.142	+	-0.102	-
Interaction	-0.240	***	0.265	*	0.042	-	-0.013	-
Controls								
Single_estab	0.108	****	0.109	****	0.109	****	0.097	****
Zallemps	-0.000	**	-0.000	**	-0.000	*	-0.000	*
Cb_60_plus	-0.111	+	-0.033	-	-0.016	-	-0.025	-
Esteward	0.004	-	-0.033	-	-0.019	-	0.004	-
Hr_director	-0.042	-	-0.035	-	-0.036	-	-0.041	-
Djoint_rev	-0.045	+	-0.036	-	-0.020	-	-0.033	-
Dmeet_freq	0.122	****	0.125	****	0.128	****	0.117	****
Dbrief_freq	-0.132	****	-0.122	****	-0.137	****	-0.115	****
Graduate	-0.090	***	-0.092	***	-0.091	***	-0.092	***
Top_25_pay	0.282	****	0.280	****	0.280	****	0.279	****
Myself_pay	0.178	****	0.182	****	0.174	****	0.254	****
Los	-0.009	**	-0.009	**	-0.009	**	-0.010	**
Female	0.136	****	0.140	****	0.135	****	0.141	****
Year	0.029	****	0.031	****	0.029779	****	0.029	****
_Cons	-58.111	****	-61.547	****	-60	****	-58.565	****
Number of obs	14911		14911		14911		14911	
R-squared	0.0849		0.0849		0.0853		0.0893	
Clusters	600	1.60 1	600		600		600	

Source: Excel: WERS corp gov correlates: worksheet: astatus X cb60, stewd mypay

Table 9 Impact of financial crisis adjustment on employee engagement: employees hired before and after crisis (2011 data)

Mean values of the engagement variables.

	trust	commit	satis	influe~e	info	My pay
Pre-crisis hires						
No pay_job cuts	-0.000	0.127	0.108	0.034	0.066	0.322
Pay cuts only	0.045	0.107	0.053	0.028	0.065	0.311
Job cuts only	-0.091	-0.002	0.010	-0.112	-0.058	0.299
Pay & job cuts	-0.159	-0.019	-0.069	-0.161	-0.088	0.281
Total	-0.044	0.064	0.032	-0.041	0.006	0.305
Post-crisis hires						
pay_job_cuts	trust	commit	satis	influenc	info	My pay
No pay_job cuts	0.367	0.225	0.169	0.351	0.283	0.404
Pay cuts only	0.414	0.245	0.091	0.311	0.318	0.341
Job cuts only	0.257	0.171	0.105	0.235	0.271	0.401
Pay & job cuts	0.230	0.126	0.011	0.157	0.233	0.307
Total	0.333	0.199	0.104	0.282	0.278	0.365

Comparing current employees with >3 and <=3 years' service in 2011.

by los_short, sort: tabstat trust commitment satisfaction information influence myself_pay, statistics(mean) by(pay_job_cuts)

Source: Excel: WERS corp gov correlates: worksheet: External shock tabstat

Table 10 Compensating differentials: correlation Mincer pay residuals with engagement

	Estab residual	Individ residual	trust	commit	satis	influenc e	info	My pay
Establishment pay residual	1.000							
Individual pay residual	0.987	1.000						
	0.000							
trust	-0.654	-0.674	1.000					
	0.011	0.008						
commitment	-0.525	-0.562	0.720	1.000				
	0.054	0.037	0.004					
satisfaction	-0.506	-0.536	0.638	0.911	1.000			
	0.065	0.048	0.014	0.000				
influence	-0.686	-0.687	0.922	0.588	0.517	1.000		
	0.007	0.007	0.000	0.027	0.059			
information	-0.538	-0.550	0.853	0.607	0.566	0.871	1.000	
	0.047	0.042	0.000	0.021	0.035	0.000		
myself_pay	-0.191	-0.195	0.588	0.306	0.228	0.435	0.271	
	0.513	0.504	0.027	0.287	0.434	0.120	0.349	1.000

Obs=14, significance levels shown in italics.

Source: Excel: WERS corp gov correlates: worksheet: means los_sby astatus

11 Appendix 1: Organisational governance: Notes on legal requirements

a) For profit organisations

In its guidance on company formation, the BERR identifies the following types of companies:

Company formation, GBF1, BERR Department for Business Enterprise & Regulatory Reform, 2009

http://www.companieshouse.gov.uk/about/pdf/gbf1.pdf

Public limited company plc

Public limited company – this type of company has a share capital and, the liability of each member is limited to the amount unpaid on shares that a member holds. A public limited company may offer its shares for sale to the general public and may also be quoted on the stock exchange.

A public company has access to capital markets and can offer its shares for sale to the public (usually, although not exclusively), through a recognised <u>stock exchange</u>. It can also issue advertisements offering any of its securities for sale to the public. In contrast, a private company with a share capital cannot offer its shares to the public.

Private company limited

Private company limited by shares – this type of company has a share capital and the liability of each member is limited to the amount unpaid on shares that a member holds. A private company cannot offer its shares for sale to the general public. A private limited company is

- is legally separate from the people who run it
- has separate finances from the owner's personal ones
- owners keep any profits it makes after paying tax

b) Co-ownership

The partnership/self-proprietorship

Under UK law, in a partnership, the partners personally share responsibility for the business. This includes: any losses it makes; business expenses such as stock or equipment, and partners share the business's profits, each partner paying tax on their share.

Self-proprietors, or sole traders, run their own business as an individual and are self-employed. They can keep all the business's profits after tax. They are personally responsible for any losses your business makes. They must also follow certain rules on running and naming their business.

https://www.gov.uk/set-up-business-partnership

Co-operative / Mutual / Friendly society

In its guidance on co-operative and mutual benefit societies, the Financial Conduct Authority, states that the object of a 'cooperative society' does not include making profits mainly for distribution to investors or interest payments to lenders. Although current legislation (Co-operative and Community Benefit Societies Act 2014) does not define the objectives of cooperative societies, the Financial Conduct Authority states: 'We generally consider something to be a bona fide co-operative society where it is an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically controlled enterprise' and notes that this follows the ILO definition of cooperatives. (ILO R193). Under UK legislation, cooperatives cover a wide range of activities ranging from worker cooperatives to the Coop Group which runs one of the largest supermarket chains.

The FCA (2015) also distinguishes cooperatives from other types of community benefit society, which unlike a co-operative society, should not exist to provide benefits contingent upon membership.

Guidance on the FCA's registration function under the Co-operative and Community Benefit Societies Act 2014, Financial Conduct Authority, London.

November 2015

https://www.fca.org.uk/publication/finalised-guidance/fg15-12.pdf

http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_code: R193

Mutual benefit societies include the following as mutual benefit societies: credit unions, building societies and friendly societies (Financial Conduct Authority). Friendly societies are registered under either the Friendly Societies Act 1974 or the Friendly Societies Act 1992. Illustrations include friendly societies, working men's clubs, and benevolent societies. The activities of these societies varies, but includes, running a social club, providing discretionary benefits to members – for instance during sickness or unemployment, running sports clubs, and insuring cattle.

https://www.fca.org.uk/firms/friendly-societies-introduction

c) Public benefit organisations

Charity

According to the Charities Commission, a charity must have 'charitable purposes' that help the public (known as being 'for public benefit'). Among the examples given are relieving poverty, education, religion, health, saving lives, citizenship or community development, the arts and amateur sport. The Charities Act defines the 'public benefit requirement'. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/637648/CC4.pdf

Body established by Royal Charter

Royal Charters are granted to organisations by Petition to The Sovereign in Council. Charters are granted rarely these days, and a body applying for a Charter would normally be expected to meet a number of criteria. Historically, the grant of a Charter of Incorporation was the

principal method of creating separate legal personalities, for example for universities, colleges, schools, municipalities, guilds and livery companies, a wide range of benevolent institutions. With the advent of charities legislation, the occasion for incorporation by the grant of a Charter became much reduced, and since the 1950s the primary criterion has been to advance the public interest. Current criteria include that the institution applying should comprise members of a unique profession, and should have as members most of the eligible field for membership, without significant overlap with other bodies.

https://privycouncil.independent.gov.uk/royal-charters/chartered-bodies/

Company limited by guarantee

In private companies limited by guarantee, members do not make any contribution to the capital during its lifetime as they do not purchase shares. Their liability is limited to the amount that they each agree to contribute to the company's assets if it is wound up. This form is commonly used for clubs, charities, non-profits, NGOs etc. and gives the organisation a legal status. The company does not distribute profits.

d) Hybrid-public sector

Classification of organisations in the hybrid public sector has been a matter of political and administrative debate. In 2014, the Cabinet Office reviewed the classification of 'Public Bodies', which include all the hybrid forms listed in the WERS management questionnaire (Cabinet Office, 2014). The number and diversity of public bodies had grown considerably over previous decades, and Conservative-Liberal Democrat Coalition government prioritised putting order into the sector to improve transparency and value for money. The Cabinet Office review defined public bodies as entities that play a role within the processes of government, but are not ministerial departments, and which accordingly operate to a lesser or greater extent at arm's length from the government. There are many different types of public body, performing many different functions, but it is the differences in their form that impacts on the way they are classified (Cabinet Office 2014 §28).

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/371650/Classification_Review_Discussion_Paper.pdf

Cabinet Office (2014) Review of the Administrative Classification of Public Bodies within the United Kingdom. Discussion Paper. 6 November 2014.

e) Public sector

The definition of public sector organisations follows that used in national accounts and includes state education, health care, and public administration organisations. It also includes the few remaining nationalised industries, government-owned limited companies, and trading public corporations.

12 References (to follow)

Akerlof, George Antunes (2010) Aoki (2010) Barnard, Chester Bartling, Fehr and Schmidt (2013) Betters (1931) Blauner, Robert Cartter, 1959

Dixit

Doucouliagos, Freeman, and Laroche, 2017

Friedmann, Georges

Gibbons and Henderson (2012)

Hackman and Oldham

Heckscher, 2007).

Holm et al (2010)

Hood et al (2010)

Koumenta, Maria

Lorenz and Valeyre (2005)

Maller, Serge

Meyer and Allen (1997)

Mincer, Jacob

Morck et al (2005)

Oswald (1985)

Prowse (1994)

Quinn (1996)

Rousseau, 1995

Simon, Herbert (1951)

Tirole, Jean

Tolbert, Pamela and Zucker, Lyn

Touraine, Alain

US Task Force

Walton (1985)