EXPLORING HUMAN RESOURCE INCENTIVISATION FOR PUBLIC SECTOR CONSTRUCTION PROJECT DELIVERY IN SCOTLAND

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The construction industry is largely accepted to be significantly human resource dependent. This assertion justifies the importance attached to the motivational wellbeing of human resources. This importance is evidenced in the engagement of human resources, for the achievement of project goals, with incentives and rewards. These arguments emphasise the influence held within human behaviours towards either successful delivery or failure of construction projects. This research aims to critically evaluate the types and prevalence of incentive schemes implemented towards the successful delivery of public sector construction projects. This research seeks to answer the question: how do workforce incentive schemes operate when administered to aid construction project delivery? A critical literature review provided 5 categories of incentives; financial, non-financial, intrinsic, extrinsic and disincentives. This review justified the need for further understanding on human resource incentivisation. This revelation aided the adoption of a qualitative phenomenological approach to analyse the experiences of 9 purposive sampled professionals in public construction projects in Scotland. The thematic analysis generated 4 initial themes, namely; incentives as corruption, financial dominance, the need to move beyond financial incentives and management hierarchical tensions. This research recognises the need for approaches drawn from experiential attributes of engaged human resources within construction projects.

Keywords: human resource management, incentives, motivation, public sector, reward

INTRODUCTION

The construction industry is largely considered to be significantly human resource dependent (Grebler and Burns 1982). This understanding reinforces the need for a deliberate consideration of the human resource in management, practice and research. This consideration recognises the need to sustain the productivity of human resources within construction projects. The motivation of human resources is argued to be a defining element in the productivity and performance of construction projects (Oyedele 2013). These narratives provide the justification for the importance of incentives as an active motivational tool in the incentivisation process and successful delivery of construction projects.

This paper presents a selection of knowledge, derived from practice and research, on human resource management, motivation, incentivisation and evaluation and how

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these elements contribute to the achievement of successful project delivery in public sector construction projects in Scotland. Key to this is the sourcing, collection and analyses of individual experience on human resource incentivisation in public sector construction projects in Scotland. The Scottish government, like the UK government, places the construction of infrastructure such as roads, schools, hospitals, houses and so on as an integral component in achieving her socio-economic goals. This significance provides an abundance of construction projects being executed and the opportunity for research is encouraged. This research therefore aims to critically evaluate the types and prevalence of incentive schemes implemented towards the successful delivery of public sector construction projects. Achieving this aim is based on answering the question, how do workforce incentive schemes operate when administered to aid construction project delivery? While numerous literature on human resource incentives exist, the need to contribute to the understanding and knowledge on this subject based on real life individual experience is considerable.

Incentives

The diversity evident in construction projects echoes into the understanding of human resource incentives. Banfield and Kay (2008) defined incentives as the promise and prospect of reward(s) upon the achievement of an agreed outcome. From a financial standpoint, incentives are financial payments received by an employee upon the achievement of previously set goals (Armstrong 2002). The motivational viewpoint defines incentives as the outcomes of the motivational process where the need to achieve specific goals sets up drives intended at motivating the human resource to perform at their highest possible level (Luthans 2005). These definitions provide the criteria for an ideal incentive; specific goals or targets, performance measurement framework, incentive item (financial or otherwise) and the subject of incentives (the human resource).

The incentivisation process requires the implementation of incentives in the form of incentive schemes. The definitions for incentives schemes are a reflection of the understanding of incentives, however for the purpose of this research, these definitions present partial understanding. With individuality highlighted, this research adopts Oyedele's (2013) definition of incentive schemes; a programme that initiates the interaction of social currencies between human resources and the organisations for which they work. This research argues that this singular origin of a social interaction between these parties may manifest in varying forms such as financial, non-financial, rewards, penalties, internal and/or external interpretations. According to Maycock (2009), an incentivised workforce would use performance as a bargaining tool for the highest possible benefit in return. The incentive scheme implemented is the product exchanged for the achievement of the organisational goal thereby satisfying both the sponsor of the incentive and the beneficiary. Although this research seeks to emphasise a social viewpoint of incentives, the literature review presents the classification of incentives into five main classes, namely; intrinsic, extrinsic, financial, non-financial and disincentive.

Intrinsic incentives

The word 'intrinsic' connotes an inward and naturally occurring origin. This form of incentive is a response to internal behavioural traits exhibited by an employee towards the activity to be performed. These incentives are self-generated and do not require the aid of external factors (Armstrong 2009). Fryer *et al.*, (2004), in agreement, stressed that the motivation and incentivisation required for the achievement of any project goal can be derived without the influence of external incentives, for no reason other than the pleasure and pride derived from executing the specific tasks and achieving the required goals. Binderman *et al.*, (2000) further stressed that naturally occurring intrinsic reward and incentivisation should be encouraged to thrive within employees and organisations. Intrinsically induced rewards, which are generally

ignored, are argued to act as compensation for poor salaries and job insecurity largely prevalent in the construction industry (Caven and Diop 2012).

Despite the advantages argued in favour of intrinsic incentives, the presented definitions of incentives negate the ideology behind any intrinsic form of incentives. The definitions of incentives connote external influence in the motivational process and any internally originating behaviour would be either a conscious or unconscious response to an external experience. Internal incentives may retrospectively be referred to as external efforts by an incentive sponsor towards an incentive respondent aimed at inciting intrinsically influenced behaviours. This is evident in Armstrong's (2013) assertion; "self-motivated behaviours occur when people take control of situations or relationships, direct the course of events, create and seize opportunities, enjoy challenges, react swiftly and positively to new circumstances and relationships and generally make things happen". These question the legitimacy behind the reality of intrinsically generated behaviours and incentives.

Extrinsic Incentives

Unlike intrinsic incentives, extrinsic incentives connote external origin, influence and occurrence. According to Adedokun *et al.*, (2013), these incentives are generated exclusively from the context of the job and largely exist in monetary and material substances. Extrinsic incentives are largely experienced as financial rewards or remunerations, developmental rewards such as learning, training and development, and career progression, and/or social rewards such as performance support, work group affinity, work-life balance and other non-financial benefits. According to Armstrong (2013), although extrinsic incentives seem to provide immediate responses from incentive recipients, these responses may not be long-term. Similarly, Maycock (2009) argued that extrinsic incentives may negatively impact organisational behaviour by preventing the stimulation of intrinsically generated attributes.

Financial Incentives

These are incentives in the form of monetary items such as wages, allowances, financial bonuses and so on (Rose and Manley 2011; Adedokun *et al.*, 2013). These incentives are administered in schemes where monetary items are used to reward or penalise individual, team and organisational performance (Chartered Institute of Personnel Development 2014). Regardless of the significant financial attribution to incentives in construction literature and practice, it is argued that these incentives are not the most effective form of incentivisation because they do not inspire recipients to go the extra mile in meeting agreed goals (Armstrong 2013). On a similar note, Maycock (2009) argued that financial incentives have led to a change in occupational psychology from relational to transactional. Binderman *et al.*, (2000) further stated that financial incentives have frequently left unfavourable effects on organisational performance. These arguments suggest a move towards non-financial incentives.

Non-Financial Incentives

In direct contrast to financial incentives, these incentives are not generated from monetary items but are derived from programmes such as training and development, flexible work hours, employee engagement and participation and so on (Adedokun *et al.*, 2013). According to the Chartered Institute of Personnel Development (2014), this form of incentives is disadvantaged by low level of interest and awareness from the human resource towards it. It is however important to stress the various arguments in favour of this form of human resource incentive. Adedokun *et al.*,

(2013) argued that non-financial incentives have greater impact with recipients due to the memorable and exciting experience recorded. Similarly, Bokhour *et al.*, (2006) advocated the adoption of non-financial incentives such as performance monitoring and feedback, system changes and staffing decisions. Furthermore, Banfield and Kay (2008) stressed the need to limit the dependence on financial incentives in favour of an increased emphasis on non-financial items such as work environment, quality of life, flexible working conditions, opportunities for advancement and recognition.

Disincentives

These forms of incentives are derived from penalties, punishments and deterrents. According to Armstrong (2009), disciplinary actions such as withholding pay and criticism are motivational tools that aid human resource performance and eventual project delivery. Meng and Gallagher (2012) stressed the importance to provide a clear demarcation between incentives and disincentives however this does not exclude the possibility of a fusion of these two into an incentivisation programme. This amalgamation provides the likely benefits of identifying and establishing common goals, enhancing healthy collaboration and relationships, and so on (Bower *et al.*, 2002). The reviewed literature provides conflicting preferences for incentives and disincentives. Bower *et al.*, (2002) argued that regardless of the success record of disincentives should be given more preference. Contrarily, Bubshait (2003) argued that construction clients have a preference for administering disincentives on defaulting contractors rather than incentives on performing contractors.

RESEARCH APPROACH

This research adopts an interpretivist paradigm which emphasises the viewpoints of the world, truth and reality from the social constructions and interpretations of individuals with personal experience of a particular phenomenon (Fellows and Liu 2008; Silverman 2011; Creswell 2014). The adoption of this paradigm also provides a remedy and substitute to the saturation of positivist and quantitative positions in construction research (Khan 2014; Shipton *et al.*, 2014). The saturation of positivist and quantitative viewpoints has largely resulted in an insufficient understanding of the phenomenon of human resource incentivisation; a problem that a qualitative approach sets out to abate (Conklin 2007; Creswell and Clark 2011; Punch 2014). As a form of qualitative approach, this research adopts a phenomenological research design to answer the research questions and achieve the research aim. Furthermore, Silverman (1980) and Gill (2014) affirm that phenomenology seeks to explore, examine and generate an understanding of human experiences on a particular phenomenon.

Data Collection

This research purposively sampled respondents by ensuring that only individuals with experience in human resource incentivisation and project delivery in public sector construction projects in Scotland were engaged as research respondents (Fellows and Liu 2008; Khan 2014). Table 1 provides anonymised details of the research respondents and their roles in the Scottish public construction projects. Individual responses were collected via audio-taped one-on-one semi-structured interviews averaging one hour each based on an interview protocol derived from the reviewed literature, resulting themes and research gaps, while ensuring ethical responsibilities of securing informed consents and assuring research participants of anonymity, privacy and confidentiality (Moustakas 1994; Brinkmann 2008; Preissle 2008). The

interview protocol had five sections: section one covered demographic and career details, section two covered general questions on incentives, section three covered questions on incentives in public construction projects, section four covered questions on incentives in project phases and section five explored the individual experiences of the respondents; all sections featured probing questions.

Table 1: Respondents details and roles

Name	Occupational Role	Employer	Years of Experience
Kennedy	Construction Manager	Public/Private Initiative	13-18 Years
Gabriel	Construction Manager	Private Organisation	19-24 Years
Mark	Construction Manager	Local Council	30 Years and above
Vince	Construction and Project Manager	Local Council	30 Years and above
Clarkson	Development Manager	Local Council	0-2 Years
Sasha	Project Consultant	Private Organisation	8-12 Years
Simon	Project Manager	Private Organisation	8-12 Years
Hammond	Client, Project Manager	Local Council	25-30 Years
John	Project Director	Private Organisation	30 Years and above

RESEARCH FINDINGS

The collected data were transcribed into Microsoft Word and imported into Nvivo10 software to aid the analyses. The findings were coded based on the nodes generated using this software. The findings presented in this paper highlight some of the major themes that summarise the presented experiences of the research respondents.

The interpretation of incentives as corruption

Preliminary findings during the early stages of data collection revealed a defensive stance expressed by potential research participants on the subject of incentives. This personal experience brought enlightenment on the negativity around human resource incentives. The following excerpts provide participant responses to emphasise this theme;

...when you say the word, it is bribes that comes to mind... [Sasha].

This response may not reveal the factors behind this interpretation, however other responses reveal that with the level of focus on the public sector, public opinions eventually affect individual responses towards public sector programmes such as construction projects. This argument is reinforced in the excerpts below;

...when people say incentives, they can start thinking of the all brown envelope under the table and things like that. [Hammond].

This interpretation is strengthened by the secretive disposition expressed by some parties within construction projects, Hammond further explains;

...there's a bit defensiveness because it comes down to the contract you actually use on site as well...if you're in a contract where you simply employ a builder to come in and build your building for a fixed price, it's up to him and behind his closed doors how much he spends to build that project. You're gonna pay him x amount, he can either spend x or he can spend less than x and if he spends less than x he makes profit. And...they're very nervous about declaring exactly how much money they're making off it...from that point of view...they'll keep that close to their chest... no one likes to talk about money obviously ...it's just one of these things the contractor will keep quiet about how much they're making.

These interpretations to the word 'incentive' exist in direct contrast to the reviewed literature. This provides room for further research in understanding the reasons and processes behind these interpretations.

The dominance of financial and monetary incentives

The following excerpts from research respondents reveal the significant financial understanding behind the experience of human resource incentives in public sector construction projects.

...when people say incentive schemes, I will automatically think of money...a lot of people are driven by the financial aspect... [Clarkson].

About incentives, what comes to my mind is money. For private companies, it is about making money... [Gabriel].

...money is the driving force ... [Simon].

The narration provided by Gabriel reveals the possibility of a conflict of interests where contractors are employed to execute and deliver public construction projects with private sector financial ideologies that may conflict with public sector organisational practices.

Further excerpts attempt to provide a rationale for these conclusions;

...the reason you go to work is money. People always wanna get money. [Simon].

The financial cuts have affected the human resources in public sector organisations as there are now little opportunities for employees in public sector organisations so there is a significant migration to private sector construction organisations [Gabriel].

These responses present money as a significant factor in individual socio-economic well-being and the relationships between the public and private organisations in the construction industry.

The need to move beyond financial incentives

The accessed literature and interview responses provide an identity of public construction projects or the construction industry at large saturated with various financial indicators. Within this climate, the call for a re-orientation away from financial incentives is significant.

Community benefits should be encouraged... Employability is a key community benefit... Individuals on site are financially driven but other non-financial incentives that improve happiness, passion and drive should be emphasised. [Gabriel].

Further excerpts attempt to provide an origin for the responses of individuals towards financial incentives and rewards;

...as a Christian the bible says...money is the root of all evil...when you tend to go after money, you will lose the purpose of your job...if everybody is depending on incentives to work, that means nobody is gonna work. [Simon].

The above excerpts affirm the impact external factors have on the interpretations of individuals towards incentives and other management tools implemented to achieve organisational and project goals. The role of spirituality in the eventual success or failure of any incentive is evident in this response therefore stressing the need to identify possible factors such as these and manage them to aid project delivery.

Management hierarchy tensions

The literature review presents the distribution of incentives and rewards across the hierarchy within construction organisations and projects. This phenomenon is

identified and interpreted by the research respondents in a manner that stresses that the environment and framework within which human resource incentives are implemented is crucial in the delivery of public construction projects.

...when I joined the organisation I'm with now, I found it very unusual that there wasn't ...any kind of structure in place for salaries, bonuses, anything at all...they could pay me a salary and tell me that it was expected of me but I think it's to do with the nonconfrontational management style over the years that it's become traditional in our organisation...if you're not gonna incentivise somebody, you have to cause otherwise they're going home at five o'clock. They've got no incentive to give you extra...if you don't know when you're getting promoted, if you don't know when you're getting a share scheme, if you don't know when you're getting a bonus, if you don't know when you're getting your next raise, you're going home at five o'clock. [Sasha].

While human resource planning, transparency and communication is not emphasised in the literature on workforce incentivisation, this response indicates the importance of the workforce feeling well informed on details of milestones for salary payments, salary increases, rewards and bonuses, promotions and other incentivisation plans.

DISCUSSION

The subject of managing the human resource with motivational tools has for years been tried and tested with varying responses from recipients of these tools. The encounter of the research respondents with financial incentives and rewards, either personally or observational, is a direct reflection of the contents of the literature reviewed. Despite the negative consequences attributed to the application of financial or monetary items as motivational incentives (Binderman *et al.*, 2000; Maycock 2009; Armstrong 2013), the continuous implementation of financial incentives and rewards is evident. The adoption of a qualitative phenomenological approach confirms the findings of the largely quantitative research on this subject, however, while most literature advocate for incentives to be objective, measurable, rigid, cost and time oriented and contractual (Bower *et al.*, 2002; Rose and Manley 2011), this research argues for a more flexible and psychological oriented approach as proffered by Bokhour *et al.*, (2006); Banfield and Kay (2008) and Adedokun *et al.*, (2013).

The responses provided also emphasise the impact of the external world on the project environment. This research recognises and emphasises the need to identify the idiosyncratic attributes that individuals bring into the project environment and how these attributes react to both mutual and contradictory positions. The construction workforce is largely presented with predefined policies and processes and do not seem to enjoy an avenue to infuse personal interests into their occupational tasks; further research on this may be necessary to provide a balanced compromise.

While the collected data support a move away from financial incentives and rewards, just as some literature, to other forms of incentivisation such as community benefits, employability and passion for the profession, this situation may not be unconnected to the experience of corruption in general and an absence of transparency from private contractors. This research presents monetary or financial items as a catalyst to the perception of corruption in the incentivisation of the construction human resource. The construction industry in the United Kingdom, characterised by the harmful use of contractors and subcontractors, contract lobbying, cover pricing and the absence of transparency in the tendering process, is considered vulnerable to corrupt practices (Arewa and Farrell 2015) and this situation may be a significant contributor to these experiences of corruption in public construction projects. These arguments provide

room for further research into the validity of these perceptions as corruption and the factors surrounding these interpretations.

While most organisations constantly battle to abate the occurrence and effect of tensions within, the tag of 'public project' and the need for top level individuals to recognise and act on the concerns of tax payers may incite tensions that directly or indirectly impact on the incentivisation experience. This research confirms the absence of an effective plan and structure to incentivise the human resource. The importance of an incentive plan is shared by Bokhour *et al.*, (2006); Sparer and Dennerlein (2013) and Mir and Pinnington (2014), who argued for the consideration of the following in this regard: clear definition of targets and goals, performance evaluation, distribution of incentives, the attainability, fairness and competitiveness of the goals, options of incentives and the reactions and attitudes of the human resource towards these incentives. This research recognises these needs and recommends a stronger consideration of these elements in human resource incentivisation not just within public sector projects but across the construction industry.

CONCLUSIONS

The subject of human resource incentives as a human resource management tool has been debated for many years, however, the literature reviewed indicated the circulation of dated knowledge largely based on financial interpretations and rewards. This argument fostered the need for the acquisition and contribution of novel understanding about this phenomenon. While some elements of the literature reviewed were echoed in the data collected, the prospect of contributing to a new path of knowledge and practice is highlighted.

This argument for a novel approach to human resource incentivisation required adopting an unusual path of qualitative phenomenology which emphasised that the experiences of human resources in public sector construction projects are sought, collected and analysed to present the meanings generated from individual experiences. While the process of seeking appropriate respondents and getting relevant accounts with regards to the research subject presented significant levels of challenges either due to the negative interpretation of incentives or the ironic secrecy attached to public sector affairs, the accessed respondents provided an extensive account of experiences. These accounts led to findings on the perception of incentives as corruption, the unsurprising dominance of financial human resource incentives and rewards, the call for a move away from financial incentives and rewards, the need to utilise intrinsic and non-financial incentives, the importance of timely and accurate communication within construction organisations and projects on incentive items and implementation, and the likely tensions between employers and employees on the management approach to employee incentivisation, well-being, motivation and evaluation.

REFERENCES

- Adedokun, O A, Ibironke, O T and Olanipekun, A O (2013) Vulnerability of motivation schemes in enhancing site workers productivity for construction industry's sustainability in Nigeria. *International Journal of Sustainable Construction Engineering and Technology*, **4**(1), 21-30.
- Al-Tmeemy, S M H M, Abdul-Rahman, H and Harun, Z (2011) Future criteria for success of building projects in Malaysia. *International Journal of Project Management*, 29(3), 337-348.

- Arewa, A O and Farrell, P (2015) The culture of construction organisations: The epitome of institutionalised corruption. *Construction Economics and Building*, **15**(3), 59-71.
- Armstrong, M (2002) *Employee Reward 3rd Edition*. London: Chartered Institute of Personnel and Development.
- Armstrong, M (2009) Armstrong's Handbook of Human Resource Management Practice 11th Edition. London: Kogan Page.
- Armstrong, M (2013) How to Manage People 2nd Edition. London: Kogan Page.
- Banfield, P and Kay, R (2008) *Introduction to Human Resources Management*. New York: Oxford University Press.
- Binderman, J, Kilo, C M and Oldham, J (2000) Rethinking incentives. *Journal of Medical Practice Management*, **16**(2), 70-74.
- Bokhour, B G, Burgess Jr, J F, Hook, J M, White, B, Berlowitz, D, Guldin, M R, Meterko, M and Young, G J (2006) Incentive implementation in physician practices: A qualitative study of practice executive perspectives on pay for performance. *Medical Care Research and Review*, **63**(1), 73S-95S.
- Bower, D, Ashby, G, Gerald, K, and Smyk, W (2002) Incentive mechanisms for project success. *Journal of Management in Engineering*, **18**(1), 37-43.
- Brinkmann, S (2008) Interviewing. In: L Given (Ed.) The Sage Encyclopaedia of Qualitative Research Methods. California: Sage Publications, 471-473.
- Bryman, A (2012) Social Research Methods 4th Edition. Oxford: Oxford University Press.
- Bubshait, A A (2003) Incentive/disincentive contracts and its effect on industrial projects. International Journal of Project Management, **21**(1), 63-70.
- Chan, A P C and Chan, A P L (2004) Key performance indicators for measuring construction success. *Benchmarking: An International Journal*, **11**(2), 203-221.
- Chan, A P C, Scott, D and Chan, A P L (2004) Factors affecting the success of a construction project. *Journal of Construction Engineering and Management*, **130**(1), 153-155.
- Chartered Institute of Personnel Development (2014) Bonuses and Incentives. Available from http://www.cipd.co.uk/hr-resources/factsheets/bonuses-incentives.aspx [Accessed 28th May 2014]
- Conklin, T A (2007) Method or madness: Phenomenology as knowledge creator. *Journal of Management Inquiry*, **16**(3), 275-287.
- Creswell, J W and Clark, V L P (2011) *Designing and Conducting Mixed Methods Research* 2nd Edition. California: Sage Publications.
- Creswell, J W (2014) *Research Design: Qualitative, Quantitative and Mixed Methods Approaches 4th Edition.* London: Sage Publications.
- De Wit, A (1988) Measurement of project success. *International Journal of Project Management*, **6**(3), 164-170.
- Fellows, R and Liu, A (2008) *Research Methods for Construction 3rd Edition*. Oxford: Blackwell Publishing.
- Fryer, B, Egbu, C, Ellis, R and Gorse, C (2004) *The Practice of Construction Management* 4th Edition. Oxford: Blackwell Publishing.
- Gill, M J (2014) The possibilities of phenomenology for organisational research. *Organisational Research Methods*, **17**(2), 118-137.
- Grebler, L and Burns, L S (1982) Construction cycles in the United States since World War II. *Real Estate Economics*, **10**(2), 123-151.

- Khan, S N (2014) Qualitative research method: Phenomenology. *Asian Social Science*, **10**(21), 298-310.
- Luthans, F (2005) *Organisational Behaviour 10th Edition*. Singapore: The McGraw-Hill Companies.
- Maycock, E A (2009) An Investigation into Performance Based Pay in Nigerian Financial Institutions, Unpublished PhD Thesis, University of Bedfordshire.
- Meng, X and Gallagher, B (2012) The impact of incentive mechanisms on project performance. *International Journal of Project Management*, **30**(3), 352-362.
- Mir, F A and Pinnington, A H (2014) Exploring the value of project management: Linking project management performance and project success. *International Journal of Project Management*, **32**(2), 202-217.
- Moustakas, C (1994) *Phenomenological Research Methods*. California, CA: Sage Publications.
- Oyedele, L O (2013) Analysis of architects' motivating factors in design firms international. *Journal of Project Management*, **31**(3), 342-354.
- Preissle, J (2008) Ethics. In: L Given (Ed.) The SAGE encyclopaedia of qualitative research methods. California: SAGE Publications, 274-278.
- Rose, T and Manley, K (2011) Motivation towards financial incentive goals on construction projects. *Journal of Business Research*, **64**(7), 765-773.
- Serrador, P and Turner, J R (2014) The relationship between project success and project efficiency. *Procedia-Social and Behaviour Sciences*, **119**, 75-84.
- Shipton, C, Hughes, W and Tutt, D (2014) Change management in practice: An ethnographic study of changes to contract requirements on a hospital project. *Construction Management and Economics.* **32**(7-8), 787-803.
- Silverman, D (2011) Interpreting Qualitative Data 4th Edition. London: SAGE Publications
- Silverman, H J (1980) Phenomenology. Social Research, 47(4), 704-720.
- Sparer, E H and Dennerlein, J T (2013) Determining safety inspection thresholds for employee incentives programs on construction sites. *Safety Science*, **51**(1), 77-84.