

Institution: University College London
Unit of Assessment: 16 – Architecture, Built Environment and Planning
Title of case study: <i>Providing vital commentary to practitioners and policymakers on the rise and implications of PFI and PPP</i>
1. Summary of the impact <p>Research at UCL by Edkins, Ive et al, commencing in 1996, into the Private Finance Initiative (PFI) and Public Private Partnership (PPP) has resulted in an independent and objective commentary on the use and practicalities of this procurement framework. It has also led to the development of training courses and reusable training materials for practitioners and the development of advocacy networks to influence policy-makers and wider discourse about PFI in the UK, New Zealand and beyond. As a result, UCL research has improved PFI/PPP guidance and training, and enhanced practitioners' abilities to deliver PFI projects, whilst analysis of project operations has informed the development of PFI as a continuing form of government procurement.</p>
2. Underpinning research <p>From the launch of the Private Finance Initiative (PFI) in 1992 as a form of Public-Private Partnership (PPP), its application as a procurement framework has had major consequences. The primary insight from the body of UCL research work relates to the potential for, and need to, consider the financing the full project life-cycle – i.e. from project creation to sustained operational use through the contractual integration of the design, build, operation and financing of the facility.</p> <p>In 1994 Graham Ive, Senior Lecturer in the School of Construction and Project Management (BSC&PM) at the UCL Bartlett Faculty of the Built Environment, was appointed to the Construction Industry Council (CIC) Procurement Advisory Panel. From accessing this network of experts a competitive grant was won under the <i>Partners in Technology</i> programme, funded by the then Department for Environment, Transport and the Regions (DETR). The research project's objective was to investigate PFI in terms of its process and implications from the perspective of the community of small and medium sized enterprises (SMEs) that comprise a large proportion of the UK construction sector. This initial project was conducted by Graham Ive and Dr Andrew Edkins (then Senior Research Fellow, now Senior Lecturer) between 1996 and 1997. The research involved a clear articulation of the drivers of PFI and the processes it involves, gathered from leading practitioners in the early use of PFI and its forerunners. In 1998, this led to the publication of an important book which independently and objectively described PFI, and what it consisted, of to a construction industry audience for the first time [a].</p> <p>A second competitive grant for <i>Partners in Innovation</i>, also funded by DETR, was awarded in 1998 to investigate the implications of the use of PFI on cost saving and innovation. Ive and Edkins led this project, with Germán Milan as Research Fellow. This research concluded that there was no overwhelming evidence of cost saving from the use of PFI, and that the incentive to innovate was context dependent, critically involving the level of competition during bidding [b].</p> <p>As a result of this early work, UCL researchers continued investigations that led in 2006 to a further publication which developed and applied theories of transaction cost and asset specificity in the context of PFI, through use of Transaction Cost Economics and Relationship Contracting perspectives [c]. Specific insights were provided by two detailed case studies of the King's College London Hospital and UCL Hospital building contracts, and served to show that longer-term contracts do allow for parties to benefit by economising on transaction costs. In addition to this economics-orientated research, Edkins and Dr Hedley Smyth undertook a relational management research project on the role that PFI/PPP plays in changing how contracting parties interact and relate, and how relationships can best be managed [d]. This research revealed the differing strengths and types of trust within a PFI consortium and externally with its public sector client.</p> <p>In 2009, researchers embarked on a strategic partnership between UCL and KPMG which has led to four research-driven, practitioner-targeted reports, as well as two academic conference papers. This two-year Knowledge Transfer Partnership (KTP) led by Edkins and Ive, with Alex Murray as researcher, had the remit to develop methods and collate data to enable benchmarking of the</p>

Impact case study (REF3b)

operational performance of privately financed social infrastructure projects, focussing on PFI schools and hospitals. This work developed methods to collate and analyse public and quasi-public data from diverse sources and empirically test propositions in the influential economics literature on PFI-style contracts concerning expected operating cost savings as well as implications for facility quality [e].

Hence the research work has been led by Graham Ive (Senior Lecturer at UCL from 1995 to present) and Dr Andrew Edkins (Researcher and Lecturer at UCL 1996–99, Senior Lecturer from 2004 to present, and currently Head of Department in BSC&PM), with input from Germán Millan (Research Assistant from 1997–2000), Hedley Smyth (Senior Lecturer from 2004 and now Director of Research), and Alex Murray (Research Associate from 2009 to present).

3. References to the research

[a] Ive, G. & Edkins, A. (2000) Authors for Construction Industry Council, *Constructors' Key guide to PFI*, London: ICE Publishing. [ISBN. 978-0-72772-662-9; Available on request]

[b] Ive, G., Edkins, A. & Millan, G. (2000) Authors for Construction Industry Council, *The role of Cost Saving and Innovation in PFI Projects*. London: ICE Publishing. [ISBN. 978-0-72772-879-1; Available on request]

[c] Ive, G. & Rintala, K., (2006) 'The economics of relationships', in Pryke, S. & Smyth, H. (eds.), *The Management of Complex Projects* (2006), pp. 282–302. [ISBN. 978-1-40512-431-7; Available on request]

[d] Smyth, H. J. & Edkins, A. (2007) 'Relationship Management in the Management of PFI/PPP Projects in the UK', *International Journal of Project Management*, 25 (3): 232–240. [DOI: [10.1016/j.ijproman.2006.08.003](https://doi.org/10.1016/j.ijproman.2006.08.003)]

[e] Edkins, A., Ive, G. & Murray, A. (2011) 'Operating the renewed school estate – an empirical insight into cost and PFI', Paper presented at RICS COBRA 2011 international conference, Salford. Awarded the RICS Research Award for Best Paper in Construction. [Available on request]

The quality of the underpinning research is also demonstrated by the following grants:

- Ive, G. (PI), *Constructors' Key Guide to PFI*, Partners in Technology Grant with Construction Industry Council, 1996-97 (£42,000). This grant led to output [a] above.
- Ive, G. (PI), *Role of cost saving and innovation in PFI projects*, Partners in Innovation research grant with Construction Industry Council, 1998–2000 (£34,600). This grant led to output [b] above.
- Edkins, A. & Ive, G. (PIs), *Develop an independent and objective measurement system for the evaluation of operational performance of projects*, KTP Grant (graded 'Good') via Technology Strategy Board, 2009–11 (£65,911). This grant led to output [e] above.

4. Details of the impact

The UCL team's objective and empirical research has permitted the creation of vital training and tools for PFI for practitioners in the UK. More broadly, it has shaped the understanding of PFI internationally, particularly in New Zealand, where it assisted in the establishment of a carefully planned PFI framework. It has also informed the development of emerging PFI strategies and policies, including, in the UK, the development of PF2 launched in December 2012.

(i) Developing training and tools for industry practitioners, and building a community of practice: The two research publications for CIC [a, b] were highly acclaimed. The first was reprinted three times following its publication in 1998, and is still in print; it was also translated into Japanese. It provided the first significant, unbiased and research-based explanation for professional service firms in the construction industry of what PFI consisted of, how it worked, and the risks inherent in its use. Prior to this point, firms had taken on PFI commissions and contracts without realising the impacts on their business risk and reward. These two books thus exemplify the significant influence of UCL research which was sustained throughout the REF impact period.

From 2006–07 through to 2009–10, the UCL research team designed and delivered a bespoke executive education course based on the research described in Section 2, named the Project Directors' Development Programme (PDDP). This emerged from a commercial contract awarded by a section of the Local Government Organisation then known as the 4ps (now Local

Impact case study (REF3b)

Partnerships), whose purpose is to support UK local authorities. The contract awarded had a minimum five year value of £440k and was competitively won by the UCL research team in 2006-07 under EU procurement rules. This research-based training programme enabled delegates to apply findings to 'live' PFI/PPP projects, developing a cohort of professional project directors with transferable skills. In the first cohort of 23 delegates, there were more than 35 ongoing projects under management, ranging from the building of care homes and fire stations to the creation of a major waste-to-energy plant, which could be studied. The projects involved leading commercial companies and banks, and had an estimated total construction cost of over £500m and a total net present value of in excess of £5bn. Two full cohorts completed UCL's PDDP course before it was cancelled in 2010 due to the global financial crisis.

Through the PDDP, UCL researchers provided delegates with a clear appreciation of their responsibilities in terms of leading the public sector as a client and commissioner of PFI/PPP projects, and enabled them to understand the opportunities and barriers driving innovation and risk sharing, and to recognise the importance of managing the relationship as well as highly complex contracts. One example of a direct impact on a delegate was that whilst on the PDDP course they renegotiated a previously poor contract with a consultancy that represented the client. Even with the cancellation of many major projects due to the economic downturn, PDDP had sustained and direct impacts on delegates which enabled them to apply the findings to their future work. As the LGO's Director for the PDDP stated: *'I have met a number of delegates who attended the course. All attest to the professional and personal positive impact which the course had upon them. Some have moved on to other projects, having completed those which they were doing during the course ... Others have been promoted within their authority or other authorities, in which they acknowledge that the PDDP played a significant part in having widened their expertise and attitudes'* [1]. The course's value was further recognised by its receipt of the 2009 Association for Project Management 'BNFL Award' for providing the greatest contribution to the development of project management [2].

Building on the success of the PDDP course, in 2009–10 the research team – together with senior individuals from KPMG and Ashurst LLP (both leading consultancies in PPPs) – developed and delivered a one-day project finance workshop attended by early career professionals in those two companies. Following its initial success, Ashurst LLP went on to run the same workshop for Balfour Beatty annually from 2011 (an estimated 40 participants). This workshop also proved to be of significant value to participants, as a Balfour Beatty staff member commented: *'It was clear from everyone's enthusiastic participation yesterday afternoon that we all really enjoyed ourselves and certainly learned something in the process ... the feedback in the office this morning is overwhelmingly positive (which is rare for a full day's training!'* [3].

(ii) Informing UK debate and policy development: The Knowledge Transfer Project (KTP) from 2009–11 with KPMG played a vital role in answering requests from government and central agencies for a better, more evidence-based analysis of the performance of privately financed projects [e]. A key objective of the KTP was precisely to construct a process of expert discussion. As a result, a collaborative network was formed called the Infrastructure Intelligence Club (IIC); it comprised 16 major players in the UK infrastructure investment and PFI/PPP projects market [4]. Over a series of meetings between 2010 and 2012, the IIC discussed the issues arising from the presentation of the research team's objective analyses carried out on the operational performance of schools and hospitals [e]. As a result, the organisations involved were able to clearly establish empirically based assessments of PFI/PPP performance and hence put forward the merits of using this form of procurement with a wider public audience, based largely on UCL research.

The IIC members met during a time when PFI/PPP was receiving significant negative press attention in the UK. The objective empirical work presented and discussed by IIC members revealed that the overall operational performance of PFI/PPP school and hospital projects was not as dire as commonly portrayed. As part of this debate, in 2010 *The Times* published an article on 'PFI-funded hospitals outshine peers in study of cleanliness' which covered the empirical research from the KTP run by UCL [5]. Public concerns over PFI led to various investigations, including one in 2012 by the charity Civitas, which moderated its argument against PFI financing again based, at least in part, on the UCL research [6; pp. 2–3].

The empirical analyses produced on UK PFI/PPP performance were considered as part of the

strategic review of PFI/PPP conducted by HM Treasury in 2011–12. This review also involved gathering views from many varied sources, including some IIC network members, such as KPMG. The IIC members argued that there were public sector benefits from using PFI/PPP, drawing heavily on evidence produced by the UCL research [7]. In December 2012, HM Treasury published its decision, not to scrap PFI/PPP – as much of the popular press had predicted – but to modify it and rename it as ‘PF2’. Also in late-2012, the UCL team was invited by The Infrastructure Forum (TIF), a national infrastructure think-tank, to write a report comparing the performance of public and private hospital services in the UK, aimed at senior policy and industry circles [8].

(iii) Influencing the strategic development and current understanding of PFI internationally: New Zealand had historically been extremely wary of using PFI to procure its infrastructure. In 2008, however, following a change of government there that was willing to consider the use of PFI/PPP – but only after having first fully explored and understood its ramifications. The embryonic PPP market was established in New Zealand in 2009 with the announcement of the Transmission Gully road project. Noting this development, Edkins made contact with the New Zealand Council for Infrastructure Development (NZCID), and proposed designing and delivering an executive level seminar series to provide a strategic overview and insight into the fundamental principles and practice associated with PFI, including the wider use of Public Private Partnerships (PPP). These workshops were brought to the attention of the New Zealand Treasury, which offered its formal support to this initiative as an important means of ensuring that the implementation of PFI in New Zealand learned from best practices whilst avoiding errors made elsewhere.

As a result, in 2010 and 2011 two executive level seminar series were delivered in Auckland and Wellington (a total of four separate three-day seminars) attended by about 200 senior delegates in total, from both industry and government [9]. The workshops involved presentations that drew on the accumulated knowledge originating in the UCL team’s research [a–d], as well as the ongoing UCL research through the KTP with KPMG [e]. As a representative of the New Zealand Treasury noted, they *‘took place during the establishment of NZ’s PPP programme and assisted with educating the NZ public sector in the overseas experience of the PPP model (with which they were not generally familiar). It was useful to the NZ Treasury through assisting with the development of the market and providing an opportunity to test and challenge our own thinking’* [10].

This work in New Zealand also resulted in the UCL research team being invited in early 2012 to hold a formal meeting and make a written submission to the Western Australian Public Accounts Committee, which was then conducting a review of a PPP project. The research team was formally thanked by this organisation for assisting its investigation into the allocation of services at the Fiona Stanley Hospital Murdoch, located 15 kilometres south of Perth, Western Australia [11].

5. Sources to corroborate the impact

[1] Impact commentary on the PDDP course by the former 4ps Director and Programme Commissioner [Available on request]

[2] BNFL Award Certificate from the Association for Project Management [Available on request]

[3] Commentary from Balfour Beatty Capital on the success of the Project Finance workshop. [Available on request]

[4] List of attendees to the IIC briefings at KPMG from 2009–11 [Available on request]

[5] Jameson, A., ‘PFI-funded hospitals outshine peers in study of cleanliness’, *The Times*, 17 May 2010 [Available on request]

[6] Bidgood, E., Report for Civitas titled *PFI: Still the Only Game In Town?*, December 2012 [<http://www.civitas.org.uk/nhs/PFIDec2012.pdf>, PDF]

[7] Testimonial from the former Head of Global infrastructure at KPMG [Available on request]

[8] Mohammadi, A, Murray, A., & Edkins, A., *Value for Money in Hospital Facilities Management: The Evidence*, London: UCL/ The Infrastructure Forum (TIF), October 2013 [<http://bit.ly/17CmWXH>, PDF]

[9] Delegate attendee list from the NZCID seminars in New Zealand [Available on request]

[10] Statement provided by the Deputy Secretary Budget and Public Services of the New Zealand Treasury about the impact of the PPP seminars [Available on request]

[11] Letter of thanks for attendance by UCL team to give evidence to the review by Western Australia Public Account Committee of the Fiona Stanley Hospital contract [Available on request]