

The program level outcomes of PPP field configurations

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ABSTRACT

This chapter explores the comparative extent to which “success” has been achieved in three leading PPP fields: in British Columbia (Canada), Victoria (Australia) and South Africa (see other chapters in this volume). To this end I formulate five broad measures of program success and then conceptualize a number of empirical metrics to assess the extent to which each of these measures has been achieved. The assessment is based on data drawn from PPP project data, informant interviews, a review of statements relating to PPPs in local newspapers, and a survey among central field actors on the extent to which a number of PPP program development tasks had been achieved. The results show varying levels of success in the three cases in terms of each of the five measures. Rather than comment on an overall level of success, I use the findings to develop six tentative propositions on the connections between PPP enabling field characteristics and program-level outcomes.

INTRODUCTION

There is a growing understanding among scholars that the move towards Public Private Partnerships (PPPs) for infrastructure does not simply substitute private sector capacity for public sector capacity; rather it requires new forms of public sector capacity to be developed to overcome various challenges that infrastructure PPPs face (see for instance Dutz et al. 2006). In an earlier paper in this volume (see Chapter 2) I showed that this PPP “enabling capacity” has not been answered by a reformation of public agents alone – rather a network of new “enabling organizations” (public, private and non-profit) has emerged in response. These organizations, in varying ways, attempt to enable the development and continued operation of PPPs, for the benefit of public, private, and civic actors. These “PPP enabling organizations” include: Sponsoring Departments, PPP Units, Transaction Advisors, Transaction Auditors, Public Regulators, Non-public regulators, Advocacy Associations, and Local, Regional and Multinational Development Agencies.

I proposed elsewhere (see other papers in this volume) that the concept of an *organizational field* (DiMaggio, 1991; Scott and Meyer, 1991; Scott et al., 2000), a concept from the institutional theory literature, can be usefully employed as a theoretical lens in this regard. DiMaggio and Powell (1983: 148) define an organizational field as “those organizations that, in the aggregate constitute a recognized area of institutional life: key suppliers, resource and product consumers, regulatory agencies, and other organizations that produce similar services and products.” I termed this network of PPP enabling organizations the “PPP enabling field” (see Chapter 2 and 3). My detailed review of three leading PPP enabling fields (in British Columbia, Victoria, and South Africa) is included in Chapter 3 of this volume. I observed a similar set of actors in each of the fields, but detected significant variation in the characteristics of these actors. In addition I found that, even within each field, the actors are arranged in varying combinations on different projects.

In the current chapter I attempt to build on the aforementioned work by considering the impacts of these field differences on the overall “success” of PPP enablement in a region. I start by reviewing previous literature on PPP program success to develop five broad dimensions of “successful” PPP enablement. Next, I lay out my methodology for evaluating the extent to which each dimension has been achieved in each region, identifying more specific proxy metrics for

measuring this. I then compare the outcomes in each of my cases to develop theory on what the impacts of field differences are on enablement success.

MEASURING SUCCESS - CLUES FROM THE LITERATURE

The question of what constitutes and leads to a “successful” PPP project has been widely debated in the literature (Akintoye et al. 2003; Jefferies et al., 2002; Li et al., 2005b; Zhang, 2005). PPP projects are, however, invariably situated within larger “PPP programs”—i.e., more or less coordinated collections of PPP projects undertaken in a given politically sovereign area. The concept of “success” at this higher program level has received much less attention. The difficulty in making normative judgments of what success looks like, is rooted in the fact that PPP programs can only be judged against the stated aims of the program. Unfortunately very few PPP programs have such explicit “mission statements.”

Still, the literature that deals with PPP programs provides a foundation for thinking about “success” in this regard. In most of this literature the focus is predominantly on the tasks that lead to success, with “what constitutes success” often only implied. In my review of this literature below I therefore first come up with a list of tasks that are needed to ensure program success. Thereafter I tease out the implied aims of these programs as a basis for measuring success.

Literature on PPP programs

A helpful starting point for my review of the PPP program literature is the work of Kumaraswamy and Zhang (2001), who propose that successful PPP programs need to create favorable investment environments for private providers of infrastructure. They identify seven salient actions to achieve this, including: creating an adequate legal and regulatory framework, and ensuring a stable political environment. A study by the Canadian Council for Public Private Partnerships (CCPPP, 2006) provides a similar perspective. The study brought together representatives from more than 25 public, private and civic organizations involved in the PPP process in Canada. They present three main functional areas that need to be addressed: tasks that develop the PPP environment, tasks aimed at improving project development, and tasks that focus on the procurement process. Work by Durchslag et al. (1994) takes a similar view, proposing that PPP success depends on creating favorable conditions for investment. They propose seven measures to achieve this, including providing political commitment, maximizing transparency, and ensuring consistency between projects.

A number of authors have identified the need to develop the capacity of governmental departments to ensure PPP program success. For example, work by Aziz (2007) reviews the experience of the UK and British Columbia PPP programs, finding that a successful program needs a public sector that has sufficient appreciation of PPP financial objectives, risk transfer, and performance specifications. Other authors have stressed the need for oversight or regulating capacity as governments attempt to control the discretion of sponsoring departments (OECD 2008) and regulate the behavior of private providers (Pongsiri, 2002).

Yescombe (2007) provides support for the above discussion. He asserts that the actions required for developing a PPP program include those aimed at making the environment attractive for private investment (for example through developing and applying the legal framework consistently, and by coordinating the PPP deal-flow), and those aimed at ensuring the capacity of governmental departments (for example through training, managerial support, and publishing guidance materials).

Probably the most complete review of PPP program governance is the recently published guidelines for the governance of PPPs by the United Nations Economic commission for Europe (UNECE, 2007). Here the focus is wider than simply ensuring an attractive investment environment, or a capable Public Sector, but the need to address the concerns of users and other constituents is also recognized. The guidelines propose seven broad principles of PPP governance, with close to 50 areas of concern that need to be addressed. The seven principles are:

- (i) a coherent PPP policy that achieves the support of the general population;
- (ii) sufficient governmental capacity to develop and manage PPP projects;
- (iii) a simple and consistently applied legal framework to attract investment;
- (iv) a sophisticated risk transfer and mitigation strategy on all PPP projects;
- (v) procurement processes that are fair and transparent;
- (vi) making the improvement of the “public interest” the main objective of the PPP program; and
- (vii) ensuring that all projects provide environmentally sustainable solutions.

Lastly, I should mention the significant body of literature on Critical Success Factors (CSFs) for PPPs (Akintoye, Hardcastle, Beck, Chinyio, & Asenova, 2003; Jefferies, Gameson, & Rowlinson, 2002; Zhang, 2005). The work by Li and colleagues (Li, Akintoye, Edwards, & Hardcastle, 2005) presents a helpful synthesis of the CSF literature, with the authors identifying 18 broad factors that determine PPP success. Although CSFs are not completely analogous to PPP program development tasks, they provide us with significant insight into the issues that PPP development tasks need to address.

Identifying tasks needed for PPP program success

Integrating the various resources mentioned above, we can identify 15 general actions that are needed to ensure the successful development of a PPP program, including the specific tasks that make up each of these measures. These measures and their related tasks are shown in Table 1 below (with the applicable articles that reference each task indicated in the last column).

Table 1 - PPP Program Development Tasks

No	Broad action	Detailed task needed to develop a successful PPP program	References
1	Develop supportive legal framework and apply consistently	Establish a clear legal and regulatory framework	1, 2, 3, 4, 6, 7, 8, 9
		Apply framework and policies consistently	1, 3
		Standardize contracts and documents	4, 5, 8
		Ensure that policies are able to accommodate change	1
		Consult the public and the market in policy development	1, 5
		Develop legal capacity to handle PPPs (train lawyers and judges)	1
2	Provide political commitment	Provide high level political commitment to the PPP program	1, 7, 8
		Political risk management through advocacy within the government	2

Table 2 - PPP program development tasks (ctd.)

No	Broad action	Detailed task needed to develop a successful PPP program	References
3	Improve public sector knowledge of PPPs	Provide training to public sector staff	1, 3
		Communicate lessons learnt to governmental actors	3
		Publish guidance materials to help public sector organizations	3
		Ensure that governmental agents understand the objectives of private finance	4
		Develop pilot projects	2, 3
4	Increase public awareness and understanding of PPPs	Increase public awareness and understanding of PPPs	1, 2, 5, 8
		Communicate lessons learnt to civic actors	3
		Inform citizens of their right to participate on project developments	1
		Gain buy-in from key constituents (e.g. unions) for PPPs	8
5	Develop and support market of private providers	Take actions that attract private investment, e.g developing the domestic capital market	1, 2, 6, 8
		Take actions that sustain state credibility	2, 6, 8
		Ensure a stable political environment	6, 8
		Publish guidance materials for the benefit of private sector	3
		Involved private providers to influence project structure, size, scope	5
		Reduce cost and duration of procurement	5
		Provide support to private providers through loans, guarantees, etc.	1, 6, 7, 8
		Ensure “even-handed” regulation (i.e. avoid over regulation)	1, 9
6	Coordinate deal flow	Coordinating deal-flow to avoid a “bunching” of projects	1, 3
		Communicate upcoming projects to market	5
		Coordinating public-sector “buying power”	3
7	Improve program transparency	Have transparency in project development (e.g. options analysis)	1, 7, 8
		Increase procurement transparency (share information during/after the bidding phase)	1
		Make sure the public are well informed regarding project details	1
8	Increase program accountability	Keep the PPP program accountable of its performance	1
		Incorporate user feedback in performance measures	1
		Make use of performance specifications on PPP projects	2, 4
9	Independent oversight of project execution	Have independent oversight of procurement	1
		Provide for independent oversight of performance monitoring (and publish results)	1

Table 3 - PPP program development tasks (ctd.)

No	Broad action	Detailed task needed to develop a successful PPP program	References
10	Ensure quality of projects, with adequate level of risk transfer	Identify the most suitable projects and execute them in a way that takes local context into account	1, 2, 5, 8
		Select strong private consortia for projects	8
		Ensure good project and contract management on all projects	2, 8
		Provide clear contract clauses for “step-in” rights	1
		Assess VfM when selecting a delivery system	1, 2, 4, 8
		Identify all risks early in the project	1, 5
		Transfer optimum level of risk to the private partner	1, 4, 5, 8
		Be willing to mitigate or retain some risk	1, 8
11	Keep Line Agency discretion in check	Prevent line agencies from making unrealistic commitments on behalf of government	2, 7
		Ensure quality of project development by line agencies	2
12	Provide project specific support to line agencies	Establish a PPP unit to facilitate the process, provide leadership in the PPP program	1, 4, 7
		Provide technical advice and support on specific projects	3
		Provide line agencies with funding for hiring of private consultants	2
		Hire external advisors where necessary to fill the skill gap	1
13	Ensure that PPP projects improve the public interest	Define how PPPs can promote the “public interest”	1
		PPP Policy should have clear economic and social objectives	1, 8
		Ensure equity in access to all citizens (e.g. through subsidies)	1
		Allow for adequate stakeholder consultation	1
		Ensure that private provider complies with H&S requirements	1
14	Ensure fairness of PPP procurement	Follow recognized procurement practices to avoid corruption	1, 6, 7, 8
		Use neutral and fair selection and award criteria	1, 4
		Ensure that PPP unit retains neutrality and independence from private sector	1
		Monitor behavior of private providers to prevent unfair competition, bribes, political influence, etc.	9
		Provide an avenue for complaint to an independent tribunal	1
15	Improve environmental performance of projects	Ensure that projects are delivered in an environmentally sensitive way	1
		Include specific (but realistic) “green” objectives in bid criteria	1
		Carefully review green claims made by bidders	1
		Include green performance in payment mechanisms	1

Table 4 - PPP program development tasks (ctd.)

References:

1: UNECE (2007); 2: OECD (2008); 3: Yescombe (2007), 4: Aziz (2007), 5: CCPPP (2006), 6: Kumaraswamy and Zhang (2001), 7: Durchslag, et al. (1994), 8: Li, Akintoye, et al. (2005), 9: Pongsiri (2002)

Aims of PPP programs and characteristics of success

Beyond specific program development actions, each of my references on PPP program development also implies the existence of broad aims of the PPP programs considered. My review of the literature revealed three common aims: (i) create a favorable investment environment to attract private proponents and ensure competitive tendering conditions that drive value for money; (ii) develop high capacity governmental agencies and departments to ensure efficient and consistent project development, and (iii) address the concerns of users and other constituents to ensure the wide acceptance and legitimacy of the concept of PPPs.

Based on this I propose four characteristics of successful PPP programs:

- *A competitive PPP market* – this aspect is reflective of an attractive investment environment for private investors.
- *An efficient project development process* – rather than seeing a competent PPP enabling field as an end in itself, the capacity of the enabling field is viewed as a vehicle to ensure efficient project delivery (in terms of both time and cost).
- *A growing but well-controlled flow of PPP projects* – this aspect recognizes the tension between rapid growth and project quality
- *Acceptance and legitimacy of the PPP model* – this aspect reflects the extent to which PPP delivery is accepted by a variety of constituents, including government agencies, users, the general public, and private industry
- *Opinion of central field actors* – a final measure is the extent to which central field actors—the most informed and salient role players—believe that the program has been successfully developed.

Below, I propose more detailed metrics to measure the extent to which each of these characteristics is displayed in my three case fields.

METHOD

I propose nine outcome metrics as proxies for the existence of each of the five “ideal” PPP program characteristics identified above. Table 2 lists these metrics, indicating the data source I used in each case.

Table 5 – Measuring “Ideal” PPP Program Characteristics

No	Program characteristic	Direct measure	Data source
1	Competitive PPP market	Average number of bidders per PPP project	Project data
2	Program efficiency	Average length of PPP project development phase	Project data
		Average length of PPP procurement process	Project data
3	A growing but well-controlled flow of PPP projects	Annual value of PPP deals signed (normalized to overall infrastructure provision)	Project data
		Average number of projects per year since inception	Project data
		Pace of projects coming on stream	Project data
4	Acceptance and legitimacy of the PPP model	Number of Line Agencies that have registered projects	Project data
		Number of sectors impacted	Project data
		Affect (positive or negative) towards the PPP concept expressed by various stakeholder groups in local media	Newspaper article review
5	Opinion of central field actors	Response of informants to list of ideal PPP program activities	Survey

I use four data sources for the current assessment:

- Project data** – I reviewed publicly available data on the PPP projects that had reached Financial close by June 2010 in each of my case regions. I obtained this data from on-line sources (project reports and PPP unit websites) and directly from key informants in the respective PPP units. The project data I used is included in Appendix A of this report. Readers will notice that a number of fields are not completed in these tables. This represents information that was not available either on-line or via key informants. My calculations are therefore based on the information that was available.
- Newspaper article review** – I conducted a systematic review of more than 4000 newspaper articles from the leading local newspapers in each of my case regions. I selected all articles between January 1998 and July 2009 that contained the term “public-private” or “private public” in the text body. I then reviewed each article to determine the “affect level” that the reporter had to the concept of PPPs: Negative (-1), Neutral affect (0), or Positive (+1). In cases where the news source lists a third party individual as the source for the news, I identified this party as the reporter. For example, in the statement “Peter Brown, Head of the National Public Union, today condemned the continued use of PPPs in Yugoslavia,” the indirect reporter would be “Peter Brown, Head of the National Public Union,” with an affect level of -1. The number and sources of newspaper articles coded is summarized in Table 3 below. My newspaper selection and coding protocol is included in Appendix B of this document.
- Survey on success of program development tasks** – I asked my informants to complete a survey on the extent to which each of the PPP program development tasks, listed in Table 1, had been attained in their region. The survey was completed by 24 of my informants (6 in British Columbia, 10 in Victoria, and 8 in

South Africa, representing an overall response rate of 57%). Informants graded, on a scale of 1 to 4¹, the extent to which each of these actions had been addressed in the local PPP field. In addition, I asked informants to indicate, also on a scale of 1 to 4², how important this action is to PPP program success in the region. In this way I hoped to control for actions that are not recognized as salient by practitioners.

- **Interviews with key informants** – Lastly, I supplemented the abovementioned quantitative data with qualitative data obtained from semi-structured interviews I conducted with leading actors (in both public and private organizations) in each of the regions. I selected informants from the range of organizations that represent the PPP-enabling field. I conducted a total of 42 interviews distributed evenly between the three regions and the enabling organization types. Interviews were recorded, transcribed, and then coded in a systematic iterative manner with the use of the qualitative coding software QSR Nvivo. See Chapter 3 of this document for a more details on the selection, interview, and coding process.

Table 6 - Summary of Newspaper article coding data

Aspect	British Columbia	Victoria	South Africa
Number of newspapers sourced	7	22	23
Number of articles downloaded	1237	1189	2152
Number of coded events	969	929	967

RESULTS

The results of my analysis are summarized in Table 4 below. I discuss the implications in terms of each of the success characteristics, in turn, thereafter.

¹ The scale was worded as follows: 1 = “has not been addressed,” 2 = “has only been partly addressed,” 3 = “has been largely addressed but more work is needed,” and 4 = “has been fully addressed.”

² The scale was worded as follows: 1 = “not important,” 2 = “somewhat important,” 3 = “important,” and 4 = “extremely important.”

Table 7 - Summary of results

No	Direct measure	British Columbia	Victoria	South Africa
1	Average number of bidders per PPP project	2.8 (n = 10)	2.9 (n = 21)	3.0 (n = 4)
2	Average length of PPP project development phase	9.1 months (n = 11)	9.5 months (n = 12)	15.1 months (n = 9)
	Average length of PPP procurement process	16.5 months (n = 17)	19.6 months (n = 21)	30.5 months (n = 11)
3	Average annual value of PPP deals signed	\$1,232 mil	\$854 mil	\$525 mil ⁷
	<i>As percentage of total annual public infrastructure investment</i>	13% ³	9% ⁵	4% ⁸
	<i>As percentage of 2008 GDP</i>	0.54% ⁴	0.35% ⁶	0.03% ⁹
	Average number of projects per year since inception	2.7	2.2	1.9
	Pace of projects coming on stream	See Figures 1 and 2 below		
4	Number of Sponsoring Departments that have registered projects	4 State level 4 Local level	9 Provincial level 2 Local level	5 National level 6 Provincial level
	Number of sectors impacted (sectors indicated in brackets)	4 (Transportation, Health, Water, and Sports & Recreation)	9 (Water, Health, Telecoms, Transportation, Correctional, Judicial, Research, Education, Tourism/Recreation)	6 (Health, Tourism, Offices, Transportation, IT, Research)
	Affect (positive or negative) towards the PPP concept expressed by various stakeholder groups in local media	See Table 6 below		
5	Average response of informants to list of ideal PPP program activities (See Appendix C)	2.76 (n = 5)	3.02 (n = 10)	2.67 (n = 8)

Competitive PPP market

The results reveal little difference between the 3 fields in terms of the average number of bidders per project. Unfortunately the unavailability of information (specifically in South Africa) detracts

³ Calculated using Capital Expenditure data published in the annual British Columbia Budget and Fiscal Plans between 2001 and 2010. This figure excludes projects that did not have any private financing (the following four projects were excluded: Charles Jago Northern Sport Centre, Residential Care & Assisted Living Capacity Initiative, Pitt River Bridge & Mary Hill Interchange and Port Mann/Highway 1).

⁴ GDP data sourced from http://www.bestats.gov.bc.ca/data/bus_stat/bcea/gdpmp.asp

⁵ Source: Chan et al. (2009: 22)

⁶ GDP data sourced from <http://www.invest.vic.gov.au>

⁷ Please note that the South African project data excludes the Fleet management projects that are reported in the PPP units list of completed projects, as these projects do not fit with my definition of infrastructure PPPs.

⁸ Calculated using unpublished data from Statistics South African (www.statssa.gov.za). The South African average annual public infrastructure investment amounts to \$ 12,199 million for the period 2001 – 2009. This figure includes expenditure by government corporations, which is consistent with the BC and Victoria calculations.

⁹ GDP data sourced from World Development Indicators report

from the rigor of this comparison. I therefore turn to my interview data for additional clarity. Of all my respondents, the Victorian informants were most convinced of the level of competition that currently exists in local PPP procurements. Both my Victorian and South African informants however pointed out the possible lack of competition due to a perceived oligopoly of local banks controlling most of the lending to local PPP projects. As one South African advisor mentioned:

I think the perception is that with the small number of banks operating, all the margins are on the same bracket. If you go to the UK market you put out a thing and you've got 300 banks knocking on your door. You know essentially here there's four or five who can actually come to the table. And if they say this is the bracket where things happen, then it happens in that bracket.

Lastly, one Victorian informant mentioned that the small number of local construction firms who are large enough to bid on PPPs can be seen as anti-competitive:

Probably one of the biggest issues is the concentration of the construction market in Australia, where particularly for the large civil engineering projects there's really a choice of three subsidiaries of the Leighton group or two subsidiaries of Bilfinger Berger. They do compete ferociously against one another, and we've never had anything to suggest that there is collusion between them. Nevertheless there are still groupwide policies and so on that constrain how they bid. And also there are perception issues which drive out some of the potential foreign competition. That does mean we've sort of got a few too many eggs in two baskets.

Unfortunately these quotes do not help us to make a comparative judgment about the level of competition in our three regions.

Program efficiency

The results on program efficiency show surprising similarity between the project development and procurement timeframes in British Columbia and Victoria, while revealing markedly longer timeframes in the South Africa field. These results suggest that the South African PPP enabling field is much less efficient than my other two cases. This finding is supported by my interview data where the majority of my South African informants (mentioned by 8 of my 13 informants) noted the frustratingly slow project development and approval process. This quote by a departmental project manager serves to illustrate:

How is it possible that a project can be in feasibility procurement for four years? How is it possible that we can receive bids for prisons that obviously cost the bidders millions: They handed it in May [2009] and you still [by January 2010] haven't opened it? How is that possible? We are getting a bad reputation by doing that.

A manager at a local development agencies adds:

Well I mean we are all frustrated. When you look at that list [published by the PPP unit showing PPP projects in process] you'll get the impression there's lots to do. But we get frustrated from the fact that these deals are not moving. But secondly as well we all get affected personally. Because it's the infrastructure that we have to live with. So we feel it. All of us. We feel it.

Flow of PPP projects

The British Columbia field has the highest annual dealflow, while the South African field shows a strikingly lower volume of annual deals, both in terms of the average number and value of projects. Normalizing the annual value in terms of total public infrastructure investment and GDP further supports this finding. Clearly PPPs play by far the most significant role in infrastructure delivery in British Columbia, while being much less consequential in South Africa.

Figure 1 below shows the annual dealflow in capital value for each of the three cases since inception.

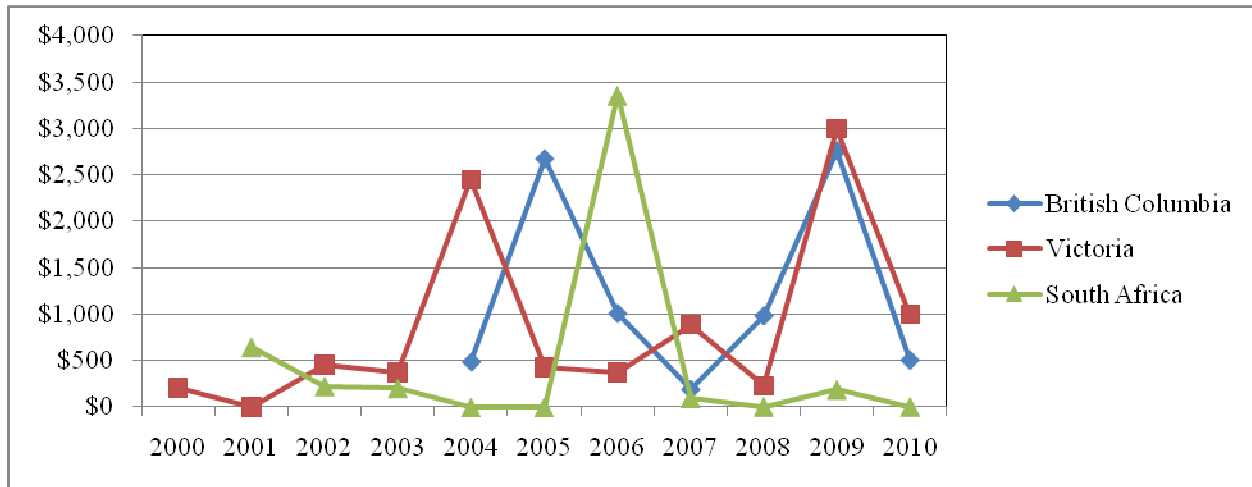


Figure 1 - Annual PPP deal flow (\$ mil)

I have attributed the full capital value of each project to the year of Financial Close. This is not in line with the actual flow of expenditure on PPP projects (most projects have a construction timeframe of between 2 and 5 years); rather, it attempts to capture the industry view of PPP deal flow.

The graph reveals “lumpy” dealflow in all three of our cases. This “lumpiness” is a consequence of both the small number of projects delivered in each region, and the dominance of a small number of large deals in each region. The South African dealflow however is much more inconsistent than those of the other two cases, with the flow spiking noticeably in 2006. This spike is due to the signing of the Gautrain PPP, a project which is an order of magnitude larger than any other PPP signed in South Africa. Large projects dominate the programs in each of our cases (see Table 8) but this is by far the biggest issue in South Africa - the Gautrain project represents 70% of the value of all deals completed to date.

Table 8 - Dominance of two largest projects in total PPP deal flow value

Case	Total number of project to date	Total value of all projects to date	Value of largest project	Largest project share of total value
British Columbia	19	\$8,620 million	\$2,374 million	28%
Victoria	22	\$9,396 million	\$2,790 million	30%
South Africa	16	\$4,732 million	\$3,299 million	70%

Figure 2 shows the annual dealflow in terms of number of projects. This figure again highlights the sporadic nature of the South African field (surprisingly no projects were signed in either

2004 or 2005). I conclude that the South African deal flow is the least consistent of my three cases. I lastly note that none of the fields show growth of the program over time, in terms of either value or number of projects completed annually.

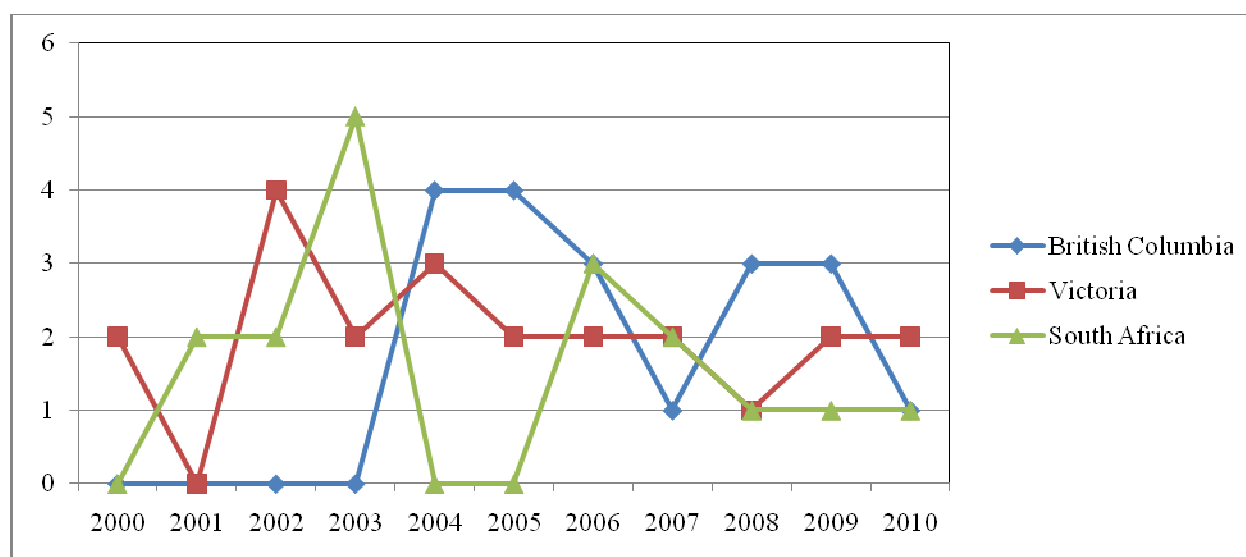


Figure 2 - Annual PPP deal flow (number of deals signed)

Acceptance and legitimacy of PPPs

My assessment of the acceptance and legitimacy of PPPs in each of the regions is based on two sets of data. Firstly, the data presented under heading 4 in Table 3 show the number of line departments that have registered projects in each field, and the number of sectors impacted to date. In terms of both these measures PPPs appear to be most widely accepted in Victoria. This is followed by the South African field, with the British Columbia field having the “narrowest” impact: only 4 state level departments have undertaken projects in only four sectors to date.

My second data source is the results of the newspaper article survey, presented in Table 4 below. From this data I draw the following conclusions:

- *All events:* The results for Victoria and British Columbia are very similar, showing a balanced mix of positive, neutral and negative comments. The South African results are surprisingly more positive. I propose two possible explanations for this: (i) There is some inherent difference in the way that public debate is carried out in the South African media; or (ii) the more limited implementation (as shown above) of PPPs has led to both a significant aspiration on the part of local proponents, and a lower level of vocal criticism from local PPP opponents. I suggest that the answer is a combination of these two factors.
- *Political Leader and Ministers:* The findings suggest very strong leadership in the Victoria and British Columbia fields, while indicating a distinct lack of political leadership at the highest level in South Africa. There does however seem to be comparable support at the ministerial level in the three cases.
- *PPP unit:* Partnerships BC and the South African PPP unit have both used the media to promote the use of PPPs. It is surprising that Partnerships Victoria have not done this at all.

Table 9 - Results of newspaper article review

Field	British Columbia			Victoria			South Africa		
	<i>-1</i>	<i>0</i>	<i>1</i>	<i>-1</i>	<i>0</i>	<i>1</i>	<i>-1</i>	<i>0</i>	<i>1</i>
<i>Affect level</i>									
All events (number)	212	459	298	236	396	297	74	428	465
All events (percentage)	22%	47%	31%	25%	43%	32%	8%	44%	48%
Average	0.089			0.066			0.404		
Governmental actors	28	74	150	25	58	156	21	111	194
Political Leader	0	5	26	0	22	61	1	6	10
PPP Unit	0	1	9	0	0	0	0	4	11
Ministers	3	31	35	4	5	40	7	13	57
Local government	23	12	38	1	3	12	1	15	16
Auditor General	0	0	0	0	2	1	0	0	0
Incumbent political party	1	0	4	6	3	9	5	1	3
Opposition political parties	29	0	0	21	8	12	1	0	21
Civic actors (incl reporters)	182	367	94	200	309	78	49	244	107
Reporters	50	344	46	121	273	18	21	223	58
Editorials	71	83	76	104	86	58	3	11	27
Labor unions	50	1	0	7	2	13	10	2	1
Private sector	2	17	54	8	29	63	3	72	144
Advocacy organizations	0	0	4	0	0	4	0	1	10

- *Local government*: The findings suggest both a higher salience of PPPs at a local government level, and moderate opposition in this regard in British Columbia. The other two cases had a small number of generally positive statements by local government representatives.
- *Auditor General*: The results suggest that the Auditor General has only entered the public debate on PPPs in Victoria, as I did not observe references by the Auditor Generals in either of the other two cases.
- *Incumbent political party*: The results suggest some debate over the merit of PPPs within the ruling parties in both Victoria and SA. The Liberal party in British Columbia seems to be much more unified in their acceptance and support of the PPP model. This is not surprising given the more left-leaning, pro-large government, parties in power in both South Africa and Victoria.

- *Opposition political parties:* The political debate in British Columbia is clearly the most polarized of the three cases. This is understandable as the main opposition to the right-leaning incumbent Liberals being the leftist NDP. Part of this divide has resulted from the unapologetic stance that the incumbent government has taken to labor concerns in the implementation of the PPP program. There is some detraction by the political opposition in Victoria, but most of the opposition parties in South Africa seem to favor a stronger adoption of the PPP model.
- *Civic actors, reporters and editorials:* Civic actors account for the majority of the negative comments about PPPs in all three our cases. This includes actors such as academics, non-governmental organizations, citizen groups, newspaper columnists, and labor unions. Newspaper reporters and columnists made the most negative comments in Victoria, dominated by one specific columnist, Kenneth Davidson, who wrote close to 50 percent of the negative editorials about PPPs in this region.
- *Labor unions:* The results suggest that labor union opposition to the use of PPPs is by far the strongest in British Columbia, with some opposition also noted in South Africa. Again the unapologetic stance taken by the Liberals goes a long way to explaining this in British Columbia. In contrast the Unions appear to be much more supportive in Victoria, probably due to the pro-union approach that the Bracks government has taken (see Chapter 4 of this volume), and the historic connection between labor pension funds and infrastructure investments.
- *Private sector:* The findings show unsurprising support from private sector actors in all three cases. A large number of private actors (mostly from the financial, consulting and construction industries) promoted the use of PPPs in the media in all three cases.
- *Advocacy orgs:* As expected, PPP advocacy organizations also made supportive comments about PPPs in all three of my cases.

Opinion of central field actors

My program development task survey recorded the extent to which, in the opinion of a number of central (and highly informed) field actors, tasks that are needed to successfully develop a PPP program have been fulfilled in each region. To this end it represents an important measure of the success of each of my case fields. The results of the survey are included in Appendix C.

The results show the highest satisfaction level by my informants in Victoria, followed by British Columbia, with South Africa coming in last. As mentioned I controlled for the fact that some tasks might not be relevant for some of the reasons, by asking informants to also rank the importance of each task. This control variable did not reveal tasks that should be excluded from the list¹⁰. This suggests that, in the opinion of the most informed field actors, the Victorian field has been most successful in fulfilling the actions needed to make a program successful.

Summary of findings

The findings are summarized in Table 7 below.

¹⁰ Responses on the importance of each of the rated actions to overall program success did not reveal a task rated lower than 2 (“somewhat important”) in any one field, not task with an average (between the three fields) under 2.5, and only 5 of the 64 tasks obtaining an average rating under 3 (“important”). The average rating for all 64 tasks was a high 3.45.

Table 10 - Summary of findings

No	Direct measure	British Columbia	Victoria	South Africa
1	Competitive PPP market	Insufficient data to reach a comparative conclusion. All three fields average close to the desired 3 bidders per project.		
2	Program efficiency	Similar timeframes to that recorded in Victoria.	Similar timeframes to that recorded in Victoria. Some respondents have commented positively on fast decision making and development process.	Much slower development and procurement processes, and inefficiency confirmed by frustrated interviewee comments.
3	A growing but well-controlled flow of PPP projects	Highest annual dealflow of our three cases, with PPPs playing a very important role in total public infrastructure delivery. Slightly more inconsistent annual dealflow than that of Victoria, with possible indication of contraction over time.	Slightly lower annual dealflow than that of British Columbia, with PPPs forming a much smaller part of total public infrastructure delivery. Most consistent annual dealflow of the three cases, but no indication of growth over time.	Much lower annual dealflow, with PPPs playing only a small part of total public infrastructure delivery. By far the most inconsistent dealflow of the three cases, with some year without any projects, and dominance of one very big project.
4	Acceptance and legitimacy of the PPP model	<p>“Narrowest” impact of PPP delivery of the three cases, with only 4 sectors impacted to date.</p> <p>Media statements are on balance more positive than negative, but indicate ongoing public debate over efficacy of PPPs. Clear indication of strong political leadership, and promotion by PPP unit. Debate is very polarized around incumbent and opposition parties, with strong opposition from labor. Significant criticism at local government level.</p>	<p>Widest “acceptance” and implementation of the model of our three cases, with 9 sectors impacted.</p> <p>Distribution of affect levels similar to British Columbia, being positive on balance. Large number of negative statements do indicate ongoing public debate, but much less polarized along party lines. Very strong political leadership. Surprising that PPP unit made no statements. Unions not as opposed, with criticism from a number of key civic actors. Only case where Auditor General has entered debate.</p>	<p>Slightly wider acceptance and implementation of model than in British Columbia, but much less than Victoria.</p> <p>Overall comments are surprisingly positive. Clear lack of political leadership (at the highest level) although some ministers appear to be in favor. PPP unit has been strong proponent in the media (strongest of the 3 cases). Incumbent political part is much less supportive than political opposition parties. Strong opposition from labor unions, but very supportive (and vocal) private sector.</p>
5	Opinion of central field actors	Central field actors are slightly less satisfied than the Victoria respondents with the extent to which all the required PPP program development tasks have been completed.	Central field actors are very satisfied (highest of three cases) with the extent to which key program development tasks have been fulfilled. Suggests a very thorough and well thought out institutional model.	Central field actors are least satisfied of the three cases by the extent to which all the needed program development tasks have been completed.

IMPLICATIONS FOR PPP FIELD CONFIGURATIONS

The purpose of this chapter is to comment on the impact that different field characteristics exert on the success of PPP programs. Drawing this linkage is however a perilous exercise. A large number of factors, external to the PPP enabling field, have a bearing of the extent to which the

field is able to deliver a successful program. I have endeavored to control for this to some extent by choosing cases that have comparable institutional contexts. Still, I note here that there are external factors that have not been controlled for, specifically differences in the historic notions of public versus private initiative, bureaucratic traditions, and local infrastructure needs. Any tentative implications that I draw from the data presented above are presented in the light of these obvious limitations.

Still, I propose six tentative propositions on the linkages between PPP enabling field characteristics and PPP program outcomes.

Proposition 1: *A PPP unit that drives project delivery will lead to a more efficient project development and delivery process.*

Support for this proposition is drawn from the fact that project development and delivery timeframes are the shortest in British Columbia. This finding might be expected intuitively, since the key strength of a centralized delivery approach is that it is not encumbered by the demands of a diverse group of departmental stakeholders.

Proposition 2: *A PPP unit that drives delivery (in the presence of strong political leadership) will lead to higher proportional dealflow.*

Again the British Columbia case, where Partnerships BC drives project delivery, is used as empirical support. This also makes intuitive sense, as a strong push for projects will more rapidly lead to a high dealflow of PPPs, than if dealflow is dependent on an emergent pull from sponsoring departments. Some commentators have proposed that this might lead to an excessive number of deals.

Proposition 3: *A PPP unit that drives delivery will struggle to have a wide impact with broad acceptance among different governmental departments.*

As before the case of British Columbia is used as support. And again it makes intuitive sense. The drawback of centralization is that it leads to a lack of buy-in from sponsoring departments who are forced to submit to the leadership of the centralized governmental actor (in this case the PPP unit).

Proposition 4: *There is a relationship between a lack of political leadership and inefficient project development and delivery.*

Here the cumbersome development process of the South African market is used as empirical support. A large number of my South African informants commented on the time it took to get project documents and funding commitments approved by decision makers. I hypothesize that high level political support for the PPP program would have (at least to some extent) overcome these bureaucratic barriers, leading to an increase in the dealflow and efficiency of the delivery process (not necessarily to the levels observed in British Columbia or Victoria).

***Proposition 5:** Implementation of PPPs by a right-leaning government will lead to greater political polarization of the PPP debate.*

This is illustrated by contrasting our three cases: British Columbia has a right-leaning government, while the Victorian and South African are arguably more left-leaning. At their core, PPPs are founded on a belief in the superiority of private incentive over governmental action. Implementation by right leaning governments will therefore naturally lead to polarizing of the debate on PPPs. Where left leaning governments have constructed or reconstructed the PPP enabling field (in South African and Victoria) the program benefits from a decline in political rhetoric. The discussion in Chapter 4 of this volume provides further historic details for how the debate became so polarized in British Columbia.

***Proposition 6:** PPP field that has gone through more than one iteration can lead to a more robust institutional model.*

The Victorian case illustrates the extent to which a major restructuring of the PPP field can lead to a much more robust institutional model. That is not to say that this happens automatically. But my Victorian informants were clearly more satisfied by the way that the model had been implemented than was the case in either British Columbia or South Africa.

CONCLUSION

This chapter has explored the comparative extent to which the PPP enabling fields in British Columbia, Victoria, and South Africa have been able to deliver successful PPP programs or portfolios. To this end I formulated five broad measures of program success and then conceptualized a number of empirical metrics to assess the extent to which each of these measures had been achieved. This was drawn from PPP project data, informant interviews, a review of statements relating to PPPs in local newspapers, and a survey on the extent to which a number of PPP program development tasks had been achieved.

The results showed varying levels of success in the three cases in terms of each of the five measures. Rather than comment on an overall level of success, I used the findings to develop six tentative propositions on the impact of PPP enabling field characteristics on program level outcomes.

This paper represents an initial step in linking field characteristics to program outcomes. More work is needed to develop a more robust conception of success, specifically including the stated aims of each of the programs, and assessing in more detail the impact on infrastructure delivery in general¹¹. In addition, it would be helpful to assess the impact on program outcomes over a longer time period than is currently available. Lastly, I note that my work does not consider the wider impact of the creation of a PPP program on the traditional public sector infrastructure delivery process. Some of my informants suggested impacts on the approach to facility planning and asset management, but my work did not explicitly consider this aspect.

¹¹ This would firstly include measures of the impact on total infrastructure delivery, but it would also be on use to investigate the extent to which the use of PPPs have changed public sector behavior beyond PPPs – specifically in terms of planning rigor and development coordination.

REFERENCES

- Akintoye, A., Hardcastle, C., Beck, M., Chinyio, E., & Asenova, D. (2003). Achieving best value in private finance initiative project procurement. *Construction Management and Economics*, 21(5), 461-470.
- Aziz, A. M. A. (2007). Successful delivery of public-private partnerships for infrastructure development. *Journal of Construction Engineering and Management*, 133, 918.
- Bazeley, P., & Richards, L., (2000) *The NVivo qualitative project book*. Sage.
- CCPPP. (2006). Responsible PPP Procurement for British Columbia. Available online at: <http://www.pppcouncil.ca/publications.asp>: The Canadian Council for Public-Private Partnerships.
- Chan, C., Forwood, D., Roper, H., & Sayers, C. (2009). "Public Infrastructure Financing: An International Perspective," *Productivity Commission Staff Working Papers*, Victoria, Australia: Commonwealth of Australia.
- Cuttaree, V. (2007). *International Experience in Establishing and Operating PPP Units*, Retrieved 17 May 2010, from <http://siteresources.worldbank.org/PPPILP/Resources/1-Vikram.pdf>
- Davies, P., & Eustice, K., (2005) *Delivering the PPP promise - A review of PPP issues and activity*, London, UK: Price Waterhouse Coopers.
- DiMaggio, P. J., (1991) "Constructing an organizational field as a professional project: US art museums, 1920-1940," in: *The New Institutionalism in Organizational Analysis*, W. W. Powell and P. J. DiMaggio, eds., University of Chicago Press, Chicago, 267-292.
- DiMaggio, P. J., & Powell, W. W., (1983) "The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality," *American Sociological Review*, 48(2), 147-160.
- Durchslag, S., Puri, T., and Rao, A. (1994). "The Promise of Infrastructure of Privatization." *The McKinsey Quarterly*(1).
- Dutz, M., Harris, C., Dhingra, I., & Shugart, C., (2006) "Public Private Partnership Units: What Are They and What Do They Do," *Public Policy for the Private Sector*, 311.
- Eisenhardt, K. M., (1989) "Building theories from case study research," *Academy of management review*, (14(4)), 532-550.
- Farrugia, C., Reynolds, T., & Orr, R. J., (2008) "Public-Private Partnership Coordination Agencies: A Global Perspective," *CRGP Working Paper*, Stanford: Collaboratory for Research on Global Projects.
- Glaser, B. G., & Strauss, A. L., (1967) *The discovery of grounded theory: Strategies for qualitative research*: Aldine Transaction.
- Jefferies, M., Gameson, R., & Rowlinson, S. (2002). Critical success factors of the BOOT procurement system: reflections from the Stadium Australia case study. *Engineering Construction and Architectural Management*, 9(4), 352-361.
- Kumaraswamy, M. M., & Zhang, X. Q. (2001). Governmental role in BOT-led infrastructure development. *International Journal of Project Management*, 19(4), 195-205.
- Li, B., Akintoye, A., Edwards, P. J., and Hardcastle, C., (2005b) "Critical success factors for PPP/PFI projects in the UK construction industry," *Construction Management and Economics*, 23(5), 459-471.
- OECD. (2008). *Public-Private Partnerships: In Pursuit of Risk Sharing and Value for Money*: OECD Publishing.
- Pongsiri, N. (2002). "Regulation and public-private partnerships." *International Journal of Public Sector Management*, 15(6), 487-495.

- PPIAF, (2007) *Public-Private Partnership Units: Lessons for their Design and Use in Infrastructure*, Washington, D.C., U.S.A.: Public-Private Infrastructure Advisory Facility.
- Scott, W. R., and Meyer, J. W., (1991) "The Organization of Societal Sectors: Propositions and Early Evidence," In: *The New Institutionalism in Organizational Analysis*, W. W. Powell and P. J. DiMaggio, eds., University of Chicago Press, Chicago, 108-140.
- Scott, W. R., Ruef, M., Mendel, P. J., and Caronna, C. A., (2000) *Institutional change and healthcare organizations: From professional dominance to managed care*, University of Chicago Press, Chicago.
- Taylor, J. E., Dossick, C. S., & Garvin, M. J., (2009) "Constructing Research with Case Studies," *The 2009 Construction Research Congress: Building a Sustainable Future*, Seattle, WA.
- UNECE. (2007). *Guidebook on promoting good governance for Public-Private Partnerships* New York: United Nations Economic Commission for Europe.
- Yescombe, E. R. (2007). *Public-private partnerships: principles of policy and finance*: Butterworth-Heinemann.
- Yin, R. K., (2003) *Case study research: design and methods*, New York: Sage.
- Zhang, X. (2005). Critical success factors for public-private partnerships in infrastructure development. *Journal of Construction Engineering and Management*, 131, 3.

**APPENDIX A
PROJECT DATA**

British Columbia Project Data

Project	Government Institution	PPP type	Asset type	Business case start date	RFQ release date	RFP release date	Number of bidders	Date of Financial Close	Date of constr comp	Contract duration / Operating term	Project Value (USD)
Sierra Yoyo Desan Road	Ministry of Energy and Mines	DBFOT	Road	Jun-02	Jul-03	Sep-03		Jun-04	Dec-05	16 years	\$38,600,000
Gordon and Leslie Diamond Health Care Centre	Ministry of Health	DBFM	Hospital	N/A	Oct-02	Jan-03		Jun-04	Oct-06	32 years	\$91,675,000
Abbotsford Regional Hospital and Cancer Centre	Ministry of Health	DBFM	Hospital	N/A	Jan-03	Sep-03		Jul-04	Aug-08	30 year	\$342,575,000
Britannia Mine Water Treatment Plant	Ministry of Agriculture and Lands	DBFOT	Water Treatment Plant	Oct-03	Jan-04	May-04		Nov-04	Jun-06	20 years	\$14,475,000
William R. Bennett Bridge (okanagan)	Ministry of Transportation,	DBFM	Road	Aug-03	Dec-03	Jun-04		Jun-05	May-08	30-year	\$138,960,000
Charles Jago Northern Sport Centre	City of Prince George, University of Northern British Columbia	Design-Build partnership	Sports Center	Oct-04	Jun-05	N/A		Apr-06	Sep-07	N/A	\$27,985,000
Kicking Horse Canyon (Phase 2)	Ministry of Transportation	DBFOT	Road	Feb-04	Jul-04	Oct-04	2	Oct-05	Jan-08	25-year contract	\$125,450,000
Residential Care & Assisted Living Capacity Initiative	Ministry of Health	DBFM	Hospital	N/A	N/A	Jun-06		Jun-06	Sep-08	20 year	\$202,650,000
Sea-to-Sky Highway Improvement Project	Ministry of Transportation and Infrastructure	DBFOT	Road	Jul-03	Jun-04	Sep-04		Mar-05	Apr-09	25-year	\$579,000,000
Canada Line	GoC, BC MoT, Vancouver Transp Auth, City of Vancouver, Vancouver Airport	DBFOT	Rapid rail	Apr-03	N/A	Aug-03	4	Jul-05	Aug 09	35-year	\$1,833,500,000
Golden Ears Bridge	TransLink (Greater Vancouver Transportation Authority)	DBFOT	Road	N/A	Oct-03	Jan-05	3	Mar-06	Jun-09	35.5-year	\$779,720,000
Pitt River Bridge & Mary Hill Interchange Project	Ministry of Transportation and Infrastructure	Design-Build	Road	N/A	Feb-06	Aug-06	2	Jan-07	Nov-09	N/A	\$191,070,000
Surrey Outpatient Hospital	Ministry of Health Services	DBFM	Hospital	Jan-06	Mar-07	Sep-07	2	Aug-08	Mar-10	30 year	\$230,731,500

Royal Jubilee Hospital Patient Care Centre Project	Ministry of Health Services	DBFM	Hospital	N/A	May-07	Sep-07	3	Jul-08	Under construction	30-year	\$336,399,000
Kelowna and Vernon Hospitals Project	Ministry of Health Services	DBFM	Hospital	Oct-06	May-07	Sep-07	3	Aug-08	Under construction	30 years	\$417,748,500
Port Mann/Highway 1 Project (PMH1)	Ministry of Transportation and Infrastructure	Design-Build	Road	N/A	May-07	Aug-07		Feb-09	Under construction	N/A	\$2,373,900,000
Fort St. John Hospital Project	Ministry of Health Services	DBFM	Hospital	Oct-06	May-08	Oct-08	2	Jul-09	Mar-11	30 years	\$287,473,500
South Fraser Perimeter Road Project	Ministry of Transportation and Infrastructure	DBFOT	Road	Jan-08	Jul-08	Apr-09	3	May-10	May-13	20 year	\$506,625,000
BC Cancer Agency's Centre for the North Project	Ministry of Health Services	DBFM	Hospital	Oct-07	Jul-08	Apr-09	3	Dec-09	Dec-12	30 years	\$102,097,000

Victoria Project Data

Project	Government Institution	PPP type	Asset type	Date of initial public announcement	EOI release date	RFP release date	Number of bidders	Date of Financial Close	Date of constr comp	Contract duration / Operating term	Project Value (USD)
County Court	Department of Justice	DBFM	Courthouse	Sep-97	Sep-97	Jun-98	3	Oct-00	May-02	20 years	\$175,500,000
Wodonga Wastewater Treatment Plant	North East Region Water Authority	DBOT	WWTW	Oct-00	Apr-00	Sep-00	4	Dec-00	Jul-03	10-year term (plus 10 year ext)	\$28,800,000
Southern Cross Station (formerly Spencer Street Station)	Department of Infrastructure	DBFOT (partially)	Train station	Feb-00	Jun-01	Oct-01	3	Jul-02	Jul-06	30 years	\$278,100,000
Docklands Film and Television Studios	Department of Industry, Innovation and Regional Development	DBFOT	Television production studio	n/a	n/a	n/a	n/a	Sep-02	Feb-04	20 years	\$36,000,000
Casey Community Hospital	Department of Human Services	DBFM	Hospital	May-01	Nov-01	Apr-02	3	Nov-02	Sep-04	25 years	\$108,000,000
Campaspe Water Reclamation Scheme (formerly Echuca/Rochester Wastewater Project)	Coliban Water Authority	DBFOT	WWTW	Oct-00	May-99	Nov-00	4	Nov-02	May-05	25 years	\$36,000,000

Mobile Data Network	Department of Justice	DBFM	Telecom/IT system		Aug-99	Feb-02	1	Jun-03	Dec-05	5 years	\$126,000,000
Victorian Correctional Facilities	Department of Justice	DBFM	Prison	Nov-01	Jun-02	Oct-02	3	Dec-03	Apr-06	25 years	\$247,500,000
Metropolitan Mobile Radio (MMR)	Department of Justice	DBFM	Telecom/IT system	May-02	Nov-02	Aug-03	3	Mar-04	N/A	7 years	\$108,000,000
Emergency Alerting System	Department of Justice		Telecom/IT system	Jan-02	Jul-02	Sep-02	4	Jun-04	N/A	7 years	\$90,000,000
EastLink	Department of Transport	DBFOT	Road	Sep-02	May-03	Oct-03	2	Oct-04	Jun-08	39 year	\$2,250,000,000
The new Royal Women's Hospital Project	Department of Human Services	DBFM (only soft FM)	Hospital	Oct-03	Nov-03	Apr-04	3	Jun-05	Jun-08	25 years	\$327,960,000
Royal Melbourne Showgrounds Redevelopment	Department of Primary Industry	DBFM	Tourism complex	Dec-04	Oct-03	Apr-04	3	Jun-05	Dec-06	25 years	\$97,200,000
Ballarat North Water Reclamation Project	Department of Sustainability & Environment	DBOT (not sure who finances)	WWTW	May-02	May-05	Aug-05	3	May-06	Jan-08	15-year	\$45,000,000
Melbourne Convention Centre Development	Department of Industry Innovation and Regional Development	DBFM	Urban complex/ Exhibition center	Oct-04	Oct-04	Mar-05	3	Feb-06	Jul-09	25 years	\$330,300,000
Barwon Water Biosolids Management Project	Department of Sustainability & Environment	DFBOT	WWTW	Sep-07	May-05	Oct-05	2	Aug-07	Dec-09	20 years	\$36,000,000
The new Royal Children's Hospital project	Department of Human Services	DBFM	Hospital	Nov-05	May-06	Oct-06	3	Nov-07	Mar-11	25 years	\$851,400,000
Partnerships Victoria in Schools Project	Department of Education and Early Childhood Development	DBFM	Schools	Dec-07	Feb-08	May-08	3	Dec-08	Jul-10	25 years	\$229,500,000
Peninsula Link (previously the Frankston Bypass Project)	Department of Transport	DBFOT (availability payments)	Road	Mar-09	Mar-09	Jun-09	3	Feb-10	Feb-13	25 years	\$683,100,000
Ararat Prison Project	Department of Justice	DBFM	Prison	Jul-08	Mar-09	Jul-09	3	Jun-10	Nov-12	25 years	\$315,000,000
Biosciences Research Centre project	Department of Primary Industries in joint venture with La Trobe University	DBFM	Research center	Dec-07	May-08	Aug-08	3	May-09	Dec-11	25 years	\$207,000,000

Victorian Desalination Plant	Department of Sustainability and Environment	DFBOT	Desalination plant	Sep-07	Jun-08	Sep-08	2	Sep-09	Feb-11	30 years	\$2,790,000,000
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South Africa Project Data

Project	Government Institution	PPP type	Asset type	First appear on PPP list	EOI release date (TA IIA)	RFP release date	Number of bidders	Date of Financial Close (TA III)	Date of constr comp	Contract duration / Operating term	Project value (USD)
Inkosi Albert Luthuli Hospital	KwaZulu-Natal Dept Health	DFBOT	Hospital	Jun-01				Dec-01		15 years	\$642,857,143
Eco-tourism Manyeleti 3 sites.	Limpopo Dept Finance, Economic Affairs, Tourism	DFBOT	Tourism complex	Jun-01				Dec-01		30 years	\$3,571,429
Universitas and Pelonomi Hospitals co-location	Free State Dept Health	DFBOT	Hospital	Jun-01				Nov-02		16,5years	\$11,571,429
Information Systems	Department of Labour	DFBOT	Telecom/IT system	Jun-01				Dec-02		10 years	\$214,285,714
State Vaccine Institute	Dept Health	Equity partnership	Laboratory	Jun-01	Jun-01	Jun-01	2	Apr-03		4 years	\$8,571,429
Chapman's Peak Drive toll road	Western Cape Dept Transport	DF(part)BOT	Road	Jun-01	Mar-01	Jul-01	4	May-03		30 years	\$64,285,714
Humansdorp District Hospital	E/Cape Dept Health	DFBOT	Hospital	Jun-01	Jun-02			Jun-03		20 years	\$2,700,000
DTI Head Office Accommodation	Dept of Trade & Industry	DFBOT	Offices	Jun-01	Aug-01	Dec-01		Aug-03		25 Years	\$124,285,714
Cradle of Humankind Interpretation Centre Complex	Gauteng Dept Agriculture, Conservation, Environment and Land Affairs	DBOT	Tourism complex	Dec-01		Mar-02	4	Oct-03		10 years	\$5,571,429
Gautrain Rapid Rail Link	Gauteng Dept Public Transport, Roads & Works	DBFOT	High speed rail	Jun-01	Mar-02	Nov-02	2	Sep-06	Jun-11	20 years	\$3,298,571,429
Western Cape Rehabilitation Centre & Lentegeur Hospital	Western Cape Dept Health	Facilities Management	Hospital	Dec-02	Apr-04	Sep-05		Nov-06			\$47,714,286
Polokwane Hospital Renal Dialysis Unit	Dept Health	DBOT	Hospital	Mar-04	Dec-04	Sep-05		Dec-06	Oct-07	10 years	\$12,621,429
Dept. of Education Serviced Head Office Accommodation	Dept. of Education	DBFOT	Offices	Jun-01				Apr-07	Ongoing	27 years	\$73,180,571

Port Alfred & Settlers Hospital	Eastern Cape Dept of Health	DBFOT	Hospital	Mar-04	Nov-04	Mar-05		May-07	Feb-07	17 years	\$24,085,714
De Hoop Eco Tourism PPP	Western Cape Nature Conservation Board	DBFOT	Tourism Complex	Jun-01	Dec-02	Oct-02		Dec-08	Ongoing	30 years	\$5,714,286
Foreign Affairs Head Office Accommodation	Department of Foreign Affairs	DFBOT	Offices	Jun-01	Nov-04	Sep-05		Jan-09		30 years	\$188,571,429
Western Cape Nature Conservation Board (Whale Trail)	Western Cape Nature Conservation Board	DBFOT	Tourism Complex	Aug-05		Jan-07		Apr-10	Ongoing	20 years	\$4,142,857

APPENDIX B
NEWSPAPER ARTICLE SELECTION AND CODING PROTOCOL

PROTOCOL FOR FACTIVA EVENT SEARCH AND CODING

This section discusses the protocol and methodology that I followed to obtain event information, and to determine the public opinion of PPPs in the three Case Study regions.

Purpose and event definition

The purpose of this analysis was to obtain a quantitative assessment of the public opinion of PPPs in each of our case study regions (South Africa, British Columbia and Victoria). It was decided that articles published in local news sources would provide a good proxy for the general local understanding and opinion of the PPP concept. Each such article is considered a codable event, providing an indication of the understanding and opinion of PPPs at a point in time. These articles are related to the public opinion in two ways: they both reflect the current understanding and opinion, and inform the future understanding and opinion of the concept. Events might therefore have a slight lag in time, suggesting that a monthly timescale might be preferred over a daily one.

Database

For the event search, the Dow Jones Factiva database was used. Factiva provides access to more than 20,000 news sources. This was supplemented with articles drawn from the LexisNexis database to provide a more complete set of event data. Articles from both data sources were compared to ensure no duplication.

Search terms

A number of searchable terms were considered to obtain the event data. The combination term “*public private*” and its reverse “*private public*” (both enclosed in double quotes) was found to be the most reliable event indicator. Acronyms such as *PPP* and *P3* (a term often used in Canada) produced a large number of erroneous results because these terms are often used in other contexts¹². The most complicated decision was on the inclusion of the term *partnership* (or *partnerships*). A number of search tests indicated that inclusion of these terms would discard a significant number of events (where “*public private*” was used in conjunction with terms such as *initiative*, *development*, *business-model*, and *arrangement*).

Source Publications

As mentioned above, the source of events is local news sources in each of the three regions. The publications used in each region were as follows:

- **British Columbia:** BC Business, Equity, Vancouver Province, Vancouver Sun, and Victoria Times Colonist; plus from LexisNexis: Times Colonist and Vancouver Province (additional dates), Nelson Daily News, Northshore News, Abbotsford times
- **South Africa:** Business Day, Cape Argus, Cape Times, Daily Dispatch, Daily News, East Cape News, Financial Mail, The Herald, Mail & Guardian Online, The Mercury, Post, Pretoria News, Pretoria News Weekend, SAPA (South African Press Association), Saturday Star, Rand Merchant Bank Economic Report, Southscan, Sowetan, The Star, Sunday Independent, The Sunday Times,

¹² A search for P3 and infrastructure produced only five additional results (excluding the terms “public private” and “private public”) from Canadian sources and was therefore not included.

Sunday Tribune, Sunday World, The Independent on Saturday, Weekend Argus, Weekend Post

- **Victoria:** The Age, Bayside Leader, Bendigo Advertiser [Bendigo], Berwick/Pakenham Cardinia Leader, Border Mail [Albury Wodonga], The Courier [Ballarat], Cranbourne Leader, Diamond Valley Leader, Frankston Standard/Hastings Leader, Free Press Leader, Geelong Advertiser, Geelong News, Herald-Sun, Knox Leader, Maroondah Leader, Melbourne/Yarra Leader, Melton/Moorabool Leader, Progress Leader, Shepparton News, Sunday Age (Melbourne), Sunday Herald Sun Magazine, Sunday Herald Sun, The Weekly Times, Wyndham Leader

Coding Protocol for Event Data

The coding process was followed the following protocol steps:

- I. Determine whether the article contains a codable event (CODABLE)
 - a. Before beginning to code events, coders should know how to identify what is classified as an event. The article will be considered a codable event if any of the reference sentences refers to the concept of public private partnerships.
 - b. In addition, the event is only codable if the event refers to the region under investigation: South Africa, Canada, or Australia. Where an article refers to a PPP development in a different country, the event is considered codable if the reference is tied to so local context, for example if a reference to PPPs in Britain is used to substantiate their use in Canada.
 - c. Events that are found in Company Financial Statements are not considered codable.
 - d. We will work at the article level, as most articles contain only one references sentence. However, if we identify more than one divergent view expressed in an article (both positive and negative affect), we code each of the views expressed separately.
 - e. Some of the articles from LexisNexis are letter published in the specific paper. As we have not searched for letters in all publications (not available in the Factiva database) we exclude any articles that are letters.
 - f. For the sake of completeness we will not exclude events that refer to PPPs outside the field of infrastructure development.
- II. Record each of following data fields for the article
 - a. RDAY. Locate the day of the report in the byline or other header text.
 - b. RMONTH. Locate the month of the report in the byline or other header text.
 - c. RYEAR. Locate the year of the report.
 - d. NEWSSOURCE NAME. Note the specific name of the news source (e.g., New York Times, Market Wire, ...).
 - e. SENTENCE. Provide the full text of the sentence that includes the event. Separate sentences with // in the case of more than one event sentence per article.
 - f. OP-ED/NEWS. Indicate whether the article is an Editorial or a News piece
 - g. INDIRECTREPORTER. In cases where the news source lists a third party individual as the source for the news, identify this entity. “Jim Jones, CEO of Greenpeace today announced that XYZ Corporation spilled toxic materials into the river.” The INDIRECT REPORTERTITLE field should equal Jim Jones, CEO of Greenpeace.

- h. REPGROUP. Indicate to which type of organization the reporter or indirect reporter belongs. Examples include local government, Union, NGO, and Private business.
- i. INDIRECTSECTOR. In cases where the news source lists a third party organization as the source for the news, identify this entity. For example, in the sentence “Jim Jones of Greenpeace today announced that XYZ Corporation spilled toxic materials into the river.” The INDIRECTSECTOR field should equal Civic. Other types are: Government, Private. These can be classified using the following reference system:
 - i. Government: All governmental agents including
 1. Ministers
 2. Governor
 3. Cabinet members
 4. Advisors/Staff members
 5. Regulatory agencies and staff
 6. Legislative actors
 7. Judicial actors
 8. Military
 - ii. Private
 1. All economic organizations
 2. Firms
 3. Buyers,
 4. Suppliers, competitors, complementors
 5. Private Financial Institutions (Banks, Pension funds, etc.)
 6. Associations of firms and Industry-based interests
 7. Media
 - iii. Civic
 1. Local community organizations
 2. NGOs organized around a specific issue (e.g., environment, governance, rights, ...)
 3. Associations of individuals with common identity (e.g., religion, ethnicity, heritage, values, customers/users)
 4. Unions
 5. Other actors or organizations, such as Workers, Professors/teachers, and Students
 6. Political Parties, Politicians, and Candidates
- j. PPPPROJECT. Identify the specific PPP project to which the event refers. Examples would include Royal Jubilee Hospital, or SR-91 Highway. If the event does not apply to a specific project, then the PPPPROJECT should equal Industry.
- k. PPPSECTOR. Identify the infrastructure sector that the event applies to. The list of sectors includes: Transportation, Water and Wastewater, Energy, Telecoms, Health, Prisons, Schools, Courthouses, Offices, Other (other infrastructure projects), and Non-infrastructure (if the event refers to something other than infrastructure)
- l. AFFECTVALUE. Identify the level of affect that the event has towards the concept of Public Private Partnerships. AFFECTVALUE can be one of three values: Negative (-1), No affect (0), Positive (+1). The AFFECTVALUE should only reflect an affect towards the concept of PPPs, and not towards specific projects only – if the event does not clearly tie the positive or negative affect to the concept of PPPs, then the

AFFECTVALUE is 0. For example, an event that describes the death of a worker on a specific PPP project will only be coded -1 if the author (or INDIRECTREPORTER) making the connection (clearly or just alluding thereto) between this bad event and the project being a PPP.

Replication analysis

To ensure the replication of the coding process, a section of the events (approximately one quarter of all the sourced articles) were independently coded by another coder, and the results compared. The results of the comparison of these two coding sets are summarised in the Table below:

Statistic	Value
Total number of events compared	1014
Number of similarly coded events	256
Percentage similarity	75%
Number of articles that differ on CODABLE	50
Number of articles that differ on AFFECTVALUE	206

The independent coding was therefore exactly the same in 75% of the events.

APPENDIX C
SURVEY RESPONSE DETAILS

Table 11 – Results of survey on the extent to which program development tasks have been fulfilled

No	Broad action	Detailed task needed to develop a successful PPP program	British Columbia	Victoria	South Africa
1	Develop supportive legal framework and apply consistently	Establish a clear legal and regulatory framework	3.20	3.60	3.38
		Apply framework and policies consistently	2.60	3.30	3.13
		Standardize contracts and documents	2.80	2.50	3.00
		Ensure that policies are able to accommodate change	2.60	3.00	2.63
		Consult the public and the market in policy development	2.20	3.10	2.88
		Develop legal capacity to handle PPPs (train lawyers and judges)	3.00	3.20	2.50
2	Provide political commitment	Provide high level political commitment to the PPP program	3.60	3.10	2.50
		Political risk management through advocacy within the government	3.00	3.00	2.13
3	Improve public sector knowledge of PPPs	Provide training to public sector staff	2.60	2.70	2.38
		Communicate lessons learnt to governmental actors	2.40	2.60	1.75
		Publish guidance materials to help public sector organizations	2.40	3.40	2.88
		Ensure that governmental agents understand the objectives of private finance	2.40	2.70	2.13
		Develop pilot projects	3.00	2.50	2.25
4	Increase public awareness and understanding of PPPs	Increase public awareness and understanding of PPPs	2.00	2.20	1.75
		Communicate lessons learnt to civic actors	2.00	2.10	1.75
		Inform citizens of their right to participate on project developments	2.00	1.90	1.75
		Gain buy-in from key constituents (e.g. unions) for PPPs	1.80	2.50	1.75
5	Develop and support market of private providers	Take actions that attract private investment, e.g developing the domestic capital market	2.60	2.80	2.75
		Take actions that sustain state credibility	2.60	3.30	2.75
		Ensure a stable political environment	2.80	3.80	2.63
		Publish guidance materials for the benefit of private sector	2.40	3.20	3.00
		Involved private providers to influence project structure, size, scope	2.80	3.00	2.88
		Reduce cost and duration of procurement	2.20	2.70	1.88
		Provide support to private providers through loans, guarantees, etc.	2.20	2.40	2.25
		Ensure “even-handed” regulation (i.e. avoid over regulation)	2.60	2.90	2.50
6	Coordinate deal flow	Coordinating deal-flow to avoid a “bunching” of projects	2.40	2.10	2.00
		Communicate upcoming projects to market	2.20	3.00	3.13
		Coordinating public-sector “buying power”	2.20	2.10	1.88

Table 11 – Results of survey on the extent to which program development tasks have been fulfilled (cont)

7	Improve program transparency	Have transparency in project development (e.g. options analysis)	2.80	2.60	2.63
		Increase procurement transparency (share information during/after the bidding phase)	3.20	2.60	2.63
		Make sure the public are well informed regarding project details	3.20	3.00	2.38
8	Increase program accountability	Keep the PPP program accountable of its performance	3.00	3.00	2.63
		Incorporate user feedback in performance measures	2.20	2.40	2.13
		Make use of performance specifications on PPP projects	3.40	2.90	3.38
9	Independent oversight of project execution	Have independent oversight of procurement	2.80	3.50	2.75
		Provide for independent oversight of performance monitoring (and publish results)	1.80	2.60	2.25
10	Ensure quality of projects, with adequate level of risk transfer	Identify the most suitable projects and execute them in a way that takes local context into account	3.00	3.20	2.75
		Select strong private consortia for projects	3.20	3.60	3.38
		Ensure good project and contract management on all projects	3.00	2.80	2.75
		Provide clear contract clauses for “step-in” rights	3.20	3.60	3.38
		Assess VfM when selecting a delivery system	3.40	3.60	3.25
		Identify all risks early in the project	3.20	3.40	3.25
		Transfer optimum level of risk to the private partner	3.00	3.30	3.25
Be willing to mitigate or retain some risk	3.00	3.30	3.00		
11	Keep Line Agency discretion in check	Prevent line agencies from making unrealistic commitments on behalf of government	3.00	3.50	3.13
		Ensure quality of project development by line agencies	3.00	3.30	2.63
12	Provide project specific support to line agencies	Establish a PPP unit to facilitate the process, provide leadership in the PPP program	4.00	3.60	3.50
		Provide technical advice and support on specific projects	3.40	3.20	3.25
		Provide line agencies with funding for hiring of private consultants	3.00	3.20	2.63
		Hire external advisors where necessary to fill the skill gap	3.20	3.00	2.88
13	Ensure that PPP projects improve the public interest	Define how PPPs can promote the “public interest”	2.80	2.80	2.50
		PPP Policy should have clear economic and social objectives	2.80	3.20	2.63
		Ensure equity in access to all citizens (e.g. through subsidies)	2.25	2.50	2.75
		Allow for adequate stakeholder consultation	2.80	3.20	2.88
		Ensure that private provider complies with H&S requirements	3.00	3.10	3.50

Table 11 – Results of survey on the extent to which program development tasks have been fulfilled (cont)

14	Ensure fairness of PPP procurement	Follow recognized procurement practices to avoid corruption	3.40	3.90	3.25
		Use neutral and fair selection and award criteria	3.40	3.90	3.50
		Ensure that PPP unit retains neutrality and independence from private sector	3.40	3.80	3.57
		Monitor behavior of private providers to prevent unfair competition, bribes, etc.	2.60	3.60	2.88
		Provide an avenue for complaint to an independent tribunal	2.20	3.40	2.38
15	Improve environmental performance of projects	Ensure that projects are delivered in an environmentally sensitive way	2.80	3.20	2.75
		Include specific (but realistic) “green” objectives in bid criteria	2.60	3.30	2.25
		Carefully review green claims made by bidders	2.60	2.90	2.38
		Include green performance in payment mechanisms	2.40	2.50	1.75
AVERAGE			2.76	3.02	2.67