Accelerating Job Creation in California Through Infrastructure Investment

Opportunities for Infrastructure Asset Formation and Job Creation Using Public-Private Partnership Procurement Methods

A Bay Area Council Economic Institute White Paper
January 2012

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Acknowledgements

This paper has been produced by the Bay Area Council Economic Institute in order to catalyze a stronger focus on the opportunities for job creation in California through infrastructure investment, and through public-private partnerships in particular. Peter Luchetti (Managing Partner, Table Rock Capital, and a member of the Bay Area Council Board of Trustees) and Sean Randolph (President & CEO, Bay Area Council Economic Institute) developed the core analysis. Jon Haveman (Chief Economist, Bay Area Council Economic Institute) contributed to the evaluation of employment impacts. Ignacio Barandiaran (Head of Transaction Advice, Arup Americas), Mark Whiteley (Principal, Cannon Design), Peter Shaw (Managing Associate, SNR Denton UK), Ian Parker (Managing Director, Public Sector and Infrastructure Banking, Goldman Sachs), Jimmy Hester (McKinsey & Company), Tyler Duvall (McKinsey & Company), and Dale Bonner (Founding Principal, Cal-Infra Advisors and former Secretary, California Business, Transportation and Housing Agency) provided independent commentary that informed the analysis.

The Bay Area Council Economic Institute

The Bay Area Council Economic Institute is a partnership of business with labor, government, higher education and philanthropy, that works to support the economic vitality and competitiveness of the Bay Area and California. The Association of Bay Area Governments is a founder and key institutional partner. The Economic Institute also supports and manages the Bay Area Science and Innovation Consortium (BASIC), a partnership of Northern California's leading scientific research universities and federal and private research laboratories. Through its economic and policy research and its many partnerships, the Economic Institute addresses major issues impacting the competitiveness, economic development and quality of life of the region and the state, including infrastructure, globalization, science and innovation, energy, and governance. A public-private Board of Trustees oversees the development of its products and initiatives.

Part I

Introduction

In 2006, the Bay Area Council Economic Institute started exploring the global success of public-private partnership (P3 or PPP) methods of infrastructure procurement and investment aimed at augmenting and improving the performance of established public procurement processes. Over the last five years, the Economic Institute has published three white papers aimed at stimulating discussion in California around how the state should adopt global best practices and improve the performance and productivity of new and existing infrastructure assets:

- *Investing in California's Infrastructure: How to Ensure Value for Money and Protect California's Competitive Position in the National and Global Economy* (2006)
- *Public-Private Partnerships: Alternative Procurement Methods for Campus Development in the University of California System* (2010)
- *Framework Conditions for Foreign and Domestic Private Investment in California's Infrastructure: Seizing the P3 Opportunity* (2010)

These papers encapsulate a large body of knowledge and insight into global infrastructure best practices, while focusing on the particulars of the unique environment, challenges and opportunities in California. The purpose of this update is to focus on the infrastructure asset formation dialogue as a vehicle for stimulating near- and long-term job growth and maximizing productivity in infrastructure assets.

Infrastructure investment and alternative methods of infrastructure finance are getting serious attention at the federal level. In its September 2011 Interim Report, the President's Council on Jobs and Competitiveness (www.jobs-council.com) focuses on both the job-creation potential of infrastructure and the importance of public-private partnerships. It cites findings by the Federal Highway Administration and the Council of Economic Advisers that each additional $1 billion of government infrastructure spending creates between 4,000 and 18,000 jobs, most of which are middle class (i.e., between the 25th and 75th percentile of wage distribution.) It also cites analysis by Moody's showing a multiplier effect on GDP of $1.59 for every $1.00 invested in infrastructure. Citing the small scale of direct private investment in infrastructure projects in the United States compared to other countries, the Commission recommends the creation of a national infrastructure financing facility (a National Infrastructure Bank) to complement existing programs and attract private capital.

One challenge relates to defining the scope of infrastructure investment. In the U.S., the conversation has been transportation-centric, while around the world the infrastructure agenda has been much broader, covering a range of assets including transportation, energy, social infrastructure (education, healthcare, public safety, courts), water and waste water, and communications.

Infrastructure investment is a key pillar of growth and, in an economic downturn, is especially important to job creation and economic recovery. Investment in infrastructure creates jobs and improves productivity, global competitiveness, and the quality of life for Californians. However, California has made, at best, very modest progress at improving infrastructure investment and asset formation; it is not keeping pace with investment in comparable economies, nor is it fully aligned with global best practices. This was the consensus of construction professionals who gathered at a recent conference in Washington, D.C.: Canada is widely perceived as being a decade ahead of the U.S. in P3 delivery of major highway and public works projects.[1] Similar advanced conditions exist in Australia and the U.K. Other U.S. states are also more advanced than California in this area. The state of Virginia, for example, has just executed its second High Occupancy Toll (HOT) Lane project using P3 methods.

[1] P3 Experts Point to the Canadian Experience. (November 28, 2011). Engineering News Record.

Part II

P3 – An Opportunity for Job Creation at Scale

As California confronts a sustained budget crisis and high unemployment, the quality and state of repair of its infrastructure does not correspond to its population density or the size of its economy. The state's population exceeds 37.3 million and its economy ranks 7th globally when measured by GDP.[2] The last large-scale investment in California's infrastructure occurred in the 1950s and 60s and was predicated on a projected population of approximately 20 million Californians. California's population is now projected to reach 60 million by 2050. Despite the approval by voters of $42.7 billion in infrastructure bonds in 2006, much of this money still has not been committed or spent. Equally significant, the methods for allocating those funds do not maximize resource efficiency and value creation for the public.[3]

In 2006, the Bay Area Council Economic Institute calculated that California has an unfunded infrastructure shortfall of

[2] U.S. Census 2010

[3] *Investing in California's Infrastructure: How to Ensure Value for Money and Protect California's Competitive Position in the National and Global Economy*. (June 2006). Bay Area Economic Forum.

between $527 billion and $737 billion. Consistent with that finding, the Nicholas Berggruen Institute puts the state's infrastructure deficit at $765 billion.[4]

Jobs and infrastructure development are linked. Calculations by the Bay Area Council Economic Institute for construction of new non-residential structures in California indicate that $1 billion in infrastructure investment creates approximately 13,468 jobs.

Millions of Jobs Created per Billion Dollars of Infrastructure Investment

	$250 Billion Investment	$500 Billion Investment	$750 Billion Investment
Direct Jobs Created	1.7 million	3.3 million	5.0 million
Indirect Jobs Created	0.7 million	1.3 million	2.0 million
Induced Jobs Created	1.0 million	2.1 million	3.1 million
	3.4 million	6.7 million	10.1 million

Source: Bay Area Council Economic Institute calculations

[4] *A Blueprint to Renew California: Report and Recommendations Presented by the Think Long Committee for California.* (November 2011). Nicholas Bergguen Institute.

This suggests the strong potential of infrastructure investment as a vehicle for job creation in the state. Infrastructure investment of between $250 and $750 billion could create an estimated 3.4 million to 10.1 million jobs.

California currently has an unemployment rate of 12.1% which translates to 2,175,000 unemployed.[5] If the state were to succeed in accessing the resources required to support large-scale infrastructure investment rivaling the 1950s and 1960s it could create an estimated 3.4 to 10.1 million jobs in a span of 10 years and attain a major upgrade to its infrastructure lasting more than 50 years.

In evaluating job creation and employment impacts, it is important to assess the state's capacity to absorb this level of job creation. At its peak (February 2006), construction employment in California was 945,000. Currently it is 566,000, reflecting a 40% decline. An infrastructure program of $500 to $750 billion spread over 10 years would create direct construction employment in the range of 334,000 to 501,000 jobs annually. This is sufficient job creation to eliminate construction unemployment within one year and to maintain full employment in the sector for the full 10 year period. In addition to creating direct employment in construction, the investment

[5] News Release 11-70. (September 16, 2011). State of California Employment Development Department.

program is expected to create 133,000 to 195,500 in indirect employment and 206,200 to 309,300 in induced employment. Taken together, a total of 673,000 to 1,010,100 new jobs per annum would be created under a program of the proposed size. If this level of job creation is realized, California's unemployment rate would fall from 12.1% in August 2011 to between 6.48% and 8.35% within one year.

While it is conceivable that California could absorb the level of job creation implied by a $500 to $750 billion infrastructure investment program spread over 10 years, there are a number of key observations and considerations that should be borne in mind when interpreting this analysis:

- As the upper boundary of job creation potential is approached, total jobs created are likely to exceed the peak level of construction employment attained in February 2006. Since it is likely that a number of eligible construction workers either left the state or switched occupations during the recession, there may be a job import effect from outside the state (i.e., qualified candidates from other states would move to California to compensate for a local shortage of available skilled workers). Even if this were to occur, the projected level of job creation from indirect and induced employment would still be expected to occur, netting a benefit to the state as new imported workers become California tax payers.
- There are geographic imbalances in the supply and demand for labor within the state. Job creation resulting from the proposed level of investment may therefore be lower in counties where unemployed construction workers don't currently reside, or where fewer infrastructure projects are likely to be built. Workers in the construction trades, however, have traditionally been more mobile than other sectors of the workforce.
- Infrastructure construction typically requires a higher level of training and experience than residential construction. While this could be an issue, the University of California, state university system and community colleges all provide varying levels of academic and vocational and job training programs. There is ample time to ramp up workforce training programs over the 10 year life of the proposed infrastructure investment program.

Part III

Developing Metrics for Infrastructure Investment

This paper focuses on the need for action in three key areas that can accelerate infrastructure investment and job creation:

1. **Project Process**

   Establish a concise basis for benchmarking the pace, volume, and productivity of infrastructure investment with a focus on private capital as a driver. Specific metrics should include:

   Project Selection

   - Community impact from an economic, environmental, and quality of life perspective;
   - Long term impact on productivity, performance, and global competiveness;
   - Contribution to long-term growth of the California economy;

   Best Method of Procurement

   - A mandatory "comparator" that requires use of the best method of procurement—based on timing, productivity, Value for Money (Vfm) and overall quality of outcome;
   - Application of multiparty funding methods that expand access to sources of capital;
   - Maximization of job creation potential;

   Tracking Results and Outcomes

   - Quantification of improvements in timing and cost savings;
   - Job creation;
   - Quantitative and qualitative performance measures defining project sponsor and beneficiary satisfaction.

2. **Administrative Alignment**

   Short list the immediate actions that should be undertaken to enable the fastest possible implementation of a major infrastructure program in the state aimed at creating jobs on the scale indicated above over the next 5 to 10 years. There are over 500 agencies, departments, and commissions in California.[6] Many of these will need to be engaged in advancing such a program. Past efforts to advance the infrastructure agenda in California have failed to effectively coordinate the many layers of decision making and bureaucracy that define the project management and investment environment. One of the key drivers of the P3 approach is to improve the timing, life-cycle cost, and

[6] http://www.ca.gov/CaSearch/Agencies.aspx

productivity for a wide range of infrastructure projects. Accomplishing these objectives will require streamlining and reforming the current procurement process—something that past efforts and legislation have not addressed. While this is a challenging prospect, the current situation in California offers a world-class opportunity for reform. The authors believe that the full scope of this topic should be addressed in a separate and more in-depth analysis aimed at examining how California's processes can be improved.

3. **Public and Private Resources**

The economic and budgetary environment within the state, taking into consideration a wide range of revenue sources at the federal, state, and local levels, needs to be managed in a manner that maximizes the availability and utilization of public and private sources of capital for infrastructure investment. It is widely recognized that state as well as federal and local resources are constrained in the current environment. A pessimistic view of the current situation might conclude there is little that can be done. But there are significant resources being dedicated to infrastructure investment. And when viewed against the global template for maximizing revenue via tolls, user fees, targeted tax initiatives, and availability payments, combined with the 15% to 30% life-cycle cost savings that typically results from a successful P3 project, there is enormous capacity to expand investment. Looking at multi-party project financing techniques offers a rich array of possibilities that embody creative risk transfer from the public to the private sector as well as credit-enhancement and pricing mechanisms that result in greater funding capacity. Presently, these methods and techniques are outside the norms of current practice in California. Much work is needed to educate department heads, elected officials, and key decision makers on global best practices, in order to ensure that California is taking advantage of the full range of funding options and is executing on that potential for the benefit of the state and its citizens.

Part IV

The Global P3 Track Record

California does not need to invent a new concept for infrastructure investment to attain the results described above. There are two recent projects in California that illustrate the benefits of the P3 approach: the Long Beach Courthouse sponsored by the Judicial Council of California Administrative Office of the Courts, and the Presidio Parkway sponsored by the California Department of Transportation.

- **Long Beach Courthouse**

  The new Long Beach court building will be the court's main South District courthouse. It is being developed under a 35-year lease-concession P3 approach. Financial analysis indicates that, based on conservative assumptions, a P3 approach would be up to $52 million less expensive to the state than a traditional state-financed construction project. It would also provide a high-quality court facility that contains space to meet the state's future anticipated growth needs, thereby resulting in additional future cost savings. This reflects an approximate 25% savings over estimated project costs using traditional procurement methods.[7]

- **Presidio Parkway**

  This project encompasses the reconstruction of an existing elevated 3.2 mile-long roadway leading up to the Golden Gate Bridge from the Marina District in San Francisco. The state decided to move forward with a P3 approach based on an estimated (pre-bid) 23% cost savings over traditional public procurement. The bidding process resulted in a final bid that was much lower than the estimate, suggesting that the savings is likely to substantially exceed the 23% (pre-bid) estimate.[8]

The major metro areas in California—and Los Angeles and San Francisco in particular—have a number of large scale projects that are ripe for accelerated procurement. These include Los Angeles Measure R projects and transportation projects related to the ports of Los Angeles and Long Beach in the south, and transportation projects under the jurisdiction of the Metropolitan Transportation Commission or related to the Port of Oakland in the north. Add to this the major airports and a robust list of potential projects in the University of California and state university systems, and one begins to form a world-class transportation and education agenda for California. Significant investment is also needed in the healthcare (hospital), communications, and water and wastewater sectors.

[7] *New Long Beach Courthouse: A Performance-Based Infrastructure Court Facility*. (June 9, 2008). Joint Legislative Budget Committee.

[8] *Analysis of Delivery Options for the Presidio Parkway Project*. (January 2010). Prepared by Arup PB Joint Venture.

A recent Arizona State University research paper looked at a range of P3 applications for transportation projects in the U.S. The research studied 12 completed large-scale (greater than $100 million dollars) P3 highway projects in North America, with previous research studies reporting on large-scale Design Bid Build (DBB) or Design Build (DB) highway projects. In the analysis of first generation large-scale highway projects, the P3 delivery method showed a success ratio of over 75% for both cost and schedule containment.[9]

While the P3 experience in the U.S. offers some positive evidence of the effectiveness of this method of procurement, the application of P3s is still relatively new, so the experience is limited. The track record and experience outside of the U.S. is much more developed. With decades of experience in leading western economies, the benefits of P3s are now widely recognized.

[9] Chasey, Allan D., William E. Maddex, and Ankit Bansal. *A Comparison of Public-Private Partnerships and Traditional Procurement Methods in North American Highway Construction*, (November 15, 2011). Arizona State University.

Why P3s? – The Benefits

Benefits to the public sector	☑ Cost effective solution with comparison to Public Sector Comparator (PSC) ☑ Appropriate/optimal risk transfer ☑ Private sector innovation ☑ Optimal whole life-cycle costing ☑ Faster and more efficient procurement process ☑ Ability of undertake more projects without incurring more debt ☑ Deferral of payment over the contract life
Benefits to the private sector	☑ More business opportunities ☑ More room for innovation
Benefits to members of the public	☑ Needs of the public can be met effectively and efficiently ☑ Public interest is protected ☑ Job creation: $1 billion investment creates 13,000 jobs

However, California's infrastructure procurement methods and processes have not been reviewed or modernized in decades. SB 4 (2009) opened the door for the expanded use of private capital and P3 methods for state transportation projects, but it did not create institutional mechanisms that would firmly embed alternative procurement in the state's decision-making processes, nor did it promote investment in other important infrastructure. While California was once a world leader in infrastructure asset formation, the absence of modernization and innovation in recent times leaves it far behind the global best practice standard of performance.

Three excellent global examples of successful infrastructure programs are offered by the U.K., Australia and Canada, which have adopted P3 best practices with impressive results that are well documented following over 20 years of experience with these methods.

Conclusions from U.K. National Audit Office, 2003

The U.K. private finance initiative (PFI) program, which started in 1992, now reflects over 20 years of P3 history, experience and empirical data. The results shown in the table below are from a National Audit Office (NAO) study[10] published in 2003, the 11th year of the U.K. program, which is now passing its 20th anniversary.

Improved Project Delivery Under the Private Finance Initiative

	Previous Experience (Government Delivery)	PFI Experience (P3 Delivery)
Over Budget	73%	22%*
Delivered Late	70%	24%**

* No impact to government except where scope changes

** Only 8% delayed more than 2 months

Source: National Audit Office

Additional research commissioned by HM Treasury also supports the NAO conclusions. The U.K. experience with these improvements in timing and delivery to a budget target offer a key lesson for California.

[10] *PFI: Construction Performance*. (February 2003). Report by the Comptroller and Auditor General. National Audit Office.

Furthermore, interviews with public sector department heads who have implemented P3 solutions show a high level of satisfaction.

Conclusions from HM Treasury, 2003

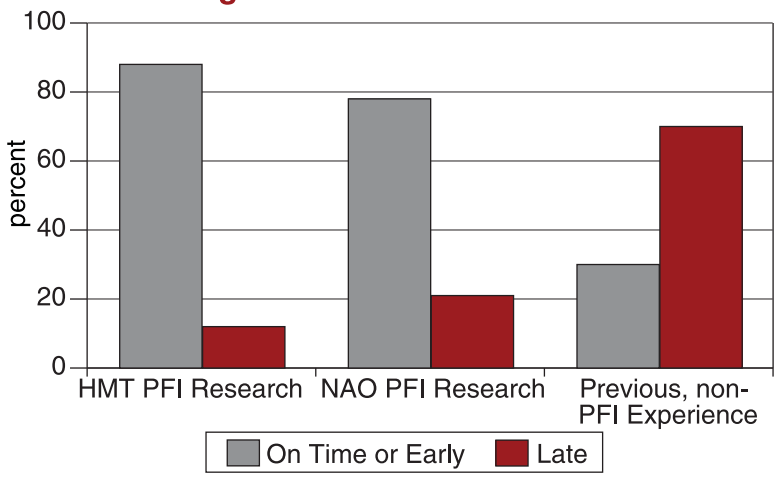
Also published in 2003, HM Treasury research[11] into completed major capital PFI projects found:

- 88% of PFI projects coming in on time or early, with no cost overruns on construction borne by the public sector;
- only 20% of projects experiencing changes to the unitary charge, and all such changes were driven by changes in the requirements of the public sector client;
- operation performance of PFIs meeting with approval from public sector clients.

Research by the National Audit Office also found similar results.

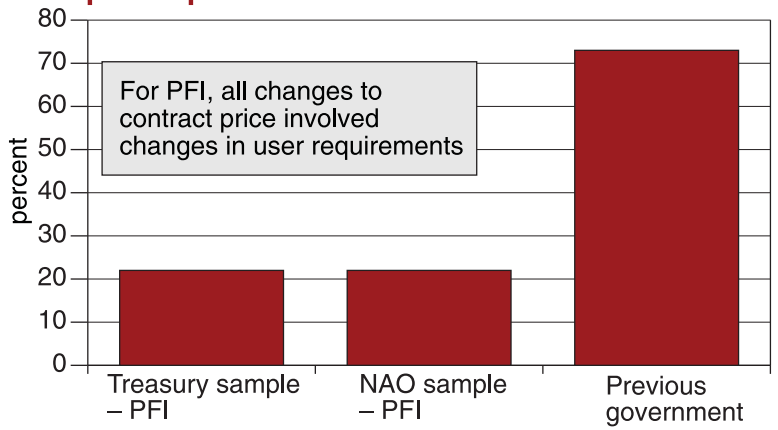
[11] *PFI: meeting the investment challenge*. (July 2003). HM Treasury

Delivering On Time



Source: HM Treasury; NAO: PFI Construction Performance 2002 HC 371, Session February 2002–03; NAO: Modernising Construction, 2001, HC 87, Session 2000–01.

Delivering to budget – price uncertainty in public procurement



Source: HM Treasury; NAO: Modernising Construction, 2001, HC 87, Session 2000–01; NAO: PFI Construction Performance 2002 HC 371, Session February 2002–03.

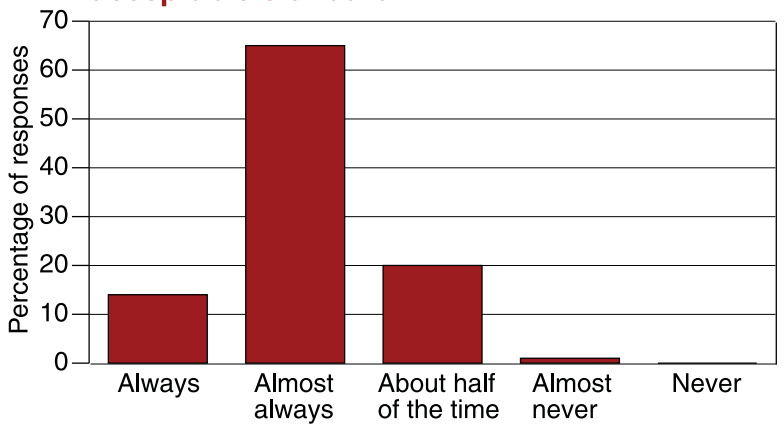
Another major research study[12] conducted in 2006 provides further evidence of the continued success of the U.K. program and offers California additional empirical and qualitative support for the launching of a similar program.

Conclusions from HM Treasury, 2006

The 2006 HM Treasury commissioned survey on more than 100 operational PFI projects found that:

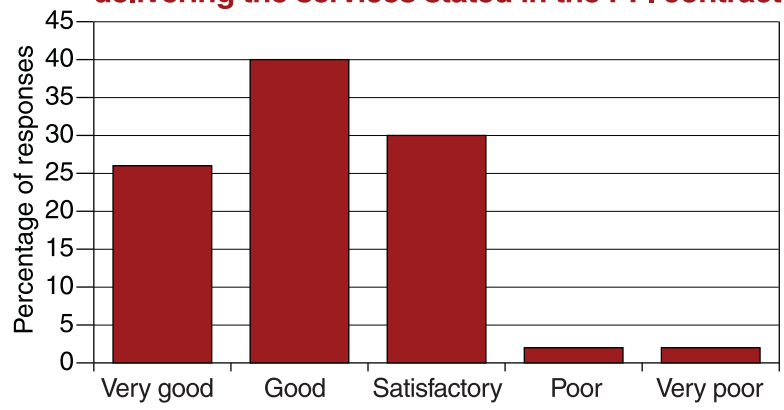
- 80% of all users of PFI projects were always or almost always satisfied with the service provided;
- 96% of projects were performing at least satisfactorily, with 66% of projects performing either to a very good or good standard;
- 83% of PFI project contracts always or almost always accurately specified the services required;
- 97% of public sector contract managers rated the relationship with their private sector counterpart as satisfactory or better.

Did the last user satisfaction assessment find that services were being delivered to an acceptable standard?



Source: Partnerships UK

Rating the overall performance in terms of delivering the services stated in the PFI contract



Source: Partnerships UK

[12] *PFI: strengthening long-term partnerships*. (March 2006). HM Treasury.

The 2003 and 2006 studies were further elucidated by a more recent 2009 NAO study.[13] The 2009 study concluded that most private finance projects (two-thirds) were built to the agreed time, price and specification, and the variations were modest. In the sample studied:

- 69% of PFI construction projects between 2003 and 2008 were delivered on time and 65% were delivered at the contracted price;
- Of those delivered late, 42% were delivered within six months of the agreed time, and under half experienced price increases.

The comparison of the 2003, 2006 and 2009 studies illustrates the consistency of P3 performance over a very long period of time. In contrast, California's procurement methods have not experienced the kind of innovation and improvements in performance attained in the U.K. Based on the need for job creation alone, California can no longer afford to ignore these results. California can and should borrow from the U.K. experience in an effort to accelerate its level of investment and the quality and impact of outcomes over time.

[13] *Private Finance Projects*. (October 2009). A paper for the Lords Economic Affairs Committee. National Audit Office.

The Australian experience reinforces the U.K. data and experience, and illustrates potential life-cycle cost savings from the effective implementation of P3 methods. In addition to improving timing (accelerated job creation) and on-budget delivery, P3 generates important life-cycle cost savings. In the U.K., typical life-cycle cost savings have run in the range of 15% to 30% of total life-cycle costs encompassing all of the project elements embodied in Design, Build, Finance, Operate & Maintain (DBFOM). A 2007 Australia study[14] showed 30.4% life-cycle cost savings.

Conclusions from the Infrastructure Partnerships Australia Study, 2007

The 2007 study commissioned by Infrastructure Partnerships Australia and undertaken by The Allen Consulting Group and the University of Melbourne with a sample of 21 PPPs and 33 traditional projects found that:

- PPPs had a 30.8% cost efficiency advantage over traditional procurement when measured from project inception;
- PPPs were much more likely to be concluded on budget than traditional projects, providing greater confidence to government and the community;

[14] *Performance of PPP's and Traditional Procurement in Australia*. (November 2007). Report to Infrastructure Partnerships Australia by The Allen Consulting Group.

- Between signing of the final contract and project completion, PPPs were completed 3.4% ahead of time, while traditional projects were completed 23.5% behind time;
- Traditional projects were subject to a significant optimism bias (defined as "the tendency for a project's cost and duration to be underestimated and the benefits overestimated"), while PPP projects were not.
- The PPP advantage increases (in absolute terms) with the size and complexity of projects;
- PPP projects are far more transparent than traditional projects.

If California were to achieve similar results, the savings would run into the hundreds of billions of dollars over the 30- to 50-year design life of major infrastructure assets. For example, a 30% life-cycle cost savings for a $500 million investment program could exceed $150 billion.[15] In the current fiscal environment, California cannot ignore these potential efficiency and productivity gains in infrastructure investing.

[15] *Investing in California's Infrastructure: How to Ensure Value for Money and Protect California's Competitive Position in the National and Global Economy.* (June 2006). Bay Area Economic Forum.

Part V

Significance for California

California needn't mimic the strategies developed in the U.K., Canada or Australia, each of which was developed to address challenges in distinct political and economic environments, but it can learn from them. It can also look at policies (with shorter track records) being developed in other states such as Virginia, Illinois, Massachusetts, Texas, Florida, and New York. A well-designed P3 program could, in addition to delivering core facilities, provide opportunities for innovative or transformational design in how these facilities are used. A California-specific program would also require consideration of the merits of a centralized administrative system, such as Infrastructure Ontario, or a more decentralized model that empowers, supports, and provides flexibility to individual agencies.

What would it take to achieve these results in California and foster the level of job creation referred to above (i.e., contributing to a 30% to 40% annualized reduction in unemployment over the next 10 years and the potential elimination of unemployment in the construction sector)?

Below are nine actionable prescriptions. One is immediate and relatively simple. The others require a higher level of political

commitment and investment, but will have a greater impact on the state's economy and employment outlook.

An Immediate Necessity

1. **The administration should recognize that the state must be open to alternative methods for infrastructure delivery, and the Governor should endorse P3 as an important tool in California's strategy to rebuild infrastructure and create jobs.**

   SB 4 (2009) lifted the ceiling on the number of projects approved through the California Transportation Commission that can be developed using P3 methods through 2016, established rules and procedures to govern those projects, and created the Public Infrastructure Advisory Commission (PIAC) to serve as a source of expertise and advise on project selection. The first and only project approved under SB 4, the Presidio Parkway in San Francisco, is under way.

   Since the beginning of 2011, no further project proposals have been brought forward, the PIAC has not been convened, and the Business, Transportation and Housing Agency (BT&H), which drove the P3 process in recent years, has been silent. To start to build a project pipeline that achieves the critical mass required to attract investment on a global scale, it is imperative to reestablish momentum in the program. At a minimum, the Governor should publicly state his support for the expanded use of private capital and P3 methods as a strategy to help rebuild California's infrastructure and create new jobs, direct senior officials to make P3 a priority, and reconvene the PIAC.

High-Impact Options

2. **Create a comprehensive infrastructure plan for California.**

   Develop a $500 to $750 billion 10-year infrastructure investment plan and the process to support it. Predicate the program on global infrastructure best practices, with P3 acting as a central element in infrastructure procurement reform, focusing on the following objectives:

   - A minimum of $250 billion in projects and committed capital within three years, to include a portfolio of pilot projects that, by size and sector, reflect the diversity of the state's needs;
   - A 30% to 40% annualized reduction in unemployment over 10 years, based on the creation of 6 to 7 million jobs or 600,000 to 700,000 jobs per annum;
   - The elimination of unemployment in the construction sector;

- A focus on key sectors including:
  - Transportation
  - Social Infrastructure (Education, Healthcare, Public Safety, Courts)
  - Water & Waste
  - Energy
- Use of the best public and private procurement methods based on a rigorous review of all procurement alternatives as evidenced by the application of a public-private sector comparator;
- Risk transfer from the public to the private sector, to optimize public and taxpayer benefit;
- Improvements in on-time delivery and achievement of 15% to 30% life-cycle cost savings, a level of performance that is consistent with leading global programs;
- Output- versus input-based project specifications;
- A procurement environment that measures performance, fosters competition and embraces innovation at all stages of the process.

3. **Create an Infrastructure Procurement Center of Expertise** capable of providing public and private sector participants in the procurement process with the necessary knowledge, skills and expertise to effectively participate in the application of global best practices here in California in the near term. Focus on the following key objectives:
   - Application of global knowledge and skill sets in California;
   - Public/private sector preparedness;
   - Project- and transaction-level execution;
   - Establishment of performance metrics tied to improved timing, cost and quality of outcomes.

   Similar to the approach taken by the U.K., consider funding and populating the center of expertise with a mix of public and private resources. If supported with the necessary resources, the California Infrastructure and Economic Development Bank (I-Bank) could potentially house such a center.

   Resolve potential conflicts by creating a transparent and effective set of governance practices aimed at fairness and realistic and practical rules of engagement. Curtail and eliminate the many layers of bureaucracy that have forestalled this type of innovation in the past.

4. **Leverage Existing Programs and Capacity.**
   Time is of the essence in job creation. Previous administrations have advanced important programs and policies that have been embodied in legislation and current departmental programs. It is important that the state maximize the value of these efforts in real time in order to jump-start the economy and job creation.

   - In 2006, voters authorized $42.7 billion of General Obligation bonds for infrastructure investment.
   - SB 4 (1999) created the Public Infrastructure Advisory Commission (PIAC), whose proposed Work Plan is on record.

5. **Establish a public-private sector comparator process** as part of the overall process of creating a ten-year infrastructure plan, and develop standards for comparing and evaluating alternative methods of procurement for state and local projects by geography and sector. Build on global best practices to create a tailored "California Comparator." Require that the comparator be used for all projects and that the best method of procurement in terms of timing, life-cycle costs and risk transfer be adopted, whether it be traditional public or P3 procurement. Allow the most efficient and cost-effective solutions to prevail.

6. **Develop an Availability Payment Standard for California.**
   There has been a long-standing perception that P3s should necessarily be limited to revenue-based projects that pay their own way. This point of view fails to recognize that the 15% to 30% life-cycle cost savings, improvement in timing, and delivery to budget proposition applies equally to revenue- and non-revenue-based infrastructure. To eliminate non-revenue infrastructure ignores the potential for substantial savings over time. Recently, the Presidio Parkway and Long Beach Courthouse projects were financed on a one-off basis with availability payments. These exceptions are important points of validation for this approach in California. The success of these projects supports the adoption of a general availability payment allocation within the state finance system, that accommodates an appropriate complement of non-revenue-generating P3 applications within the state. An availability payment reflects a payment stream that is assured by government (federal, state, or local, individually or in combination) in lieu of a user fee or tolling arrangement.

   The bottom line is that social infrastructure costs the state one way or another. The only alternative is to do little or nothing—which is our current state. In the right circumstances, P3 methods have been shown to be less costly

in terms of both capital and operating costs. What is less well appreciated is their role as an economic generator. Potential P3 projects can also be assessed in terms of their level of economic and social effect on their surrounding communities.

7. **Develop a Labor Protection Standard** that encourages partnership, addresses long-standing resistance from public employee unions in California, and fosters a cooperative approach to infrastructure investment. Public employee union resistance comes at the expense of union members in the private sector, where most of the new job creation resulting from infrastructure investment would occur, and where employment remains depressed. This divide is obstructing much-needed procurement reform. Labor issues have been better handled in the U.K., Australia, and Canada through various forms of employee protection standards.

8. **Adopt an Infrastructure Life-cycle Planning and Budgeting Process** which runs on a triennial cycle with the State's general budgeting process. Senate Bill 907 (Evans), Master Plan for Infrastructure Financing & Development Commission, was developed by the Treasurer's Office in cooperation with the bill's sponsor. The bill did not clear the most recent legislative session and is expected to be advanced in the next session (2012). AB 907 provides for many of the planning elements outlined in the three Bay Area Council Economic Institute white papers cited earlier. But the urgent need to accelerate investment and reduce unemployment cannot wait the many years that would be required to implement the bill.

9. **Reform the California Environmental Quality Act.** Reforming the California Environmental Quality Act (CEQA) presents complex and difficult political issues. Nevertheless, some measure of reform is appropriate as part of a broader agenda aimed at restarting the California economy and accelerating job creation and economic growth. The key issue with CEQA is not so much the intention of the law, but the time and resources it takes to get to a reliable yes or no answer for a project. So CEQA reform should focus on preserving the integrity of this important public policy while significantly improving projects' timing and cost of delivery.

Part VI

Immediate Infrastructure Project Opportunities

In 2010, the Public Infrastructure Advisory Commission (PIAC) developed a list of transportation projects in California that could lend themselves to development using P3 methods. The R.E.A.L. (Regional Economic Association Leaders of California) has also produced a list of projects at the county level that are potential P3s. The projects on both lists require more due diligence to determine whether P3 does in fact offer the best option. Their availability, however, strongly suggests that there are many projects already on the drawing board in California that could be developed with private finance now, generating near- and medium-term jobs.

It should also be remembered that the applications of P3 are not limited to transportation, but include a wide range of projects that range from schools to hospitals to wastewater treatment facilities. The Canadian and U.K. programs have, in fact, focused more on these other areas than on transportation. An energized California strategy should therefore address the full range of P3 opportunities.