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Infrastructure Outsourcing: Leveraging Concrete, Steel, and Asphalt with Public-Private Partnerships

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Executive Summary

Record economic growth has fueled a growing desire to rebuild and improve the nation's infrastructure. State and local governments traditionally have relied on public-works agencies or departments for project delivery, but the growing number of vital infrastructure projects has led these agencies to seek outside help. With increased participation by the private sector, innovative outsourcing has changed the face of infrastructure delivery.

The outsourcing wave continues to swell, affecting many different types of public-works agencies across the nation. Surveys show that at a minimum (not all agencies responded to the surveys):

- Natural-resource and environmental-protection agencies in 18 states outsource engineering services;
- General-services agencies in 22 states outsource architectural, building-construction, or facility-maintenance functions;
- Transportation agencies in 34 states outsource highway design, road and bridge construction, road maintenance, architectural services, or airport projects;
- Correctional agencies in 26 states and dozens of counties and cities have outsourced designing, building, and/or operating correctional facilities; and
- Virtually all local governments outsource the design and construction of roads, bridges, solid-waste facilities, schools, and water and wastewater facilities.

Public agencies have entered into these partnerships because strain on their budgets, need for additional personnel for a limited duration, project delivery demands, and lack of personnel or expertise have left them unable to meet the infrastructure demands of thriving economies. In 1998, the American Society of Civil Engineers estimated the cost of repairing and updating the nation's infrastructure to be $1.3 trillion.

A wealth of evidence demonstrates that outsourcing can be an effective tool that governments can use to deliver infrastructure projects and capture a broad range of benefits. Outsourcing part or all of infrastructure projects helps governments to:

- Achieve improved quality;
- Accommodate peak demand;
- Speed project delivery and meet deadlines;
- Gain access to expertise;
- Improve efficiency;
- Spur innovation;
- Better manage risks; and
- Cut or contain costs.

The first seven benefits are often overlooked in the public debate, but research shows that they often drive actual outsourcing decisions. This study provides the first systematic overview of all the potential benefits of outsourcing infrastructure projects, with both research summaries and case studies to help public officials find solutions they can use themselves.

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Given the dominance of cost issues in so many public debates, we also thoroughly examine the cost comparison literature. One disconcerting feature that emerges from studies of cost savings from outsourcing road and bridge projects (the only real body of infrastructure outsourcing cost literature) is the range of findings they exhibit. Most are conducted by the state transportation departments, and they tend to find themselves to be cheaper than consultants. But the findings range from consultant costs that are "cheaper" than in-house design in one study to 240 percent more expensive in another: mixed results at best. The picture only gets murkier if you bore down into the details.

Underlying these discrepancies are inconsistent methodologies, poor data, the exclusion of important cost factors, and widely varying measurements. Moreover, almost all of the literature examining cost savings from infrastructure outsourcing examines transportation projects. The evidence of costs savings from outsourcing the designing, building, and maintaining of water and sewer projects, public buildings and facilities, prisons, landfills, and the like is largely ignored.

Upon thorough examination of the data, it is clear that the use of consultants is beneficial in some areas. It is not a magic wand to solve all infrastructure delivery problems; however, creating a competitive environment in which public-works agencies work in tandem with private partners, shows tremendous promise for improving infrastructure delivery. The literature shows that (a) design costs were lowest in states that used a mix of private- and public-sector work and (b) states that used contracting had a slower growth of design costs than did states that did not use contracting.

Most important, cost is almost never the only reason for outsourcing; nor is it always the most important—a number of other factors have become key drivers of outsourcing. Council of State Governments data indicate that flexibility, access to personnel or skills not available in-house, increasing political support for outsourcing, and tapping of private-sector innovation are all important drivers of outsourcing.

Consider fixed staffing levels with changing project demands. Infrastructure development naturally ebbs and flows, but public employees, protected by civil service, remain at steady levels. The problem of having fluctuating workloads but steady staffing levels can be solved through outsourcing, using consultants as a resource pool that can adjust to address needs. A 1990 study by the Wisconsin Legislative Audit Bureau concluded that outsourcing was used primarily for two reasons: to provide expertise unavailable to in-house staff and to meet short-term, or "peak," demand levels, for which the addition of permanent staff would be uneconomical. The National Cooperative Highway Research Program surveyed state transportation departments and found that half of the states are using consultants to accomplish 50 percent or more of preconstruction engineering and that the primary reason for contracting for design work is constraints on staff size, or the desire to avoid staffing peaks.

We conclude that in order to keep up with growing demand and changing environments, public-works agencies must employ additional cost-effective resources to ensure delivery of all necessary services, and that outsourcing is one method of achieving best value for each dollar invested.

The use of the private sector in the delivery of infrastructure is a vital component of economic development. In order to keep up with growing demand and changing environments, public-works agencies must employ additional cost-effective resources to ensure delivery of all necessary services. That means recognizing the value of private-sector involvement and capitalizing on opportunities for outsourcing.

We conclude that in order to keep up with growing demand and changing environments, public-works agencies must employ additional cost-effective resources to ensure delivery of all necessary services, and that outsourcing is one method of achieving best value for each dollar invested. Improvements in the cost accounting of state agencies through implementation of new accrual accounting standards—and further moves toward full-cost accounting—will help decision makers obtain a clearer picture of project costs. And we make four specific recommendations to policy makers:

1. *Recognize the rich and varied potential benefits of infrastructure outsourcing.*
2. *Recognize the problems with cost comparisons.*
3. *Recognize the rich variety of types of outsourcing and project delivery.*
4. *Understand the importance of utilizing private-sector industries for delivery of public infrastructure.*