

PRELIMINARY
REPORT



Highway Robbery



**How Contracting-Out
the Design, Engineering,
Inspection & Management
Of Federally-funded
Transportation Projects
Produces Problems with
Cost, Quality, Safety &
Accountability.**

A REPORT BY THE
NATIONAL ASSOCIATION OF STATE HIGHWAY
AND TRANSPORTATION UNIONS (NASHTU)
MAY 2002 DAVID KUSNET, AUTHOR

Executive Summary

- The nation is making large-scale and long-overdue investments -- \$217 billion in federal funds over six years – in highways, bridges, mass transit systems, and similar projects.
- There must be real accountability for how this huge amount of federal money is spent by state departments of transportation.
- The contracting-out of engineering, design, inspection, supervision, and management of these projects is increasing exponentially – usually without competitive bidding, often with cost-plus contracts.
- That's in spite of the fact that 80% of comparative studies show that contracting-out engineering and similar functions costs more than doing the work in-house.
- Contracting out can be part of a budgetary shell-game: State transportation departments are freezing or cutting their engineering and technical staff, while contracting-out increasing amounts of work.
- State departments of transportation are losing experienced and dedicated professional staff and failing to recruit and retain a new generation of engineering and technical employees. If contracting-out continues to increase, states will lose their capacity not only to engineer and design transportation projects but also to oversee the consultants' work and protect the public's interest in safety, quality, and economy.
- That's why it is so important that Congress consider “accountability in contracting” provisions requiring state transportation departments to conduct cost-benefit studies before contracting out engineering and similar services on federally funded projects. The nation needs to make sure that the taxpayers get their money's worth for the essential investments Americans are making in transportation.

Encouraged and assisted by a major federal program -- the six-year, \$217 billion Transportation Equity Act for the Twenty-First Century (TEA-21)¹ -- state and local governments are making large-scale and long-overdue investments in highways, bridges, mass transit systems, and similar projects.

These investments are essential for America's future. An expanding population, a growing economy, and a deteriorating infrastructure, all require that the nation build new means of transportation and repair old ones in order to keep our people, our products, and our prosperity on the move.

Indispensable as these investments are, they must be made wisely. There must be real accountability for how this huge amount of federal funding is spent.

Consultant Costs Skyrocketing

Using this large and growing pool of federal funds, state transportation departments are dramatically increasing the amount of engineering and design work that they contract-out to private consultants, rather than relying on state engineering and technical employees. From 1998 to 1999, the first years of the TEA program, contracting –out increased from 35% to 42% of state preliminary engineering expendituresⁱⁱ. In several major states, the costs of consultant engineers have increased exponentially, growing by 2,650% in New Jersey over the last ten yearsⁱⁱⁱ and by 720% in Texas from 1994 through 1999^{iv}.

Meanwhile, many of the projects whose engineering and design work was contracted-out are costing more than was originally anticipated and are developing serious problems with quality and safety. For instance, the Central Artery Tunnel project in Boston – more commonly called “Big Dig” – had \$1.4 billion in cost over-runs in 1999 alone^v. And Los Angeles’ Red Line subway was plagued by problems including sinkholes in the streets, fraudulent inspections, and 60% more injuries among its construction workers than the national average for such projects^{vi}.

Budgetary Shell-Game

Contracting-out is attractive to many state transportation departments because it can be part of a budgetary shell-game. As their budgets tighten, state officials are under pressure to freeze or even cut their engineering and technical staff. By contracting-out engineering and design, state transportation departments can claim to be reducing their numbers of full-time employees, even while their consultant costs are skyrocketing.

For instance, in the New York State Department of Transportation, the total number of engineering positions declined by 10% from 1995 through 1998^{vii}. Meanwhile, the department uses consulting firms for 20% of its projects amounting to 50% of its total construction projects, even though a study by the accounting firm KPMG reported that consultants were more expensive than state engineers in 85% of the projects that were examined.^{viii}

Why Consultants Cost More

Unlike many other government contracts, almost all contracts for consultants to do design, engineering, inspection and project management are awarded without competitive bidding. In addition, many of these agreements with consultants are “cost-plus contracts” – contracts that commit state and local governments to pay for any and all costs that the contractors incur.

Higher salaries than in state government, profit margins of from 10 to 15%^{ix}, the lack of competitive bidding, cost-plus provisions, and additional costs connected with supervising outside consultants -- all explain why more than 80% of comparative studies have found that contracting-out engineering, design, and inspection costs more than performing these functions in-house.^x

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Brain Drains from State Transportation Departments

Moreover, the growing out-sourcing of engineering, design, and inspection is curtailing the capacity of state and local governments to do this work themselves. As private consulting companies perform an ever-larger share of engineering and design work -- particularly the most interesting assignments -- career professionals have less reason to continue working for state and local governments and more incentives to go to work for private firms themselves. Many major companies are stepping-up their efforts to recruit career professionals from states and cities, offering them higher salaries than they could ever earn from government work, so that they can help obtain new contracts from their former colleagues.

Thus, contracting-out feeds upon itself -- at the expense of the public that pays the bills. Claiming that public agencies don't have the staff to do the jobs, state and local governments contract-out the engineering and design. As private firms snag more and more contracts, career employees leave state and local departments of transportation to go where the action, the money, and the prestige are. In this way, contracting-out generates even more contracting-out, and the case for hiring outside consultants becomes a self-fulfilling prophecy.

The Loss of Accountability

As they fail to replace the professional staff that they lose, state and local transportation departments are losing the capacity to supervise and inspect major projects, as well as engineer and design them. This calls into question whether transportation departments can hold consultants accountable for the cost, quality, and timely completion of their work -- a problem that is being exacerbated now that consulting firms are taking on new roles. Increasingly, private companies are being hired to inspect, supervise, and even manage entire projects, as well as doing the design and engineering work. When the same team of consultants who design a project also manage and inspect it, it becomes difficult for the public officials who commissioned it to hold the consultants responsible for doing their jobs on time, on budget, and in keeping with the requirements of safety and amenity.

When private companies design, engineer, inspect, and manage entire projects, state transportation departments that have cut back their professional staffs can't hold consultants accountable for the cost, quality, and safety of their work.

One Remedy: Accountability in Contracting

These problems explain why proposals are being offered to hold state departments of transportation and the engineering and design firms that they hire with federal funds more accountable to the taxpayers whom they serve. As Congress considers reauthorizing TEA-21, an amendment has been offered that would require state governments to conduct cost-benefit studies before using federal highway funds for contracts to private consultants for design, engineering, and similar services, such as survey work and materials inspections.

This proposal would not eliminate the contracting-out of engineering and design work when it is the most efficient way to design and engineer transportation projects. It would require that the use of private consultants be justified in terms of the cost, efficiency, and the comparative capacities of private firms and public agencies to do the job in the best, the fastest, and the least expensive way possible.

Encouraging and Informing a National Discussion

With tens of billions of federal dollars funding transportation projects and state agencies deciding whether to farm out the design and engineering work or do it themselves, the nation's leaders need to debate and decide the policies that will make sure that the taxpayers get the most for their money. This report seeks to encourage and inform this much-needed national discussion.

This report explores:

1. The increasing size and scope of the contracting-out of design, engineering, and related work on federally funded transportation projects;
2. The growing body of research suggesting that contracting-out design and engineering is inherently more costly than doing it in-house;
3. The ways in which the excessive reliance on private consultants depletes the professional staffs of state and local departments of transportation;
4. The issues of accountability that arise when state transportation departments lack the staff to supervise the consultants' work, and private consultants