

increasingly conduct inspection and management, as well as design and engineering;

- 5. The problems that arose when design and engineering, and often management and inspection as well, were contracted-out in major projects in Massachusetts and California.**
- 6. And a proposal that has been presented in Congress to require state departments of transportation to justify their use of private consultants to do design and engineering work on federally funded projects.**

This report was commissioned by the National Association of State Highway and Transportation Unions (NASHTU), a coalition of 26 unions and associations representing over 100,000 transportation engineers and technical employees in state and local governments throughout the nation. While this report draws upon these employees' experiences, it relies more heavily upon studies commissioned by state transportation departments throughout the nation, investigations conducted by federal and state officials, and investigative reports and news stories in newspapers and magazines, including trade journals for engineering, design, and construction contractors.

We are sharing our findings with policymakers, journalists, and concerned citizens in the hope of encouraging debate and informing decision-making about how to obtain the maximum value from Americans' investments in federally funded transportation projects. These investments are urgently needed and so are mechanisms to make sure that the taxpayers get their money's worth.

I. Getting Contracts “While the Federal Money Is Hot”

- *The federal government is providing at least \$36 billion-a-year for urgently needed state transportation projects. The taxpayers need to make sure they’re getting the most for their money – much of which goes to engineering and design.*
- *State governments are contracting-out more and more engineering and design. In one recent year, throughout the country, contracting-out increased from 35% to 42% of total state spending on preliminary engineering work on transportation projects. In New Jersey, contracting-out skyrocketed by 2,650% in 10 years!*
- *Contracting-out can be a fiscal shell game. State transportation departments can brag that they’ve cut or frozen their own engineering and technical staff, while they hush-up the increased costs of consultant contracts.*
- *That’s why so many state transportation departments keep contracting-out engineering. As scholars from Rutgers University concluded, “The New Jersey Department of Transportation has been contracting-out work when the available empirical evidence suggests that contracting-out costs more.”*
- *Construction industry giants like Bechtel and Parsons Brinckerhoff are lobbying for engineering, design, inspection, and supervision contracts for transportation projects. One trade journal advises private companies to get moving “while the federal money is hot.”*

From constructing canals and railroads in the Nineteenth Century to building the interstate highway system in the Twentieth Century, ambitious transportation projects have helped to build our country and bring it closer together.

Now, as the Twenty-First Century begins, the nation is engaged in a program of building, repairing, and maintaining its transportation infrastructure as ambitious as these earlier efforts. Passed by both Houses of Congress and signed into law by President Clinton in 1998, the Transportation Equity Act for the Twenty-First Century (TEA-21) is the largest federal public works program in the nation’s history.^{xi}

Authorizing \$217 in federal funds through Fiscal Year 2003, the program pays for as much as 90% of the cost for state governments to build or repair surface transportation projects of all kinds. TEA-21’s funding – which exceeds \$36 billion a year – represents an increase of 40% over the resources provided by its predecessor program, the Intermodal Surface Transportation Efficiency Act (ISTEA).^{xii}

Encouraged and assisted by TEA-21, state departments of transportation have initiated or expanded projects to build, complete, repair or maintain roads, highways,

bridges, mass transit systems, and similar facilities. These projects are helping the nation meet the needs resulting from an increasing population, an expanding economy, and a deteriorating infrastructure.

Dramatic Increases in Contracting-Out

In order to design and engineer these projects – and, often, to manage, supervise, and inspect the work as well – state departments of transportation have made extensive and expensive use of private consulting firms. During TEA's first year alone, the share of state preliminary engineering expenditures that went to private firms increased from 35% in 1998 to 42% in 1999.^{xiii}

In state after state, contracting-out has become a centerpiece strategy for what the American Association of State Highway and Transportation Officials described, in the title of a major report, as "The Changing State DOT (Department of Transportation)."

For instance, in New Jersey, the contracting-out of engineering and design work for transportation projects has increased exponentially over the past ten years. In 1993, the state Department of Transportation awarded six new contracts, with a total cost of \$3.9 million. But, in fiscal year 2002, the department awarded 31 new contracts, with a total cost of \$105.4 million – an increase of 2,650% in only ten years.^{xiv}

The contracting-out of engineering and design work has increased almost as dramatically in Texas. From 1994 through 1999, the state's contracts to private firms for "preliminary engineering" skyrocketed from \$15 million to \$123 million – a jump of 720%.^{xv} Remarkably, in response to lobbying by private firms, the Texas Legislature passed a law in 1997 requiring that at least 35% of all the department of transportation's engineering work must be contracted-out to consultants.^{xvi}

In Texas, where the State Legislature actually mandated that the transportation department outsource at least 35% of its engineering work, contracting-out increased by 720% from 1994 through 1999.

Meanwhile, in Florida, according to the state department of transportation's response to a survey in 2001, consultants perform 76% of the total design work.^{xvii} As the department explained in response to questions from the National Cooperative Highway Research Program: "This includes project development and environmental studies, all aspects of design and post-design services such as shop drawing review."^{xviii} At headquarters, the department noted: "Consultants are used to accomplish approximately 40% of planning performed in the central office, which is responsible for policy and statewide programs."^{xix} Moving outside the central office, the department continued: "Consultants are used to accomplish over 60% -- in some areas, as high as 75% -- of

planning performed in the districts, which are responsible for all of the Department's regional, metropolitan, and local planning responsibilities."^{xx}

Outpacing even Texas, Florida, and New Jersey are five states that contract-out virtually all of their preliminary engineering work: Illinois, Indiana, Iowa, Louisiana, and Rhode Island. Indiana has virtually privatized the entire function, contracting-out 99% of its preliminary design work.

While state, federal, and local transportation projects have long been built almost entirely by private contractors, the growing reliance on private engineering and design firms is a new development. Historically, state and local departments of transportation have maintained their own staffs of career engineering and technical employees. Although some state and local transportation departments have contended that the new wave of projects stretches their existing professional workforces beyond their limits, the growing use of outside consultants reflects a conscious decision to rely on private companies rather than expand their own capacity.

Budgetary Sleight-of-Hand

That is largely because outsourcing can be a form of fiscal sleight-of-hand. At a time when state budgets are getting tighter, transportation departments can freeze or even cut their own engineering and technical staff and rely on consultants to perform a growing share of the work, especially when federal funds allow for large new projects to be commissioned. This pleases state legislators and other influential audiences who look more closely at the numbers of fulltime employees and regular payroll costs than at the costs of contracting-out.

The contracting-out shell game: State transportation departments cut or freeze state engineering and technical employees. Then they hire many more consultant engineers – at higher costs.

Two studies of the outsourcing of design and engineering work on transportation projects support this explanation of why contracting-out is so convenient. As scholars from the Eagleton Institute of Politics at Rutgers University concluded in their report, *An Evaluation of Contracting-out Activities in the New Jersey Department of Transportation*:

“The New Jersey Department of Transportation has been contracting-out work when the available empirical evidence suggests that contracting-out costs more. The explanation may be that contracting-out is more a result of trends in the department's funding sources and restrictions placed on the management of the department than actual cost savings.”^{xxi}

In a similar analysis, a study prepared for the National Cooperative Research Program observes that two of “the key drivers influencing DOT’s demand for outsourcing” are:

- “Reduction in workforce in departments of transportation and/or loss of in-house specialty capabilities”; and
- “[State] Legislators like outsourcing.”^{xxii}

One other important reason why “[State] Legislators like outsourcing” is that they and other public officials are besieged by major engineering, design, and construction management firms that are aggressively lobbying for government contracts. These companies include industry giants such as the Bechtel Corp. of San Francisco and Parsons Brinckerhoff of New York City, both of which are major contributors to political candidates for federal, state, and local offices throughout the country.

Private Companies Pursue Consultant Contracts

With the passage of TEA-21 and the flow of federal funds to state departments of transportation, private companies stepped up their efforts to obtain lucrative contracts to design, engineer, inspect, and even manage new projects. As one trade journal advised its readers, it was time to “Get the project started while the federal money is hot.”^{xxiii}

The New Jersey Department of Transportation paid a private company \$136,000 to do \$10,000 worth of work.

In one of many apparent examples of politically connected companies receiving state contracts, the New Jersey Department of Transportation paid \$136,000 to a private company to do work that regular employees could have completed for \$10,000. The engineering firm Edwards and Kelsey was paid that sum to convert the signs and measurements to the metric system on 90 road design maps used by department engineers. State employees involved in drafting told the department they could have done the work themselves for under \$10,000. The company had donated a total of \$112,000 to the state’s Republican and Democratic parties from 1990 through 1995.

As the cost-comparison studies that are discussed in the next section of this report reveal, the story of the map-changers in New Jersey is all too typical of contracting-out.