

NCHRP

SYNTHESIS 313

**NATIONAL
COOPERATIVE
HIGHWAY
RESEARCH
PROGRAM**

State DOT Outsourcing and Private-Sector Utilization

A Synthesis of Highway Practice

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NCHRP SYNTHESIS 313

**State DOT Outsourcing and Private-Sector
Utilization**

A Synthesis of Highway Practice

CONSULTANT
THOMAS R. WARNE
Tom Warne and Associates, LLC

SUBJECT AREAS
Planning and Administration

Research Sponsored by the American Association of State Highway and Transportation Officials
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TRANSPORTATION RESEARCH BOARD

WASHINGTON, D.C.
2003
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Systematic, well-designed research provides the most effective approach to the solution of many problems facing highway administrators and engineers. Often, highway problems are of local interest and can best be studied by highway departments individually or in cooperation with their state universities and others. However, the accelerating growth of highway transportation develops increasingly complex problems of wide interest to highway authorities. These problems are best studied through a coordinated program of cooperative research.

In recognition of these needs, the highway administrators of the American Association of State Highway and Transportation Officials initiated in 1962 an objective national highway research program employing modern scientific techniques. This program is supported on a continuing basis by funds from participating member states of the Association and it receives the full cooperation and support of the Federal Highway Administration, United States Department of Transportation.

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The members of the technical committee selected to monitor this project and to review this report were chosen for recognized scholarly competence and with due consideration for the balance of disciplines appropriate to the project. The opinions and conclusions expressed or implied are those of the research agency that performed the research, and, while they have been accepted as appropriate by the technical committee, they are not necessarily those of the Transportation Research Board, the National Research Council, the American Association of State Highway and Transportation Officials, or the Federal Highway Administration of the U.S. Department of Transportation.

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FOREWORD

*By Staff
Transportation
Research Board*

Highway administrators, engineers, and researchers often face problems for which information already exists, either in documented form or as undocumented experience and practice. This information may be fragmented, scattered, and unevaluated. As a consequence, full knowledge of what has been learned about a problem may not be brought to bear on its solution. Costly research findings may go unused, valuable experience may be overlooked, and due consideration may not be given to recommended practices for solving or alleviating the problem.

There is information on nearly every subject of concern to highway administrators and engineers. Much of it derives from research or from the work of practitioners faced with problems in their day-to-day work. To provide a systematic means for assembling and evaluating such useful information and to make it available to the entire highway community, the American Association of State Highway and Transportation Officials—through the mechanism of the National Cooperative Highway Research Program—authorized the Transportation Research Board to undertake a continuing study. This study, NCHRP Project 20-5, “Synthesis of Information Related to Highway Problems,” searches out and synthesizes useful knowledge from all available sources and prepares concise, documented reports on specific topics. Reports from this endeavor constitute an NCHRP report series, *Synthesis of Highway Practice*.

The synthesis series reports on current knowledge and practice, in a compact format, without the detailed directions usually found in handbooks or design manuals. Each report in the series provides a compendium of the best knowledge available on those measures found to be the most successful in resolving specific problems.

PREFACE

This report of the Transportation Research Board will be of interest to state departments of transportation (DOTs), as well as to other transportation professionals and the public who seek to leverage their work forces by outsourcing key activities. The report examines the current practices in outsourcing, what decisions are involved in deciding when to outsource, procuring and administering outsourced services, what are the most commonly outsourced activities, and determining the effectiveness of outsourcing. This report is an update of *NCHRP Synthesis 246: Outsourcing of State Highway Facilities and Services*, which provided a comprehensive look at the status of outsourcing as it existed in 1997, and the data compiled for this synthesis are compared with that of the earlier synthesis, where appropriate.

The information for this effort was derived in part from a survey questionnaire distributed to all 50 states and the District of Columbia. Replies to the survey came from 38 states and the District of Columbia. Information was also derived from a review of the relevant literature, which focused primarily on the engineering and design elements outsourced by state DOTs.

A panel of experts in the subject area guided the work of organizing and evaluating the collected data and reviewed the final synthesis report. A consultant was engaged to collect and synthesize the information and to write this report. Both the consultant and the members of the oversight panel are acknowledged on the title page. This synthesis is an immediately useful document that records the practices that were acceptable within the limitations of the knowledge available at the time of its preparation. As progress in research and practice continues, new knowledge will be added to that now at hand.

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and Thomas E. Stephens, Director, Nevada Department of Transportation.

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Information on current practice was provided by many highway and transportation agencies. Their cooperation and assistance are appreciated.

STATE DOT OUTSOURCING AND PRIVATE-SECTOR UTILIZATION

SUMMARY

The topic of outsourcing services by state departments of transportation (DOTs) is one of much interest and consideration. Capital programs in the states continue to grow at record levels thanks to the Transportation Equity Act for the 21st Century and various state initiatives. Demands on state work forces have never been greater. Consequently, state DOTs are looking for ways to leverage their work forces by outsourcing key activities to deliver products and services to their customers. With limited resources and ever-increasing demands for services, the DOTs are endeavoring to optimize their outsourcing activities. In 1997, *NCHRP Synthesis Report 246: Outsourcing of State Highway Facilities and Services* was prepared to capture the nature of outsourcing at that time. This report is an update of that effort and represents the most current knowledge on the subject.

The literature review found many studies and analyses of outsourcing activities in the state DOTs. Some are concerned with policy issues and conclude that decisions to outsource are focused on staff constraints or the need for specialized skills or equipment. Other studies focus on the trend toward public-private partnerships and how some DOTs have addressed their transportation challenges by using such partnerships. There are many published studies and reports by auditors, state DOTs, third parties, and associations that have attempted to quantify the cost-effectiveness of outsourcing engineering services. Many methodologies are presented, but none appear to be the defining statement on whether or not the outsourcing of engineering services is cost-effective. The focus of the literature is primarily on the engineering and design elements that are outsourced by state DOTs.

There was a strong response to the survey conducted as part of this study. From the data, it is clear that the level of outsourcing has grown in the 5 years since the publication of *NCHRP Synthesis 246* and will grow, albeit at a slower pace, in the next 2 years. The most growth is occurring among the Design activities, although strong growth patterns are manifested in Right-of-Way, Maintenance, Operations, and Planning activities.

One area of great interest is how DOTs make the decision to outsource. The report shows there are occasions when either the legislative or executive branches of state government mandate outsourcing directly, although more commonly they act to limit or reduce the number of state employees, resulting in a de facto mandate to outsource. In most cases, the decision to outsource is unique to the state DOT and the specific activity. In response to the survey questionnaire, the DOTs identified staff constraints and specialty skills and equipment as the principal factors influencing the decision to outsource, with cost-effectiveness seldom cited as a reason to outsource.

Substantial variations occur among the states and the activities outsourced when it comes to procuring these services. The type of contractor, method of procurement, and payment basis are all functions of the unique characteristics of the outsourced activity.

Determining if the outsourcing is effective or successful depends on the goals and objectives of the effort. If the schedule is of paramount importance, then a contractor that delivers on that schedule has been successful. In some cases, legal issues arise and a contractor that complies with such requirements is successful. If a project is complex and requires special skills or equipment, then a contractor that offers these and completes the project has been successful. Ultimately, effectiveness or success is defined by the agency outsourcing the activity in question.

There is great commonality of attributes among activities within specific groups sampled. For example, those activities involving Design will exhibit many similarities, as will those concerned with Maintenance. The type of activity and the nature of the work drives how it will be outsourced.

Outsourcing services by state DOTs will continue to be an important component of their program delivery. Staff constraints and the need for specialty skills or equipment will fuel this growth for the foreseeable future. Correspondingly, states may continue to refine their processes to the benefit of their customers.