

New England Transportation Consortium

Regional approach to common transportation problems

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A state undertakes a massive reconstruction project on one of its bridges. Although all the work is taking place within the state's borders, motorists just across the state line are caught in massive traffic jams caused by the nearby construction.

A new deicing chemical is applied to roads in one state. The runoff is carried into a neighboring state's waters, causing an outcry among citizens who had already voted against use of the chemical on their own roads.

A new permitting procedure for trucks is established in one state. A trucking company whose vehicles have been issued permits there finds that those same trucks will not be accepted by a neighboring jurisdiction, although the trucks travel regularly through both states.

To a certain extent, states can make their own decisions on how to handle their transportation concerns, but these decisions are never made in a vacuum. The effects of major projects and changes in policy can be felt far beyond the states' borders. In addition, states often have much in common with their regional neighbors—climate, topography, and socioeconomics, for example—and therefore may be able to take advantage of each other's experiences.

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Sporadic exchanges of information and ad hoc meetings of representatives from neighboring states are already common, but a group of New England transportation professionals decided that mutual cooperation was too valuable a resource to be left untapped. In 1983 they formed the New England Transportation Consortium (NETC), whose members are the state departments of transportation and state universities of Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont; the Massachusetts Institute of Technology and participants from AASHTO and FHWA. The program is administered by AASHTO as a pooled-fund project and is managed and coordinated by MIT.

Purpose

The purpose of NETC is to pool the financial, professional, and academic resources of New England and to use them for research and development of improved methods of dealing with common problems in the planning, construction, maintenance, rehabilitation, reconstruction, and operation of the highway system in the five states. The program is not intended to be a replacement for but is instead a supplement to individual, ongoing state research programs or participation in the NCHRP.

MIT first convened a meeting of FHWA, AASHTO, and state representatives in December 1983 to discuss

NETC Projects, 1986–1990

Round 1 (October 1, 1986–June 30, 1988)

- Technologies to more accurately assess the condition of concrete bridge decks.
- Uniform regional system for issuing permits for nondivisible oversize and overweight trucks engaged in interstate travel.

Round 2 (January 1, 1988–June 30, 1989)

- Uniform wetlands design procedures.
- Uniform crash-tested bridge guardrail design standards.
- Effects of heavy vehicles on pavements and bridges.
- Phase two of the Round 1 bridge deck investigation.
- Implementation of truck permitting procedures investigated during Round 1.

Round 3 (January 1, 1989–December 31, 1990)

- Effects of losses of or decreases in rail service in New England on highway infrastructure.
- Effectiveness of wetlands created as mitigation.
- Evaluation of effect on groundwater of application of calcium magnesium acetate.
- Correlation of increase in number and size of trucks and combination vehicles with safety.

ways to use regional resources effectively. Additional meetings with personnel from state agencies and universities crystallized the idea of a consortium that would have the following goals:

- Implementation of a three-pronged program for New England that consists of research and development, technology transfer, and education and training;
- Development of improved methods of dealing with common transportation problems;
- Effective use of the results of completed and current research activities; and
- Provision of trained professionals for employment in New England.

Organization

In 1984, representatives of the five states approached the AASHTO Executive Committee to request that AASHTO establish and administer the proposed consortium as an AASHTO pooled-fund project. The request was approved, with the proviso that other states be allowed to join NETC. AASHTO then helped to develop and execute the necessary legal documentation.

The formal memorandum of understanding that describes the program procedures states that NETC's overall direction, budget, and priorities are established by a policy committee composed of the chief administrative officers of the member states; the FHWA Region I administrator and the AASHTO executive director act as ex officio members. Continuing guidance is provided by a policy advisory committee made up of a representative from each state and six ex officio members: the FHWA regional deputy administrator and representatives from the five state universities. In addition, individual technical committees are formed for projects that have been selected for funding.

Funding

Funding for NETC's projects comes from a pool of contributions from each state's research funds, administered by AASHTO. The pooled-fund approach, which is also used by other AASHTO projects, allows AASHTO to simplify program administration by acting as a third-party funding organization and prime contractor. The states "send" funds to AASHTO, which contracts with MIT, which in turn manages the program and contracts with the state universities that are undertaking specific projects with MIT.

Project Selection

Candidate projects are recommended by the states and their universities. NETC ranks the recommendations in priority order by regional significance, common needs, and suitability for university research. The individual states determine the amount of funding for each project. A request for proposals is developed for each project by the assigned technical committee, and the universities are given the opportunity to submit competing proposals. The technical committees evaluate the proposals and submit recommendations to the policy committee, which then selects the university that will undertake the project.

In its first round of projects (October 1, 1986–June 30, 1988), NETC funded only two activities (see box). The results were so encouraging that the second round was expanded to five projects (including two carryovers from the previous round). As of spring 1989, the second-round projects were near completion, and selection of third-round projects was already under way. Four projects were selected from among 27 candidates, and proposals are being solicited from the NETC universities.

The NETC program has proved to be a fruitful way for a large number of participants to work together on cooperative regional efforts to address transportation problems of mutual concern. NETC projects provide the states with cost-effective solutions to growing regional transportation problems, improved productivity, integration of new technology applications, enhanced educational opportunities for staff, and continuing development of a pool of professional talent. The participating universities gain long-term transportation research funding, chances to improve and expand transportation-related educational programs, opportunities to make contributions to infrastructure rehabilitation, incentives to attract more students to civil engineering and transportation programs, and a stable pool of university research and education professionals.

Additional information on the New England Transportation Consortium can be obtained from Thomas F. Humphrey, Center for Transportation Studies, Room 1-153, Massachusetts Institute of Technology, 77 Massachusetts Avenue, Cambridge, Mass. 02139 (telephone 617-253-4978).