

# Roads And Economics In New England

## *Efficiency in Public Goods Provision:*

### *The Economics of New England's Rural Roads*

*This article includes excerpts from a study by Dr. John M. Halstead, Department of Resource Economics and Development, University of New Hampshire and Dr. Steven C. Deller, Department of Agricultural Economics, University of Wisconsin.*

A study was recently conducted to analyze managerial efficiency of northern New England towns in the production of rural road services. Results suggest that managerial inefficiencies are present and costs may be 40 percent higher than necessary. Further analyses indicate that local road officials who participate in formal training programs tend to significantly raise efficiency levels.

Below are some excerpts of the study presented August 1993 at the American Agricultural Economics Association Meetings in Orlando, Florida. The applied research presented in this paper assesses the ability of local road officials in the three northern New England states to effectively provide local road services in a cost effective manner.

The local road network is the heart of the stock of infrastructure supporting economic activities in rural areas (Gillis, 1989). While a well-maintained road network is essential for the efficient transportation of goods produced in rural areas to and from markets as well as for linking rural residents to employment opportunities, shopping districts, and health care facilities, the combined effects of age and deferred maintenance have greatly reduced the effectiveness of local roads (Congressional Budget Office, 1983; Hackett and Busson, 1986; Deller and Halstead, 1991).

## Rural Local Roads

The rural road system in the United States includes approximately 3.2 million miles of roads and highways plus thousands of connecting bridges (Chicoine, Walzer and Deller, 1989). More than 60 percent of rural road mileage is on county and town/township systems. In total, 14,349 towns and townships and 2,732 counties maintain rural roads. Mileage responsibility

ranges from an average of 33 miles for towns and townships to 728 miles for counties (Chicoine et al., 1989).

In northern New England (Maine, New Hampshire and Vermont) towns are vested with maintaining a total of 26,552 miles of public roads and 2,957 bridges (Chicoine, Walzer and Deller, 1989). The typical northern New England town is responsible for only 28.5 miles of road and three bridges. In light of the typical size of operation, the maintenance of the northern New England rural road network can be viewed as a scattering of small operations.

The condition of the rural road network supporting local economic activity is a cause for concern. Based on the assessment of local road officials in the three study states nearly one mile in four is in need of major repair and one in three requires more than regular maintenance (Deller and Halstead, 1991).<sup>1</sup> Almost a third of all town maintained bridges are in a sufficient state of disrepair that traffic flows are negatively affected. This pattern of a decaying rural road network, unfortunately, is not specific to northern New England (Walzer and Chicoine, 1987, 1989; Chicoine and Walzer, 1984). At issue here is the ability of the rural road network to continue to provide the vital underpinning necessary for the efficient operation of the rural economy.

## Results

[Results of this study support that] ...a responsible policy prescription... is the consolidation of production responsibilities, something considerably short of jurisdictional consolidation. Cooperative arrangements, state- or region-sponsored circuit rider programs, or jointly hired engineers are examples of policies that have lower costs through a consolidation approach.

Another approach that is supported by these results emphasizes the training of current officials. Training workshops in road engineering practices are available in nearly all the states. The results suggest that the return on the initial costs of the training programs is sufficiently large to warrant serious attention. ...The dramatic underinvestment in infrastructure and rapidly increasing property taxes in northern New England demonstrate that towns can ill afford to waste limited resources.

## Notes:

<sup>1</sup>A survey instrument was mailed to 981 town road officials in Maine, New Hampshire, and Vermont in the summer of 1990. A total of 316 usable surveys were returned (Maine-176; New Hampshire-63; Vermont-77). Although a 33 percent response rate is similar to other such studies, it must be remembered that only one in three officials responded.

## References

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