MTC Asset

MIDWEST TRANSPORTATION CONSORTIUM – Summer 2001 – Vol. 2, Issue 1

From the Director

What we know about and can learn from transportation asset management efforts overseas

Transportation asset management techniques and practices are extensively utilized in some parts of the world. In particular, many of the British Commonwealth nations—including Great Britain, Canada, Australia, New Zealand, and South Africa—have considerable activity in the use of asset management techniques and strategies to manage their public transportation infrastructure.

The unifying theme behind asset management overseas is "getting the most from publicly-owned transportation property," whether infrastructure or rolling stock. In Great Britain, this theme has been reduced to a two-word phrase: "Best Value," which means making sure that the public's money is invested in a way that returns the best value to them. This shorthand is very helpful for explaining the concept and benefits of asset management to interested parties and to the general public. (1)

New Zealand has adopted an even more compelling catch phrase for highway asset

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Transportation Scholars graduate

The MTC congratulates the following spring 2001 graduates who participated in the Transportation Scholars Program and wishes them success in the future:

University of Missouri–Columbia

Vanessa Amado received her M.S. degree in civil engineering and is now working towards a Ph.D. in civil engineering at the University of Missouri–Columbia.

Hao Daifeng received his M.S. degree in civil engineering and begins a career as a software engineer with I-Logix, Inc. of Andover, Massachusetts.

Kai Zhao received an M.S. degree in civil engineering and heads to Houston, Texas, as an engineering assistant for TEDSI Infrastructure Group.

Iowa State University

Michael Clay received his M.S. degree in Community and Regional Planning. Michael is now pursuing his Ph.D. in Transportation Technology and Policy at the University of California–Davis.

University of Missouri–St. Louis

Manos Kalogerakis received an M.B.A. in finance and will return to his native Greece this summer.

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management—"roadway health." New Zealand monitors the status of its roadways in terms of multiple indicators, such as ride and safety, and develops composite indicators to show how "healthy" parts of its system are. Rising crash rates, rougher pavements, etc., indicate a less "healthy" system. (2)

Most of these nations have advanced beyond the state of practice that exists in the United States. However, it is difficult to consider these nations as models for the development of asset management in the United States, because asset management has been applied very differently from place to place overseas. For example:

- Asset management systems overseas do not always play a critical role in major decisions, such as investments and privatization.
- In some places overseas, asset management is well supported as a business model. In other places, it is not.
- There is very little consistency from place to place in terms of how asset management is being applied or utilized. A great deal of variation and experimentation exists in terms of strategies, goals, data, and analytical techniques.
- Many overseas asset management efforts have not made requisite investments in modernizing their asset information systems and databases; therefore, the information resources and systems are often fragmented, unwieldy, and outdated, just as in the United States.
- The main reason that asset management is being adopted more rapidly overseas is the dramatic pace of privatization and contracting out of transportation infrastructure maintenance in foreign countries. Privatization and contracting out demand an accounting of the value of assets and a clear understanding of their ongoing performance characteristics. (3)

The fact that privatization and contracting out have been critical in the adoption of asset management overseas is discussed further below.

Driving forces overseas

The driving forces behind asset management in transportation in some nations overseas are clearly privatization and contracting out of infrastructure maintenance. This is most true in Great Britain, where major efforts are underway to privatize several major infrastructure systems, most notably railroad trackage, intercity freight and passenger rail services, large commercial airports, and portions of the subway system in metropolitan London. This sort of privatization scheme is ideal for the institution of asset management systems. There is a clear need for valuation and performance information when a private sector organization is likely to end up with total responsibility for maintaining and renewing a system of assets to a contracted performance level. (4)

One would expect that asset management efforts in Australia, Canada, and New Zealand would be the most analogous to those in the United States since their transportation systems, geographies, cultures, political systems, and institutions are most similar. However, even in Australia and Canada, the adoption of asset management strategies and techniques has been closely tied to long-term network maintenance contracting-out practices. In some Australian states, particularly New South Wales and Tasmania, contracts have been put in place for private firms to maintain and perform routine capital spending (for system renewal) on extensive portions of the public roadway system. The anticipated benefits of such arrangements were significant cost savings to the public. In fact, cost savings of up to 20 percent over in-house operations have been measured with no decline in performance. New Zealand uses its "roadway health" concept to help support and inform extensive contracting out for long-run maintenance services. (2)

Privatization and contracting-out efforts similar to those in Australia and New Zealand have occurred in the United States (particularly in Massachusetts and Texas, where extensive contracting out of routine maintenance has been experimented with but not institutionalized). However, such system-wide, long-term privatization efforts are relatively rare to date in the United States. Overseas experience appears to suggest that asset management systems are best put in place when major changes in operational practices demand them. This includes privatizing large portions of systems or contracting long-term for maintenance services.

In the U.S., states and localities are putting asset management systems in place largely to support improved

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decision-making and traditional, in-house operations or lately to help develop compliance with Governmental Accounting Standards Board Statement 34 (GASB 34). Perhaps the main reason that there has been no real urgency in developing asset management systems for many agencies in the U.S. is simply that, until the mandate of GASB 34, there has been no compelling reason to understand in detail the current value of the transportation system or to track its value over time. Asset management systems can certainly help domestic transportation agencies make better decisions on a day-to-day and long-term basis, but most are not involved in contracting out or privatizing activities that *demand* good asset value and performance information.

Conclusion

Given the points noted above, the optimal use for overseas examples of transportation asset management is to employ them as examples of "best practices" rather than as outright blueprints for domestic implementation. For instance, the manner in which transportation agencies in the United Kingdom are able to succinctly explain the main goal of asset management is worth emulating. So is the concept of "roadway health" auditing from New Zealand. There are likely technical practices that can be borrowed by U.S. agencies from overseas leaders in asset management as well. However, it is probably unrealistic to expect to be able to adopt an overseas model for transportation asset management in the United States outright, without wholesale modification. Agencies in the U.S. will develop asset management at varying paces and probably more slowly than agencies overseas where efforts to privatize and contract out are moving ahead very quickly.

David Plazak, Director

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P486-1024

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