Chapter 2: Purpose and Need

Why Does East Tennessee Need to Consider Transportation Alternatives

The world is constantly changing. Sometimes it moves in bold new directions. Sometimes it appears to move back to the future, recasting aspects of the past. Sometimes change is mandated or forced from above. Sometimes it is a product of grassroots efforts.

Transportation is always undergoing change – different vehicles, new roads and more traffic to list a few. Byproducts of these changes in the East Tennessee region have been the dominance of the automobile and deteriorating air quality. In the course of the region's *Nine Counties One Vision* process, concerns related to these and other transportation conditions resulted in transportation being a major issue for the region "to grow into greatness."

This chapter highlights reasons why East Tennessee should be concerned with transportation alternatives, and not rely almost exclusively on the automobile for regional travel.

Reasons Why Transportation Alternatives are Important to East Tennessee

- **Improves quality of life**
- **Offers choices**
- **Reduces reliance on automobile**
- **Reduces air pollution**
- **Addresses hidden costs of auto use**

QUALITY OF LIFE

Initiated in February, 2000, the *Nine Counties One Vision* process collected more than 8,800 ideas of what the future should hold for the region. Several themes emerged from the process, including some particularly relevant to the investigation of transportation alternatives, namely: growth management and rural preservation, downtowns, transportation, and economic development.

- **Growth Management and Rural Preservation –** *"The desire to preserve and enhance the region's environmental quality goes hand in hand with the desire to manage future growth with "well-planned development," that will "limit sprawl while respecting property owners' rights," and "restore the scenic character of the region, its rural ways of life and its natural and agricultural life support systems."*

- **Downtowns –** *"Regional and community interest in making Downtown Knoxville "the vibrant urban heart of the region" is high."*

- **Transportation –** *"the development of a transportation system that connects "every corner" of the region and that is "efficient, reliable, affordable and environmentally friendly."* This category contained more specifics such as the *"creation*

of a Regional Transportation Authority (RTA)" that will *"focus on rail and bus transportation with an emphasis on "pilot demonstration projects that utilize existing rail and road right-of-ways."*

- **Economic Development –** *"Tourism will play an important role in the region's prosperity. The vision recognizes that "tourism is the number one industry in the area" and recommends the development of a unified tourism strategy for the region."*

CHOICES

Individuals may measure quality of life in different ways, but having choices is an important factor. In the mid-1960s and early 1970s, transit was an option in East Tennessee. There were alternatives to automobile travel for regional as well as interstate travel. In 1965 there were 139 buses operating in the region. There were 22 trains and 98 intercity buses arriving or departing from the region. Today, there are no passenger trains. The number of intercity buses is just 36, only a third of what it was. Currently, there are only 50 buses operating during the peaks in the region, compared to 139 over 35 years ago.

The 30-year decline in transportation choices occurred while the region was growing. Population was increasing on average by 1 percent per year, growing from 565,000 in 1970 to 821,000 in 2000. More people – fewer choices.

AIR QUALITY

The Environmental Protection Agency (EPA) recently revised the standards for ozone emissions. Ozone is not a direct emission from transportation sources, but it is a gas formed when vapors from gasoline (volatile organic compounds (VOCs)) and nitrogen oxides (combustion from vehicles) combine in the presence of sunlight. Ozone irritates the eyes, impairs the lungs and can cause health problems.

It is speculated that the Knoxville area will not be able to satisfy the new regulations that take affect in 2004. A non-attainment area must demonstrate actions that will bring it into conformity with air quality goals. There are links between transportation conformity and continued Federal Highway Administration (FHWA) and Federal Transit Administration funding of transportation plans, programs and projects. A non-attainment area may find it difficult to fund expanded or new facilities for single occupant vehicles and may be required to consider transportation alternatives. Examples of alternative transportation solutions include bus service, park-and-ride lots, intermodal facilities, bikeways and bike parking facilities.

COST OF USING AN AUTOMOBILE

In meetings throughout the United States, a sentiment often repeated is, "Why bother with transit? It requires heavy subsidies and cannot support itself." True, transit does require subsidies. Every year local budgets are approved and the amount set aside for transit operations is readily apparent.

What is not so apparent or clear-cut is the cost of using an automobile. Estimating the true cost of automobile usage is highly controversial. Primary impacts associated with roadway needs and maintenance can be easily quantified. But what about the secondary impacts? There are social costs incurred to address issues that could be attributed to the automobile, including: accidents, air pollution, noise pollution, parking requirements, urban sprawl and the highway patrol. Would we have these problems and needs if we did not have the automobile? If not, then costs associated with these elements are hidden subsidies.

An article in the January 1998 issue of the Journal of Transportation and Statistics reviewed literature on the social cost of motor vehicle use. While there are as many different answers as there are research papers, it is not unreasonable to assume that only half of the costs associated with automobile use are the ones used in traditional analyses.[1] Thus, the hidden secondary costs (or subsidies) represent another half. Operating subsidies for transit vary, but 50-60 percent is not uncommon. Therefore, when all costs are considered, transit and roads are comparable in terms of investment costs.

[1] Murphy, James and Delucchi, Mark, *A Review of the Literature on the Social Costs of Motor Vehicle Use in the United States*, Journal of Transportation and Statistics, January 1998