

Chapter 1

INTRODUCTION AND OVERVIEW

In 1965, the U.S. Congress established the Appalachian Regional Commission (ARC). The overarching objective of the ARC is to promote economic and social development of the Appalachian Region. Since its beginning, the ARC has carried out a wide range of programs, intended to foster Appalachian Region economic development and well being.

The Appalachian Development Highway System (ADHS) is one of the key economic development programs of the Commission. That system of highways was conceived to comprise 26 corridors totaling 3,440 miles of highway, including 3,025 miles authorized by Congress for improvement. To date, some \$4.6 billion has been spent on the ADHS, with approximately 75 percent complete.

Because additional funds will be needed to complete the ADHS, and because of the ADHS economic development objectives, it is appropriate to quantify what impact the completed portions of the ADHS have had on the Appalachian Region.

The ARC sponsored this study which quantifies the economic benefits and impacts attributable to the ADHS. The benefits comprise the economic efficiency benefits and the impacts comprise economic development effects that can be reasonably attributed to the completed portions of the ADHS.

The Appalachian Regional Commission is a federal-state partnership, comprised of all of West Virginia and portions of 12 other states from Mississippi to New York.

Since the enactment of the Appalachian Regional Development Act of 1965, a combination of federal, state, local and private funding in excess of \$15 billion has helped provide highways, hospitals, land conservation, mine land restoration, flood control and water resource management, vocational education facilities, and sewage treatment works to the 21 million residents in the 399 counties of the Appalachian Region. Throughout the terms of seven US presidents, federal financial support has helped support the ARC to promote economic development in the Region.

THE APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM

In its 1964 report to Congress, the President's Appalachian Regional Commission (PARC) indicated that "...economic growth in Appalachia would not be possible until the Region's isolation had been overcome." The PARC report indicated that "the Interstate Highway System has largely bypassed the Appalachian Region, going through or around the Region's rugged terrain as cost-effectively as possible." As a result, areas of Appalachia remained isolated, many roads were "...narrow, with sharp switchback curves, steep grades, and short sight

Introduction

distances. These characteristics made driving hazardous and discouraged commerce and economic development.¹

In carrying out the intent of Congress, the ARC has stressed the importance of having good Appalachian Region transportation access. The idea is that, by providing access and efficient transportation, the residents of Appalachia will be better able to compete for economic activity, which in turn will improve living standards throughout the Region.

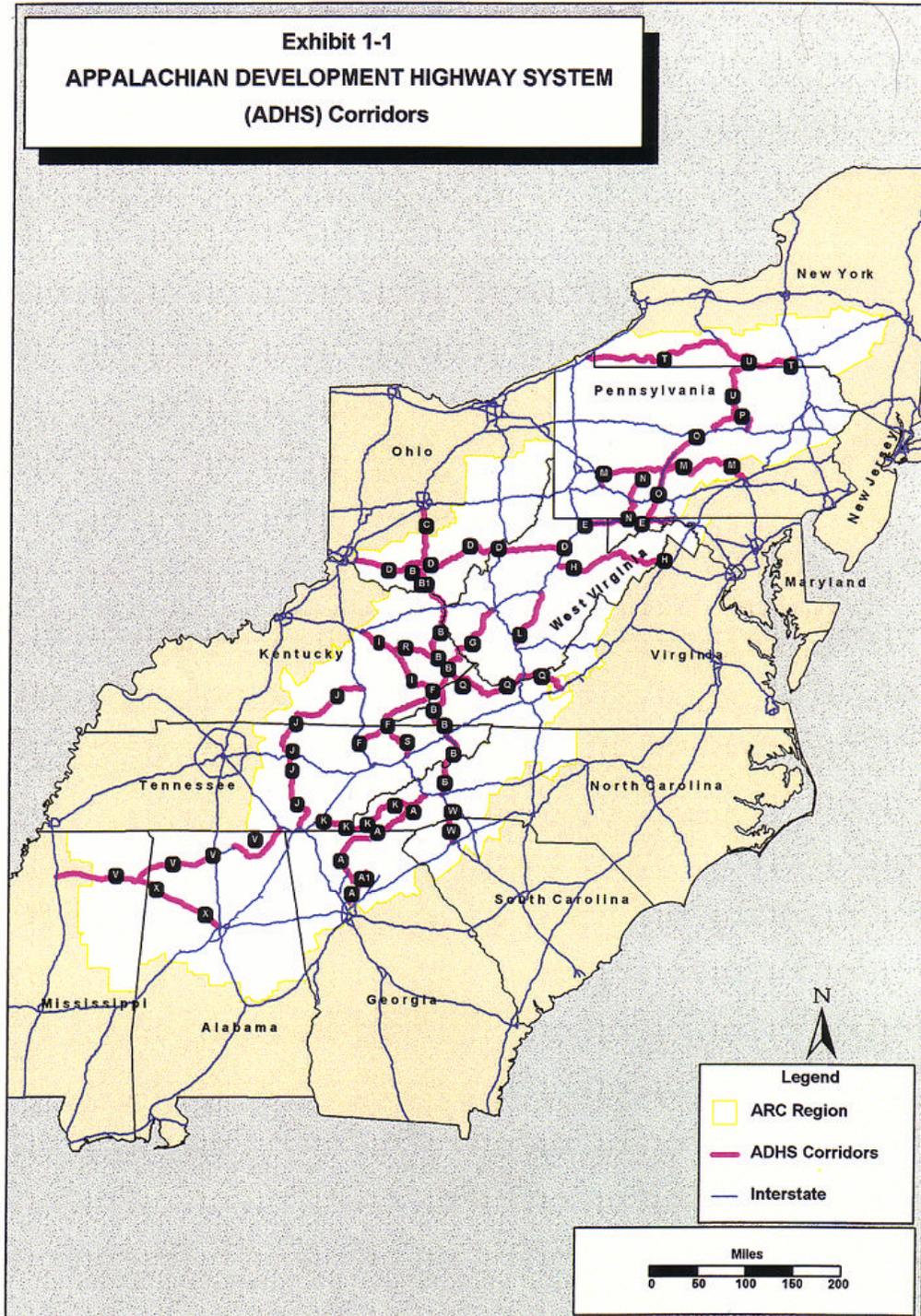
An important part of the ARC-administered program is the Appalachian Development Highway System. The ADHS is not intended to replace or duplicate the state or local highway programs or systems; rather, the ARC highway funds are intended to complement, or supplement, the state funds in building a system of highways to provide access to areas with development potential in the Region.

The ADHS – The Appalachian Development Highway System (ADHS) is planned to comprise 3,440-mile network of highways, with 3,025 miles authorized by Congress for improvement, serving the 13-state Appalachian Region, as shown on **Exhibit 1-1**. The letters on the ADHS corridors refer the official ARC corridor designations. More than 75 percent of the ADHS mileage is complete or under construction, mostly to four-lane standards, representing a public investment exceeding \$4.6 billion. The system is part of an overall development strategy for the Appalachian Region initiated in the mid-1960s to help provide the transportation access essential to improving the Region's economic position. As established by the U.S. Congress, the Appalachian Regional Commission (ARC) is the institutional body responsible for developing the ADHS.

The cost of completing the ADHS is estimated to approach \$8.5 billion, and ADHS advocates believe that completion of this highway system is vital to the Region. Sustaining financial support is crucial if the ADHS is to be completed. In the current environment of constrained public budgets, it becomes essential to evaluate the public benefit of each public program. Because the ADHS was established as an economic development tool, and because much of the ADHS is built, it is timely to measure what the completed portions of the ADHS have contributed to the program's economic development objectives.

¹ "Appalachian Development Highway System: Status Report," Appalachian Regional Commission, 1996.

Introduction



Introduction

ADHS Objectives – Each of the 13 states involved in the Appalachian program have state highway systems that are planned, built, operated and funded by a combination of state and federal tax dollars. These state programs for the most part are intended to meet the travel needs in the state. State investment priorities typically depend on travel demand (as evidenced by traffic volumes), travel safety, roadway conditions and needs, etc.

The ADHS, as envisaged by Congress, is something different. The ADHS highways have economic development and social enhancement objectives which differ from the typical state program. The individual states of course are interested in economic development, but, given budgetary constraints, traffic safety, highway capacity deficiencies and highway maintenance often supercede economic development when difficult highway priorities are set.

The ADHS is somewhat unique as a highway in that its stated purpose is to stimulate economic development and opportunities for the residents of the Appalachian Region.

The ADHS Highway Corridors – In selecting and designating the 26 ADHS corridors, the Appalachian Regional Commission sought to approve a network of Development Highway corridors that would: (1) link key centers in the Region to national markets, thus helping to make the corridor areas competitive for growth; (2) provide for more efficient flows of commerce through the Region in order to enhance the development potential of isolated areas traversed by the new routes; (3) facilitate the commutation of people to new jobs and public services to be developed along the System; and (4) open up new sites for development.

To achieve this, each corridor was selected to accomplish one or more of the following:

- (1) Major economic centers in Appalachia which were bypassed by the Interstate Highway System were to be linked to the Interstate System, restoring locational advantages which they had lost by being bypassed.
- (2) Selected corridors were chosen to help “close the gap” between key markets on either side of Appalachia that were not linked by the Interstate System. The region could then capitalize on the alterations in flows of commerce which such additions to the national highway network might induce.
- (3) Several corridors were selected to open up large areas of Appalachia with significant potential for recreation development.
- (4) By constructing a new highway system through the more isolated sections of Appalachia, it was also anticipated that commuting fields for the major job centers in and around Appalachia would be enlarged because more people would be able to travel greater distances in less time to the jobs and services being developed.

In other words, the purpose of the ARC highway program is economic development.

STUDIES OF ADHS EFFECTIVENESS

A number of studies have examined and tracked economic development in Appalachia, including development that has occurred in counties served by the ADHS corridors.

- **1987 Survey** – An ARC survey of jobs in the Appalachian Region found that 81 percent of total job growth in Appalachia between 1980 and 1986 occurred in the 241 Appalachian counties served by an interstate highway and/or an ADHS corridor. Unemployment rates in interstate highway/ADHS corridor counties was 8.5 percent, in other Appalachian counties it was 10.0 percent. The implication is that highways and successful economic development go hand in hand.
- **1994 Professional Geographic Study** – A study by Tyrell Moore, University of North Carolina, “...found a strong correlation between income growth and the presence of improved highways in Northern and Southern Appalachia. Central Appalachia had a weaker, but still positive, correlation...” Again, the implication that highways assist in the economic development process.
- **1995 National Science Foundation Study** – This more rigorous study by Andrew Isserman, Professor of Economics and Geography at West Virginia University, analyzed population and income changes over a 20 year period in Appalachia and compared those changes with statistical “twin” counties elsewhere in the US. The study found that the Appalachian counties with ADHS corridors grew 69 percentage points faster in income, 6 percentage points faster in population, and 49 percentage points faster in earnings. The rural counties with ADHS corridors fared even better.

These three studies suggest that better economic growth occurred in counties with ADHS corridors than in counties without ADHS corridors. But, these previous studies were not able to address the questions “How much of this growth is due to the ADHS? Does the ADHS cause development, or are the highways and their counties’ growth coincidental?”

KEY ISSUES ADDRESSED IN THIS STUDY

This study addresses the issue of the ADHS highways themselves, and specifically what the highways contribute to economic growth and economic development. The study does not imply that all Appalachian growth is due to the highways; rather, the study focuses specifically on the ability of the highways to attract economic value and development, and the quantified magnitude of that economic growth.

More specifically, this study seeks to address the following issues regarding the completed ADHS corridors:

- To what extent, and in what ways, do the ADHS corridors make the Appalachian Region more efficient?

Introduction

- Has the ADHS directly or indirectly caused job opportunities retention and attraction in the Appalachian Region? How many job opportunities are believed attributable to the completed portions of the ADHS?
- Has the ADHS led to increased production in the Region? How much?
- Federal funds have been used to build the ADHS. Is the desired economic development occurring? What magnitude of development?
- Based on the portion of economic benefits that can be quantified, what is the economic rate of return on the federal investment? Is it sufficient to indicate that this was a good use of tax payer funds?
- How do the various ADHS completed corridors compare, one with the others? Do they all appear to have been sound investments?
- To what extent have the ADHS corridors benefited the highway users? The non-users? Do people have to use the ADHS corridors in order to benefit from them?
- Have the completed ADHS corridors helped the Appalachian Region to compete on a more equal basis with other regions of the US for economic development?

One reason for this study is to gauge, in retrospect, the extent to which the completed portions of the ADHS have contributed to the economic well being of Appalachia. Implicitly, if the completed corridor segments have succeeded, then it might logically follow that the remainder of the ADHS (the segments that are not yet funded and/or built) might similarly be successful with their economic development orientation.

ADHS CORRIDORS INCLUDED IN THIS STUDY

This study focuses exclusively on those ADHS corridors that are completely, or principally, built and open to traffic. The study does not include corridors that are 75% or less built. Twelve of the 26 ADHS corridors shown on **Exhibit 1-2** meet this criterion. The 12 corridors evaluated in this study are these colored green on Exhibit 1-2. By including and analyzing only those corridors that are principally complete, it is possible to address the question “What economic impacts have resulted from the ADHS corridors that are already built and open to traffic?”

Introduction

