

gram. The new cost to complete reduced the overall cost to \$31 billion from \$53 billion. (The Reagan Administration has proposed a similar approach in its highway bill.)

Consolidation of Programs

In the Carter bill, many narrow categories were combined into three larger categories; they are the federal-aid rural, federal-aid urban, and the federal-aid safety programs. The rural program was broadened to include capital expenditures for public transportation and rail branch lines. Both the urban and rural programs eliminated the concept of federal-aid system for project eligibility. Funds could be spent on any project on any public road. The consolidation of the safety programs included the rail-highway crossing safety programs, but would not change the congressional intent of the categorical programs, i.e., safety funds must be spent on safety projects, and they were not transferrable to any other programs. The Bridge Replacement and Rehabilitation Program was retained as a separate program. (While the Reagan bill retains the bridge program, it phases out the urban and secondary programs in two years and eliminates most of the safety and other small categorical programs in 1982.)

Highway Trust Fund

The Carter proposal recommended retaining the High-

way Trust Fund as the main vehicle for financing highways and increasing the fuel tax from 4 to 6 cents. Other taxes were increased for heavy trucks, and all exemptions would be subject to sunset requirements in 1987. (The Reagan Administration bill extends the existing taxes through 1989 and the Trust Fund until 1990.)

CONCLUSION

The federal-aid highway programs and initiatives that will be developed in 1981 will be closely intertwined with national issues in transportation and other major issues facing the country, such as the need to control inflation and government spending. Nevertheless, the contribution that a well-functioning national system of highways makes to the growth of the national economy is significant, and the maintenance of the system is an important goal. The systems' conditions are not a surprise to highway officials who have been trying for years to solve many of these problems with declining revenues. In 1981 we have another opportunity to establish effective policies and to set realistic priorities to address these problems.

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Role of Multistate Regions in Development of National Transportation Policy

RICHARD B. ROBERTSON

The experience of the Appalachian Regional Commission is used as an example of the role multistate regions can play in the development of national transportation policy. Most initiatives come from the states rather than federal agencies, in part because federal agencies do not need or want such assistance, or because they feel the states should decide such matters. Work done by regional commissions is generally welcomed by the states, but the reception by federal agencies is less enthusiastic. Conclusions and recommendations deal with national policy and agency regulations while calling for significant additional transportation investments in a particular region as opposed to the nation.

Is there a role for multistate regions in the development of national transportation policy? If so, how should a multistate area organize to make an input into such development? What are some examples of what has been tried and where have efforts succeeded and failed and for what reasons? This paper will address these points to some degree by using the Appalachian Regional Commission (ARC) as an example. It is not an attempt to settle the issue once and for all.

There is a valid role for an organized group of states in the development of national transportation policy. Some basic reasons are (a) recognition that many national transportation policies are interstate (or international) in nature, (b) to bring greater resources to bear on the identification of critical issues for a particular area, and (c) to apply these multistate resources to the resolution of such

problems, with particular emphasis on consideration by the Congress and the Administration.

No single organizational arrangement is best for every issue, and several multistate organizations may often work toward resolution of the same problem. The American Association of State Highway and Transportation Officials (AASHTO), the National Governors' Association, the National League of Cities, and others assist groups of states on special interests, but they are national organizations usually trying to develop a national consensus. On the other hand, there are many multistate organizations such as the ARC (an independent agency), the Title V commissions (agencies within the U.S. Department of Commerce), the Tennessee-Tombigbee Waterway Authority (created by a compact of five states), etc., which normally seek special legislation favoring certain projects or geographic areas.

The ARC is an excellent example of how a multistate organization was created for certain reasons. One of the most important was a need to construct a highway system that, in conjunction with the Interstate system, would open up areas with a developmental potential. Perhaps the most important contribution made by the ARC is its way of making decisions. For that reason this paper will begin with a brief explanation of how the ARC is organized

and then move to specific examples of activities in transportation areas.

The Appalachian region includes all of West Virginia and portions of 12 other states from New York to Mississippi. The ARC was created in 1965 by the U.S. Congress in response to the recommendation of a presidential advisory commission and the Conference of Appalachian Governors. Its overall purpose was to assist Appalachia in meeting its special problems, to promote its economic development, and to establish a framework for joint federal and state efforts on a coordinated and concerted regional basis. Some key elements of its structure and operation are

1. Independent commission comprised of a presidential appointee and the 13 Appalachian governors,
2. Decisions by the commission require the affirmative vote of the federal cochairman and of a majority of the state members,
3. A staff of 120 whose salaries are paid one-half by the federal government and one-half by the 13 states, and
4. Projects and programs funded from federal general funds and matching state/local funds.

Since the ARC is an independent agency, it can present its views directly to federal agencies, the Administration, and the Congress. Since the staff are paid equally by the states and the federal government and the executive director of the staff is appointed by the Commission, the staff is generally responsive on an equal basis to federal and state interests. The fact that Commission funds come from the general fund of the United States is significant for the Commission's highway program, because highway allocations to the states are in addition to federal Highway Trust Funds.

How, then, has the ARC been involved in the development of national transportation policy? There are a number of areas that deserve comment.

RURAL PUBLIC TRANSPORTATION

In 1972, the Commission funded its first rural public transit demonstration project. While the primary purpose was to serve employment trips, ARC emphasized the importance of moving toward coordination of social-service agency transportation. Funds for front-end planning and operational subsidies were provided, but management responsibilities were emphasized to decrease the percentage share of operational subsidies. Other demonstrations were made along with feasibility/management studies in eight states, which gave these projects an advantage in qualifying for Section 147 funds. The U.S. Senate Public Works Committee staff met with Commission staff to determine our rationale for subsidy of operational costs. Several of the most important elements of this program have been the Commission's flexibility and ability to provide front-end planning/administrative costs.

RAIL REORGANIZATION ACT OF 1973

At the request of a number of Appalachian states, the ARC participated in meetings of the Conference of States on Regional Rail Reorganization. The Commission met with the Federal Railroad Administration and the U.S. Railway Association (USRA) on a number of occasions to represent concerns regarding rail abandonment. It conducted a study in which a methodology was developed for measuring community impacts as the result of rail line abandonment and urged USRA to take this into account in the development of its final system plan. Formal presentations

were made before the U.S. Interstate Commerce Commission (ICC) regarding the failure of USRA to properly consider economic development issues, including the movement of coal. The USRA and Conrail became more sensitive to these issues, partly because of this effort, and some concessions were achieved.

As part of its rail efforts, which began in 1974, the Commission prepared one report on the impact of the Railroad Reorganization Act on economic development in Appalachia. Another report determined the present operational and condition characteristics of all rail branch lines in Appalachia and examined current assistance programs and the railroads' own efforts to improve their capital investments and quality of service. The abandonment of light-density branch rail lines is a matter of serious concern for Appalachia because of its many rail-intensive but scattered industrial sites. Also, the Appalachian states with their coal resources find the rail system critical to their economies as energy demands grow.

AIRLINE DEREGULATION ACT OF 1978

The Commission joined with its member states in responding to proposals developed by the U.S. Civil Aeronautics Board (CAB) and its staff regarding implementation of the small community air service program and the determination of "essential air service." Several formal presentations were made to the CAB in addition to ARC's technical assistance to a number of small communities in Appalachia. Air transportation was shown to be important in achieving the developmental goals of the region, and a quick review of air service in Appalachia pointed to a severe deterioration since deregulation occurred. In view of this, the Commission has a study under way on the effects of airline deregulation on air service in Appalachia. The purpose of this study is to (a) establish the facts about changes in air service to Appalachian communities since deregulation, (b) identify problems and issues in the transition from a regulated to a deregulated environment, and (c) develop proposed policies and programs for assuring adequate air transportation services in the future. Currently, the ARC is preparing a response to the Federal Aviation Administration's (FAA) rulemaking on the functioning of slot allocation committees at National Airport.

COAL HAUL ROADS

Due to the importance of Appalachian coal, the Commission undertook an assessment of the effects of coal movement on the highways in the Appalachian Region. Some 14 300 miles of roads within the eight coal-providing states were identified as coal haul roads. A conservative estimate set the cost to reconstruct existing roads and bridges to adequate structural standards for coal haulage at about \$4.5 billion. This work was completed in November 1977 and was used, in part, by the Federal Highway Administration (FHWA) in its Coal Haul Road Study completed in April 1980. The Commission worked with FHWA to devise a methodology for a more detailed state-by-state assessment of coal road needs throughout the United States. The Commission worked with the U.S. Departments of Transportation and of Energy along with the Office of Management and Budget (OMB) in an effort to define possible funding sources for a coal haul road improvement program. The Commission also joined with the National Governors' Association (NGA) to address how nationwide needs regarding coal haul roads and coal train impacts at grade crossings might be funded. The NGA

and ARC transportation representatives agreed that a \$10 billion program over a 10-year period, funded from the windfall profit tax, was the proper approach. This was not endorsed by the Carter Administration.

TENNESSEE TOMBIGBEE WATERWAY

Over the period 1975 to 1977, the Commission made a comprehensive assessment and evaluation of the impacts and development opportunities that would result from construction of the Tennessee Tombigbee Waterway. It looked into what public policies and programs would be needed to accommodate future changes to capture the development opportunities of the waterway. This effort was not made to justify the construction of the waterway--it assumed its completion and then focused on the development opportunities that would accrue to the impacted area and how to take advantage of them. As a followup to this study, the Commission provided \$12 million for special access roads in Mississippi and made other funds available for port studies and related development planning.

COAL SLURRY PIPELINES

In 1978 the Commission completed a study of the coal flow network in Appalachia. This study identified those coal flows with a potential for slurry pipeline application. These were analyzed and the cost of coal transportation by a slurry pipeline determined and compared with that of the competing mode. The socioeconomic and environmental implications of coal slurry pipelines were analyzed within the context of the more likely applications. Recommendations were made regarding the development of regional and state policies regarding coal slurry pipeline applications.

OTHER ENERGY TRANSPORTATION

The Commission undertook a broad-ranging study on the major movements into, through, and out of the region by various transportation modes (primarily rail, water, and pipeline) of all energy commodities produced or consumed. The purpose of this study, completed in 1978, was (a) to identify potential mainline capacity problems, (b) to develop recommendations on energy and transportation policies, (c) to develop information on energy and energy flow in Appalachia, and (d) to develop an analytical methodology usable for continuing policy analysis.

In 1980, the ARC decided to review its previous transportation efforts relative to the production, use, and transport of Appalachian coal and other energy resources. Based on this review, a review of other agency studies, and an assessment of those issue areas most critical to the region in both the short and long term, the Commission will undertake a series of energy transportation efforts in 1981--concentrating on items it believes can be positively impacted by the Commission effort.

In late 1980, a truck and rail deregulation study was initiated. Its purpose is to assess the impact of deregulation on the quality and quantity of goods transportation service provided to the Appalachian Region.

The results of these efforts may be used to seek legislative changes and administrative/regulatory rulemaking.

APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM

The ARC may be known best for its effort to construct a 3025-mile Appalachian Development Highway

System. More than \$2.4 billion in federal non-highway trust funds have been obligated on this system since it was designated in 1965 and more than 60 percent of the system is either constructed or under construction at this time. The purpose of this system is to open up areas of Appalachia with a potential for economic development. While much of it is designed close to Interstate standards, it becomes part of the Federal Aid Primary System (FAPS) when completed. This is an economic development highway program, and it was the basic concept used for FHWA's Economic Growth Center Development Highway Program. The Commission is conducting an in-depth review of the Appalachian Development Highway System in 1981 to develop a realistic strategy regarding its completion.

SUMMARY AND CONCLUSIONS

The ARC has conducted studies on highways, rail, air, mass transit, waterways, and pipelines over the years. In addition it has funded construction of the Appalachian Development Highway System to advance economic development in the region. Except for the Appalachian Development Highway System, none of the Commission efforts cited in this paper occurred in the Commission's first seven years (1965-1971). Exactly why more transportation issues were not addressed in the early years is not clear. In 1974, there was a Commission assessment of previous transportation projects and programs, which resulted in recommendations concerning transportation efforts to be undertaken in future years. Prior to this effort, there had been a lack of focus on multimodal issues. A staff reorganization in 1975 to remedy this problem resulted in a Transportation Division within the Commission and consolidation of all transportation responsibilities. There may have been a heightened perception of the Commission's transportation abilities by its member states. There was recognition of a need for concerted multi-state action on pressing issues such as the Rail Reorganization Act of 1973, the Airline Deregulation Act of 1978, and the high cost involved in repairing coal haul roads.

What can be concluded from a review of the ARC's transportation efforts and its impact on the development of national transportation policy? What does it imply for multistate efforts in the future? Almost all of the efforts undertaken by the ARC and identified in this paper (except for the Appalachian Development Highway System) were initiated at the request of a number of Appalachian states. Sometimes the request came directly from the governor, since the Commission works directly with his office, and sometimes from the Transportation and Highway Departments, through the governor's office.

Federal agencies have approached the Commission on a more infrequent basis with requests to help on transportation issues. This may be due to a belief that they need less assistance, or because they believe it should be up to the states to decide whether the Commission should have a role to play, or perhaps because the issue involves controversy over their own programs.

Work done by multistate organizations is generally well received by member states, but less success is achieved with federal agencies. A number of reasons for this may be (a) agencies such as the ICC, USRA, and CAB may not be as responsive as others due to their more independent nature; (b) the multistate recommendations may call for significant investments, such as the coal haul road program; (c) the organization may not be perceived as having enough political clout; (d) proposals may be viewed as beneficial to only a small group of states; and

(e) proposals are usually directed more to changes in federal rules, regulations, and legislation.

Multistate proposals to federal agencies are more likely to be implemented when (a) the issue is addressed enough in advance of key decision points that there is time to coordinate efforts by elected representatives, (b) working relationships are developed with professional staffs of congressional committees, transportation interest groups, and the federal agencies; (c) sufficient funds and adequate staff are available at the multistate organization

to produce a thorough report; (d) the substance and quality of previous and ongoing work are considered appropriate by the transportation professionals (and acceptable to elected and appointed officials) representing at least the multistate area served by the organization; and (e) state and federal transportation staffs are involved with the effort from its inception.

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Improving Usefulness of Section 15 Data for Public Transit

JAMES M. HOLEC, JR., DIANNE S. SCHWAGER, AND MARTA J. GALLAGHER

The purpose of this paper is to accelerate the creative and insightful use of a new and powerful data base. The paper focuses on the use of Section 15 data as a surveillance and monitoring tool for statewide transportation planning and management. Use of Section 15 data for this purpose is receiving widespread attention and is advancing from initial consideration to development and implementation in many areas. This activity is likely to increase with the release of Section 15 data by the Urban Mass Transportation Administration. Two principal methods for improving the usefulness of Section 15 data are discussed in this paper. The first method involves improving the potential user's familiarity with the nature and quality of the data. This familiarity will foster informed analysis and limit misrepresentation of a transit system's financial and operating performance. The second method involves enhancing the data base itself through editing and correcting the initial submissions of transit operators, clarifying reporting instructions (and thereby improving the quality of data submitted), modifying reporting forms, refining data-collection techniques, adding or deleting data elements, and/or augmenting the Section 15 data base with other available data. These methods are introduced by first providing a brief perspective on the type of information contained in the Section 15 data base, discussing specific shortcomings with the current data, and concluding with a summary of methods for improving the usefulness of the data base.

In November 1974, the Urban Mass Transportation Act was amended to introduce federal participation in the financing of transit system operating expenses. Provision of funds for this purpose through Section 5 of the Act was accompanied by a directive to the U.S. Secretary of Transportation to develop, test, and prescribe a uniform system of accounts and records "to accumulate public mass transportation financial and operating information." The directive further specified that, after July 1, 1978, no grantee could receive federal operating assistance through the Section 5 program without complying with this reporting requirement. The portion of the Act that established this new requirement was Section 15.

The first full year of the Section 15 reporting system encompasses the reports of transit systems with fiscal years ending between July 1, 1978, and June 30, 1979. The Urban Mass Transportation Administration (UMTA) has received nearly two full years of data under this reporting system and is planning its initial release of industry summaries for the first full year, reflecting data for more than 300 transit systems.

WHAT IS CONTAINED IN THE SECTION 15 DATA BASE

To obtain a complete understanding of the Section 15 reporting system and the information contained in

the Section 15 data base, it is essential that potential users of these data review the report, Urban Mass Transportation Industry Uniform System of Accounts and Records and Reporting System, and its complementary reporting manuals: Required Reporting Manual and Sample Forms, Level C Reporting Manual and Sample Forms, Level B Reporting Manual and Sample Forms, and Level A Reporting Manual and Sample Forms. This documentation provides detailed instructions and sample forms for filing Section 15 reports in compliance with federal requirements. The report is available through the National Technical Information Service (NTIS); the manuals can be acquired through UMTA's Office of Transportation Management.

The Section 15 system consists of multiple levels of reporting detail reflecting differences in the size of the transit agency submitting data (measured by the number of vehicles it operates in revenue service). For each level of reporting, data are submitted on the sources and uses of funds for capital and operations, and on the physical, service, and utilization characteristics of the operating system. Financial information is provided on an accrual basis of accounting and the reporting schedule is designed to allow for the reporting of audited financial data as required by the Section 15 system. Physical, level-of-service, and utilization characteristics are based on counts at a point in time (e.g., revenue vehicles are reported at the end of the year level), accumulation of data throughout the year (e.g., annual vehicle miles operated or annual accidents by category), or estimates of annual totals based on sample observations collected randomly throughout the year (e.g., annual passenger trips or annual passenger miles).

Figure 1 presents the type of information contained in the Section 15 data base and Figure 2 illustrates a typical format for summarizing this information. These exhibits begin to suggest the type of analyses that can be conducted by using Section 15 data and showing the compilation of information in selected categories.

The use of Section 15 data for the surveillance and monitoring activities of state agencies is currently in the formative stages. In this developmental period, it is important for these state agencies to be familiar with the quality of information