

093349

B-164497(3)
5-12-71



REPORT TO THE CONGRESS

Highway Program Shows Limited Progress Toward Increasing Accessibility To And Through Appalachia

B-164497(3)

Appalachian Regional Commission

BY THE COMPTROLLER GENERAL
OF THE UNITED STATES

~~713749~~

093349

MAY 12, 1971



COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON D C 20548

B-164497(3)

To the President of the Senate and the
Speaker of the House of Representatives

This is our report entitled "Highway Program Shows Limited Progress Toward Increasing Accessibility To and Through Appalachia " This program is administered by the Appalachian Regional Commission.

Our review was made pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), and the Accounting and Auditing Act of 1950 (31 U.S.C. 67).

Copies of this report are being sent to the Director, Office of Management and Budget, the Federal Cochairman and the States' Regional Representative, Appalachian Regional Commission, the Secretary of Transportation, and the Administrator, Federal Highway Administration

A handwritten signature in black ink, reading "James B. Stacks".

Comptroller General
of the United States

D I G E S T

WHY THE REVIEW WAS MADE

The Appalachian Regional Development Act of 1965 was enacted to promote the economic development of the Appalachian region on a coordinated and concerted regional basis. Studies and congressional hearings preceding passage of the act emphasized that an adequate transportation system was the first requisite for successful economic development of Appalachia. The General Accounting Office (GAO) in its review sought to determine whether the Appalachian development highway system was achieving the objective established for it--to increase accessibility to, through, and within the region.

FINDINGS AND CONCLUSIONS

Limited progress has been made toward accomplishing the objective of the development highway system, as discussed below.

The act authorized \$1.768 billion in Federal funds for a 6-year development effort and established the Appalachian Regional Commission to plan and coordinate it.

About \$1.165 billion was earmarked for the development highway program. Of that amount, about \$1.08 billion was for construction or improvement of development highways to open up isolated areas.

About \$80 million was for building access roads to connect industrial sites and recreational areas with major highways. (See p. 8.)

Lack of regional priorities

The Regional Commission established 21 corridors within which the development highways would be built. (See app. I for map of corridors.)

The development highway system as planned by the Regional Commission was designed to connect with the Interstate Highway System in and surrounding Appalachia to provide access to isolated areas. The Regional Commission, however, did not establish construction priorities directed toward achieving the greatest contributions toward program goals at the earliest

practicable time, nor did it determine whether priorities established by the States were directed toward that end. (See p. 9.)

Instead, the Regional Commission allocated the Federal funds available on the basis of the estimated cost of the highways authorized for each State. The States, in effect, were allowed to set their own priorities, regardless of the extent to which they might further regional accessibility. (See p. 9.)

About 50 percent of the highways of the development highway system have been constructed or planned for construction with the Federal funds authorized. Some of the highway segments do not significantly increase accessibility to and through the region. They do, however, ease local traffic congestion and improve local accessibility.

Cognizant committees of the House and the Senate have pointed out that, although it was recognized that the development highways would ease traffic congestion in some parts of Appalachia, they were not to be designed and built with that objective in mind. Rather, they were to be designed and built as instruments of economic development--to open up isolated regions. (See p. 9.)

GAO believes that the Regional Commission should have given priority to projects that would have provided the greatest accessibility to and through the region at the earliest possible time and that funds should have been allocated on the basis of those priorities and of the ability of each State to proceed. (See p. 13.)

Unappropriated funds

About \$345 million of the program funds have not been appropriated, and as of February 1971 about \$78 million had been appropriated but not obligated. Thus an opportunity still exists for the Regional Commission to give priority to projects that would contribute most toward improving accessibility to and through the region. (See p. 30.)

Cost increases of the highway system

The Regional Commission's current estimated cost of the development highway system is about \$3.85 billion, an increase of \$2.65 billion over its original estimate. The current estimate was compiled in a more reliable manner than was the initial one, and part of the increase resulted from more realistic cost estimating.

In addition, changes in program requirements subsequent to the start of the program contributed to the increase. The changes included increases in the number of miles of four-lane highways to be built and in the total number of miles of highway to be constructed. Also new Federal requirements, including safety standards and design hearings, were imposed. (See p. 22.)

RECOMMENDATIONS OR SUGGESTIONS

The Regional Commission should establish priorities for further construction and should use remaining funds on projects that will contribute most toward program goals. (See p 30)

AGENCY ACTIONS AND UNRESOLVED ISSUES

The Regional Commission disagreed with GAO's conclusions that priorities for highway construction should have been established on a regional basis and that funds should have been allocated to projects having the highest regional priorities.

The Regional Commission said that it believed that GAO had somewhat overstated the problem of highway fragmentation that resulted from permitting the States to set their own priorities. The Regional Commission cited these reasons, among others, for its program procedures.

- Some States were not ready to provide the required matching funds when the act was passed.
- New layers of organization and procedures would have been necessary to carry out the program on a regional basis, therefore the Regional Commission followed regular Federal-aid highway procedures, under which priorities are established by the States.
- Delays in State funding and the need to resolve local problems would have prohibited completion of all the corridors in their entirety.
- Recommendations of the Governors must carry heavy weight with the Regional Commission in matters affecting their States (See p. 28)

GAO believes that some of the difficulties, such as delays in State funding and the need to resolve local problems, would exist regardless of program procedures. The decision to follow the normal Federal-aid highway procedures, with priorities set locally, however, is not in consonance with the Congress' recognition of the need for a regional program, in GAO's opinion. (See pp 27 and 28)

MATTERS FOR CONSIDERATION BY THE CONGRESS

The Congress may wish to consider requiring the Regional Commission to adopt a regional approach to the construction of the development highway system, allocating remaining funds to projects having the highest priorities in increasing accessibility to and through the region

The Congress is currently considering legislation to authorize an additional \$925 million as the Federal share to complete the system. In

considering that and similar future legislation, the Congress may wish to take note of the manner in which the Regional Commission administered the Appalachian Development Highway Program.

GAO believes that the organization directing any future regional development program will need to exercise strong leadership to ensure that State actions provide the greatest benefit to the region as a whole.

C o n t e n t s

	<u>Page</u>
DIGEST	1
CHAPTER	
1 INTRODUCTION	5
2 LIMITED PROGRESS TOWARD ACHIEVING GOALS OF APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM	9
Allocating funds and establishing pri- orities	12
Program results	14
3 INCREASES IN ESTIMATED COST TO CONSTRUCT DEVELOPMENT HIGHWAY SYSTEM	22
Unrealistic cost estimates	23
Additional mileage and increased con- struction of four-lane highways	24
Additional Federal requirements	24
4 AGENCY COMMENTS AND OUR EVALUATION	27
5 CONCLUSIONS, RECOMMENDATION, AND MATTERS FOR CONSIDERATION BY THE CONGRESS	30
Conclusions	30
Recommendation	30
Matters for consideration by the Con- gress	30
6 SCOPE OF REVIEW	32
APPENDIX	
I Map of Appalachian Development Highway System	35
II Letter dated February 17, 1971, from the Appalachian Regional Commission to the General Accounting Office	37
III Officials responsible for the administration of activities discussed in this report	42

D I G E S T

WHY THE REVIEW WAS MADE

The Appalachian Regional Development Act of 1965 was enacted to promote the economic development of the Appalachian region on a coordinated and concerted regional basis. Studies and congressional hearings preceding passage of the act emphasized that an adequate transportation system was the first requisite for successful economic development of Appalachia. The General Accounting Office (GAO) in its review sought to determine whether the Appalachian development highway system was achieving the objective established for it--to increase accessibility to, through, and within the region.

FINDINGS AND CONCLUSIONS

Limited progress has been made toward accomplishing the objective of the development highway system, as discussed below.

The act authorized \$1.768 billion in Federal funds for a 6-year development effort and established the Appalachian Regional Commission to plan and coordinate it.

About \$1.165 billion was earmarked for the development highway program. Of that amount, about \$1.08 billion was for construction or improvement of development highways to open up isolated areas.

About \$80 million was for building access roads to connect industrial sites and recreational areas with major highways. (See p. 8)

Lack of regional priorities

The Regional Commission established 21 corridors within which the development highways would be built. (See app. I for map of corridors.)

The development highway system as planned by the Regional Commission was designed to connect with the Interstate Highway System in and surrounding Appalachia to provide access to isolated areas. The Regional Commission, however, did not establish construction priorities directed toward achieving the greatest contributions toward program goals at the earliest

practicable time, nor did it determine whether priorities established by the States were directed toward that end. (See p. 9.)

Instead, the Regional Commission allocated the Federal funds available on the basis of the estimated cost of the highways authorized for each State. The States, in effect, were allowed to set their own priorities, regardless of the extent to which they might further regional accessibility. (See p. 9.)

About 50 percent of the highways of the development highway system have been constructed or planned for construction with the Federal funds authorized. Some of the highway segments do not significantly increase accessibility to and through the region. They do, however, ease local traffic congestion and improve local accessibility.

Cognizant committees of the House and the Senate have pointed out that, although it was recognized that the development highways would ease traffic congestion in some parts of Appalachia, they were not to be designed and built with that objective in mind. Rather, they were to be designed and built as instruments of economic development--to open up isolated regions. (See p. 9.)

GAO believes that the Regional Commission should have given priority to projects that would have provided the greatest accessibility to and through the region at the earliest possible time and that funds should have been allocated on the basis of those priorities and of the ability of each State to proceed. (See p. 13.)

Unappropriated funds

About \$345 million of the program funds have not been appropriated, and as of February 1971 about \$78 million had been appropriated but not obligated. Thus an opportunity still exists for the Regional Commission to give priority to projects that would contribute most toward improving accessibility to and through the region. (See p. 30.)

Cost increases of the highway system

The Regional Commission's current estimated cost of the development highway system is about \$3.85 billion, an increase of \$2.65 billion over its original estimate. The current estimate was compiled in a more reliable manner than was the initial one, and part of the increase resulted from more realistic cost estimating.

In addition, changes in program requirements subsequent to the start of the program contributed to the increase. The changes included increases in the number of miles of four-lane highways to be built and in the total number of miles of highway to be constructed. Also new Federal requirements, including safety standards and design hearings, were imposed. (See p. 22.)

RECOMMENDATIONS OR SUGGESTIONS

The Regional Commission should establish priorities for further construction and should use remaining funds on projects that will contribute most toward program goals (See p 30)

AGENCY ACTIONS AND UNRESOLVED ISSUES

The Regional Commission disagreed with GAO's conclusions that priorities for highway construction should have been established on a regional basis and that funds should have been allocated to projects having the highest regional priorities.

The Regional Commission said that it believed that GAO had somewhat overstated the problem of highway fragmentation that resulted from permitting the States to set their own priorities. The Regional Commission cited these reasons, among others, for its program procedures.

- Some States were not ready to provide the required matching funds when the act was passed.
- New layers of organization and procedures would have been necessary to carry out the program on a regional basis, therefore the Regional Commission followed regular Federal-aid highway procedures, under which priorities are established by the States.
- Delays in State funding and the need to resolve local problems would have prohibited completion of all the corridors in their entirety.
- Recommendations of the Governors must carry heavy weight with the Regional Commission in matters affecting their States. (See p. 28.)

GAO believes that some of the difficulties, such as delays in State funding and the need to resolve local problems, would exist regardless of program procedures. The decision to follow the normal Federal-aid highway procedures, with priorities set locally, however, is not in consonance with the Congress' recognition of the need for a regional program, in GAO's opinion. (See pp 27 and 28)

MATTERS FOR CONSIDERATION BY THE CONGRESS

The Congress may wish to consider requiring the Regional Commission to adopt a regional approach to the construction of the development highway system, allocating remaining funds to projects having the highest priorities in increasing accessibility to and through the region

The Congress is currently considering legislation to authorize an additional \$925 million as the Federal share to complete the system. In

considering that and similar future legislation, the Congress may wish to take note of the manner in which the Regional Commission administered the Appalachian Development Highway Program.

GAO believes that the organization directing any future regional development program will need to exercise strong leadership to ensure that State actions provide the greatest benefit to the region as a whole.

CHAPTER 1

INTRODUCTION

The Appalachian region stretches diagonally across the eastern United States between the populated eastern seaboard and the industrial Middle West and includes the State of West Virginia and parts of the States of Alabama, Georgia, Kentucky, Maryland, Mississippi, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, and Virginia. For numerous reasons this region lags behind the rest of the Nation in terms of prosperity and economic growth.

The Appalachian Regional Development Act of 1965, as amended (40 U.S.C. app. I), authorized a special 6-year development effort designed to assist the region in (1) meeting its special problems, (2) promoting its economic development, and (3) establishing a framework for joint Federal and State efforts toward providing the basic facilities essential to growth, attacking common problems, and meeting common needs on a coordinated and concerted regional basis.

The Regional Commission, which was established by the act to plan and coordinate various special programs that were authorized, comprises a Federal cochairman appointed by the President and the Governor (or his designee) of each of the 13 participating States. Decisions by the Regional Commission require an affirmative vote by a majority of the State members. Also the Federal cochairman must approve all projects under the program. Each State, however, was granted veto power over acceptance of programs within its boundaries.

To assist in the economic development of the region, the act authorized Federal funds for highway and nonhighway programs. The nonhighway programs involve demonstration health facilities, land utilization and conservation, private non-profit timber development and marketing, mine restoration, housing, vocational education, sewage treatment, and water resource studies.

The major part of the highway program involves the construction of a system of development highways. The House and Senate Committees on Public Works, in reporting on the bill to assist in the development of the Appalachian region

(H. Rept. 51 and S. Rept. 13, 89th Cong., 1st sess.), emphasized the importance of the development highway system to the economic development of the region. The Senate report states, in part

"Transportation and Access

"The isolation of Appalachia and the neglect which is the major cause of its economic ills are directly attributable to the lack of adequate access to, from, and within the region. In testimony before this committee, it has been apparent that a comprehensive developmental highway system is the most important aspect of the program for Appalachia.

"In the report of the President's Appalachian Regional Commission, the point is made.

'The remoteness and isolation of this region lying directly adjacent to the greatest concentrations of people and wealth in the country, is the very basis of the Appalachian lag.'

"The report of the President's Commission gave the highway problem 'a double priority of emphasis,' concluding its section on highways with the statement that:

'Its (Appalachia) penetration by an adequate transportation network is the first requisite of its full participation in industrial America.'

"The committee is charged with the primary legislative responsibility in the Senate for highway development in the United States. During the hearings *** and in previous hearings on general highway legislation, the committee has received conclusive evidence from many studies which have demonstrated the impact of highways on economic development. For that reason the reported bill authorized the Appalachian Development Highway System to be built in conjunction with the interstate

and primary and secondary systems. The Federal Government would contribute \$840 million from the general fund for the construction of the new development highway system which would be designed to provide access to the presently almost inaccessible subregions of Appalachia. These highways, while they would ease the traffic congestion in some parts of Appalachia, will not be constructed with that particular objective in mind. Rather they will be built as instruments of economic development to generate traffic where none presently exists. They will do so by opening up areas to development which, because of their present remoteness and isolation have not been developed.

"Appalachia is a land of promise. Its natural resources foretell both its industrial and recreational future. Until its natural resources can be moved swiftly to their processing sites and then to their markets they will remain an unrealized potential. Tourism, upon which a substantial part of Appalachia's future prosperity will rest, cannot be exploited until travel-time both into and within the region is improved. The Appalachian development highway system will provide the means to insure that this industrial and recreational potential is realized.

"The funds for this program will be provided from the general fund. There will be no reliance upon the highway trust fund and thus no threat is offered to that fund's fiscal integrity.

"The States in Appalachia have put a disproportionate amount of their primary aid highway funds into their Appalachian areas. *** the President's Appalachian Regional Commission documents that point. The participating States will provide \$360 million of their own scarce funds to build the 2,350-mile development system." (Underscoring supplied.)

The House report on the same bill included almost identical language in discussing the importance and purpose of the development highway system.

The development highways that have been authorized under the act are major roads designed to open up isolated areas having development potential and to link such areas with the Interstate Highway System and other Federal-aid highways in the region.¹ The Federal share of the cost of constructing the development highways is limited to 70 percent of the cost of a two-lane highway and 50 percent of the cost of a four-lane highway.

The Regional Commission in 1970 estimated the total cost of the development highway system is to be about \$3.85 billion, an increase of about \$2.65 billion over its initial estimate in 1963 of \$1.2 billion.

The Federal share of the highway program, as authorized by the act, as amended, is \$1.165 billion. Of this \$1.165 billion, about \$1.08 billion was for the development highway system, about \$80 million was for the construction of access roads to connect industrial sites or recreational areas with the major highways in the region, and the remaining \$5 million was for administrative expenses associated with the construction of the development highways and access roads. Through fiscal year 1971, about \$820 million has been appropriated for the highway program.

As of February 1971, about \$657 million, or about 61 percent, of the Federal funds authorized for the development highway system had been obligated and about 33 percent of the system had been constructed or was under construction. An additional 20 percent of the system, estimated to cost about \$423 million, has been planned for construction.

¹The National System of Interstate and Defense Highways is a 42,500-mile system of highways linking the major metropolitan areas of the country. Other Federal-aid highways include (1) the Federal-aid primary system, consisting of important city-to-city, interstate, and intrastate highways serving essentially through traffic, (2) the Federal-aid secondary system, consisting of routes serving local traffic, and (3) extensions of these two systems into urban areas.

CHAPTER 2

LIMITED PROGRESS TOWARD ACHIEVING GOALS OF

APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM

About 50 percent of the highways of the development highway system have been constructed or are planned for construction with the Federal funds authorized. It appears that in many cases the highways constructed or planned for construction will improve access to certain areas within the region and will provide benefits by easing local traffic congestion. Limited progress has been made, however, toward the program objective of increasing accessibility to and through the Appalachian region. The cognizant committees of both the House and the Senate pointed out, at the time the program was recommended for approval, that, although it was recognized that the development highways would ease the traffic congestion in some parts of Appalachia, they were not to be designed and constructed with that particular objective in mind. Rather, they were to be designed and built as instruments of economic development--opening up for development, areas which, because of their remoteness and isolation, had not been developed.

The act authorized a 6-year highway program and allocated about \$805 million for the development highway system. The highway system as planned by the Regional Commission was designed primarily to connect with the Interstate Highway System in and surrounding Appalachia to provide access to the almost inaccessible regions of Appalachia. The Regional Commission believed that Federal financial participation would be limited to the amount authorized and recognized early in the program that available Federal funds would not be sufficient to complete the entire highway system. The Regional Commission, however, did not take appropriate action to establish priorities to ensure that the objectives of the development highway system would be accomplished to the extent possible within the available funds.

The Regional Commission allocated funds to provide each State with a proportionate share of the Federal funds available on the basis of the estimated cost to construct the total miles of highways authorized in each State. Each

State was permitted, in effect, to establish its own construction priorities regardless of the extent to which such priorities might further regional accessibility

As a result of these circumstances, completion of those portions of highways as currently designated by the individual States and approved by the Regional Commission will result in the construction throughout Appalachia of segments of highways, some of which do not significantly increase the accessibility to and through the region. Although some increased mobility will result from the construction of these highway segments, some of the communities served by these segments will remain relatively isolated unless the completed segments are connected to the Interstate System.

We believe that a need exists for the Regional Commission to assume a leadership role by establishing highway construction priorities directed toward accomplishing the objective of the development highway system. Of the funds authorized for the program, about \$345 million of funds have not been appropriated, and as of February 1971 about \$78 million had been appropriated but not obligated. Therefore, with respect to these funds, an opportunity still exists for the Regional Commission to place priorities on completing those projects which would contribute most toward the accomplishment of the program goal--improving accessibility to, through, and within the region--at the earliest practicable time.

The Appalachian Regional Development Act of 1965 authorized the construction or reconstruction of 2,350 miles of highways. Subsequent amendments to the act increased the number of miles of highway which could be constructed or improved to 2,700. The size of the highway system itself, however, could be greater than the 2,700 miles of highway authorized if the Regional Commission were to decide that existing highways not in need of improvement should be part of the system. Existing highways which became part of the system were, in most cases, part of the primary and secondary systems of the Appalachian States.

The Regional Commission was directed by the act, as amended, to establish

1. The general corridor location--routes the highways would follow through the region.
2. The designation of local access roads to be constructed.
3. The priorities for construction of the local access roads and the major segments of the development highways.

The Regional Commission has approved a development highway system 2,954 miles in length and located along 21 corridors in 10 of the 13 Appalachian States. About 2,530 miles of highways in this system are considered inadequate, requiring either new construction or improvement, and are eligible for financing under the act.

The Regional Commission did not contemplate highway construction or improvements in South Carolina, Alabama, or Mississippi because these States either were reasonably well served by the Interstate System or were included as part of the Appalachian region after the development highway system had been established.

The locations of the corridors were selected and approved by the Regional Commission as part of the development highway system on the basis that they would benefit overall regional development by accomplishing one or more of the following objectives.

1. Link major economic centers in Appalachia to the Interstate Highway System.
2. Provide access between key markets surrounding the Appalachian region.
3. Provide access to large areas of Appalachia having significant potential for recreational development.
4. Provide greater access to major job centers in and around Appalachia.

ALLOCATING FUNDS AND ESTABLISHING PRIORITIES

The Regional Commission allocated Federal funds to the States on the basis of its cost estimate for the miles of highways requiring construction in each State. The Regional Commission allocated the Federal funds on this basis because of its conviction that Federal financial participation in the construction of the development highway system would be limited to the \$805 million originally authorized by the act and because of its desire to ensure that each State would receive a share of the funds. Each of the States in the region established its own priorities and was permitted to use Federal funds to construct the highest priority project within its boundaries. The Regional Commission did not establish construction priorities directed toward achieving the greatest contributions toward program goals-- improving accessibility to, through, and within the region-- at the earliest practicable time, nor did it determine whether the priorities established by the States were directed toward that end.

As early as July 1965--shortly after passage of the act--the Regional Commission was aware that the Federal funds authorized were considerably less than those needed to complete the entire system. It therefore initiated action to establish a system of priorities for the construction of the development highway system. The States were requested to identify the adequate and inadequate sections of existing highways within the established corridors. On the basis of information furnished by the States, the Regional Commission established a tentative priority listing for each State. The highest priority was assigned to those projects which had been approved for construction by the Regional Commission as of July 1, 1966, without first determining whether these projects should have had the highest priorities in terms of increasing the accessibility to and through the region.

The tentative priority listing showed which of the remaining projects could be constructed with the Federal funds allocated to the States. Construction of the remaining miles of inadequate highway was to be deferred.

In August 1966 the Regional Commission requested each State to review the tentative priorities, recommend appropriate revisions, and furnish supporting information for its recommendations by mid-September 1966. The Regional Commission, in turn, was to review the States' recommended revisions and revise the tentative priorities.

Our detailed review of the programs in Kentucky and West Virginia showed that highway officials of those States had objected to the Regional Commission's tentative priorities because they did not correspond with the States' priorities. Each State submitted to the Regional Commission a recommended list of projects which placed the highest priority on projects that had been approved for construction by the Regional Commission as of July 1, 1966. The lists submitted by Kentucky and West Virginia also included other projects in the highest priority category that differed from the tentative priority listing that had been established by the Regional Commission. The Regional Commission accepted Kentucky's and West Virginia's recommendations generally as they were submitted and, in effect, permitted the States to establish their own priorities.

We believe that the Regional Commission should have established priorities for the completion of projects which would have provided the greatest accessibility to and through the region at the earliest possible time and should have allocated funds on the basis of the priorities established and the ability of each of the States to proceed. One approach the Regional Commission might have taken would be to concentrate on constructing highways connecting with the Interstate System within and surrounding Appalachia. If this approach had been taken, there would have been greater assurance that the highways which were to be constructed with available Federal funds would have improved the accessibility to the region from the economically developed areas surrounding it. Had priorities been established on this basis, some of the problems discussed in the following sections of the report could have been avoided.

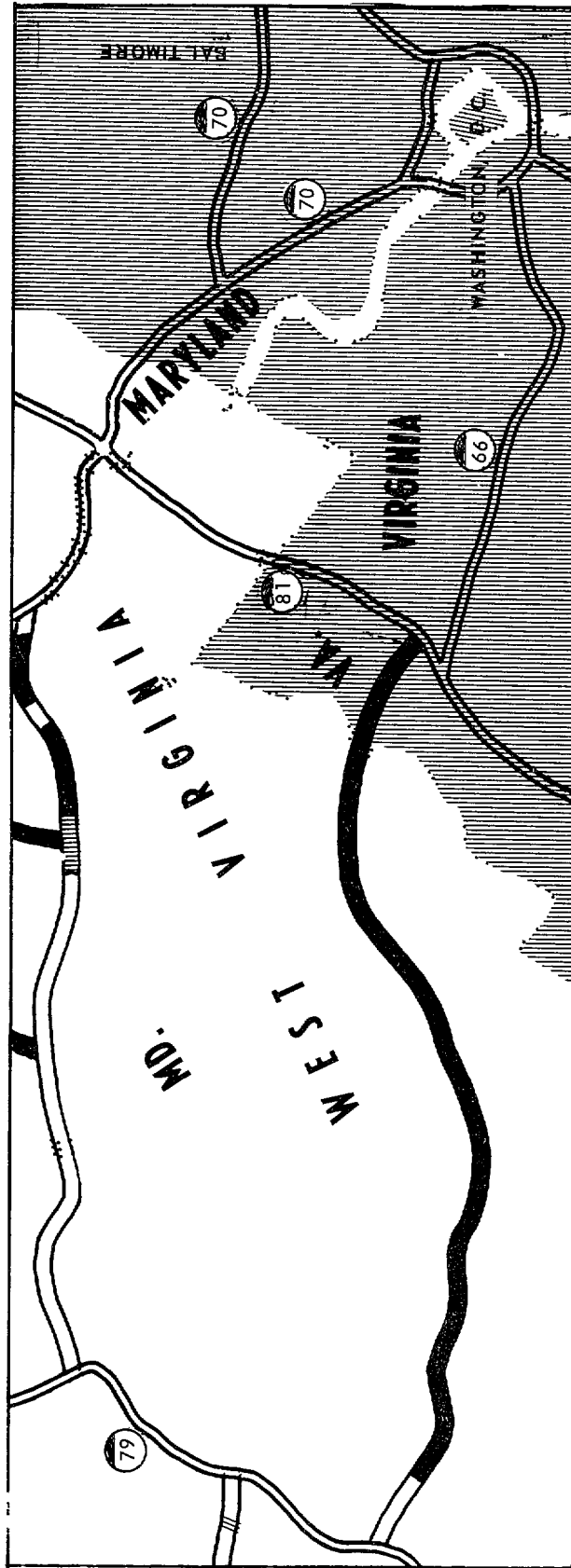
PROGRAM RESULTS

If completed, the highway system approved by the Regional Commission will provide increased accessibility to the region. However, only 1,345 of the approximate 2,530 miles of highway needing improvement are planned for construction or improvement within the presently authorized Federal funds. Although the 1,345 miles of highway represent completion of over 50 percent of the system, the segments planned for completion will be scattered throughout the participating States.

Highways on 20 of the 21 corridors required improvements. None of the highways on the 20 corridors are planned for completion in their entirety, and in many instances the segments of the highways that have been constructed or are planned for construction will not be connected to the Interstate System. If completed, rather lengthy segments of the corridors which are not planned for construction would enhance the accessibility to and through the region sought under the program.

The following examples are illustrative of the manner in which the highway system was constructed.

1. East-west corridors--The system included two corridors to provide access to the region from the populous Baltimore, Maryland, and Washington, D.C., metropolitan areas. As can be seen on the following map, neither of these corridors is planned for construction in its entirety and the major part of the southern corridor has been deferred.



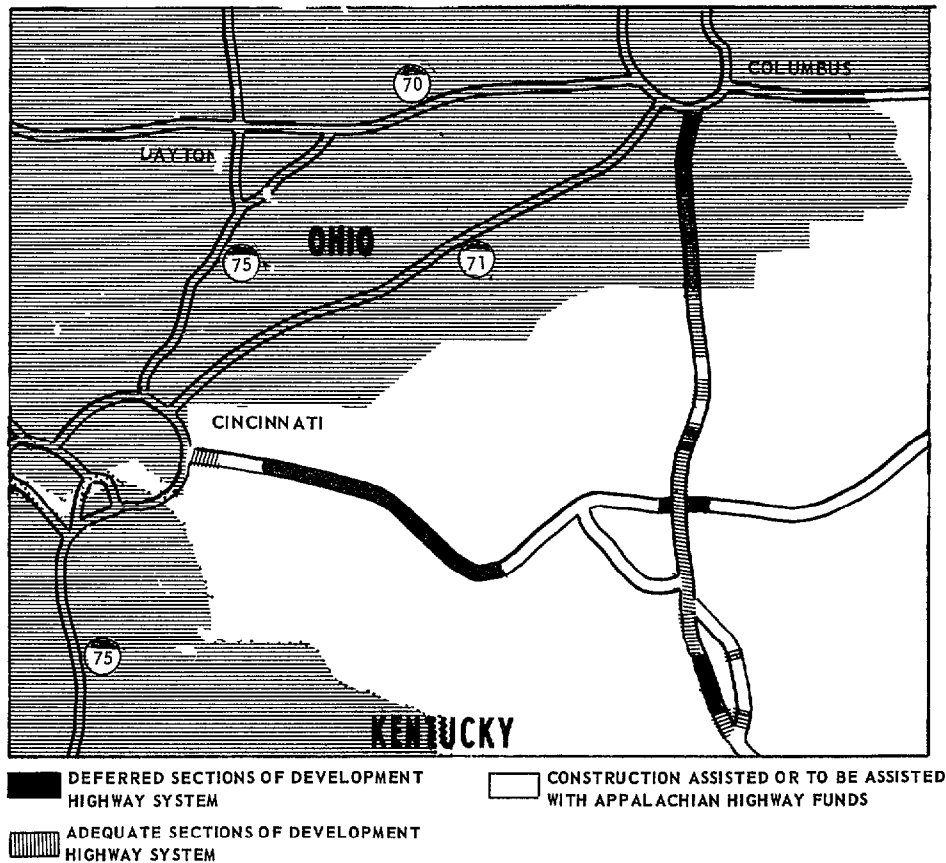
CONSTRUCTION ASSISTED OR TO BE ASSISTED WITH APPALACHIAN HIGHWAY FUNDS

DEFERRED SECTIONS OF DEVELOPMENT HIGHWAY SYSTEM

ADEQUATE SECTIONS OF DEVELOPMENT HIGHWAY SYSTEM

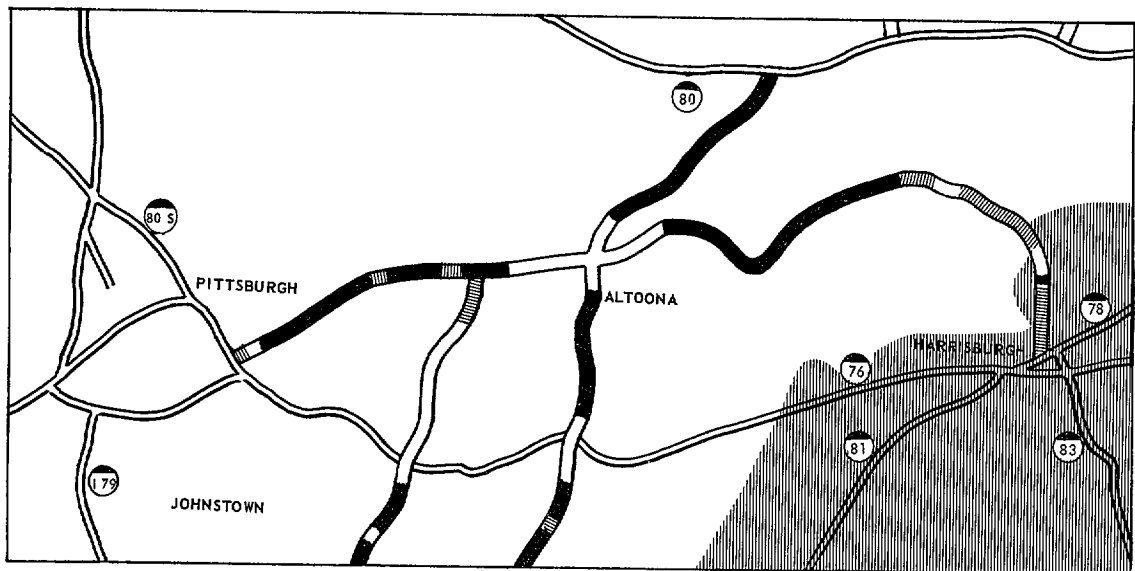
Although West Virginia and Maryland constructed a significant part of the northern corridor and thereby increased the accessibility of the area traversed by the corridor to an interstate highway in Appalachia, Maryland deferred construction of sections of this corridor which would complete the link from the Baltimore and Washington metropolitan areas. Unless these sections are completed, the primary purpose of the corridor--to provide a major highway in that part of Appalachia to increase accessibility from the Baltimore and Washington areas--will not be accomplished.

Although sections of highways providing increased local mobility were being constructed throughout Appalachia, as can be seen by the following map, a lengthy section of highway which would have increased accessibility to and from the Cincinnati and Dayton, Ohio, and Indianapolis, Indiana, industrial areas was deferred.



2. Increasing local mobility--In establishing the system, the Regional Commission determined that there was a need to connect Altoona, Pennsylvania, to the Interstate Highway System which would provide greater access between Altoona and such industrial centers as Pittsburgh and Philadelphia, Pennsylvania (via Interstate Route 76) and New York City (via Interstate Route 80).

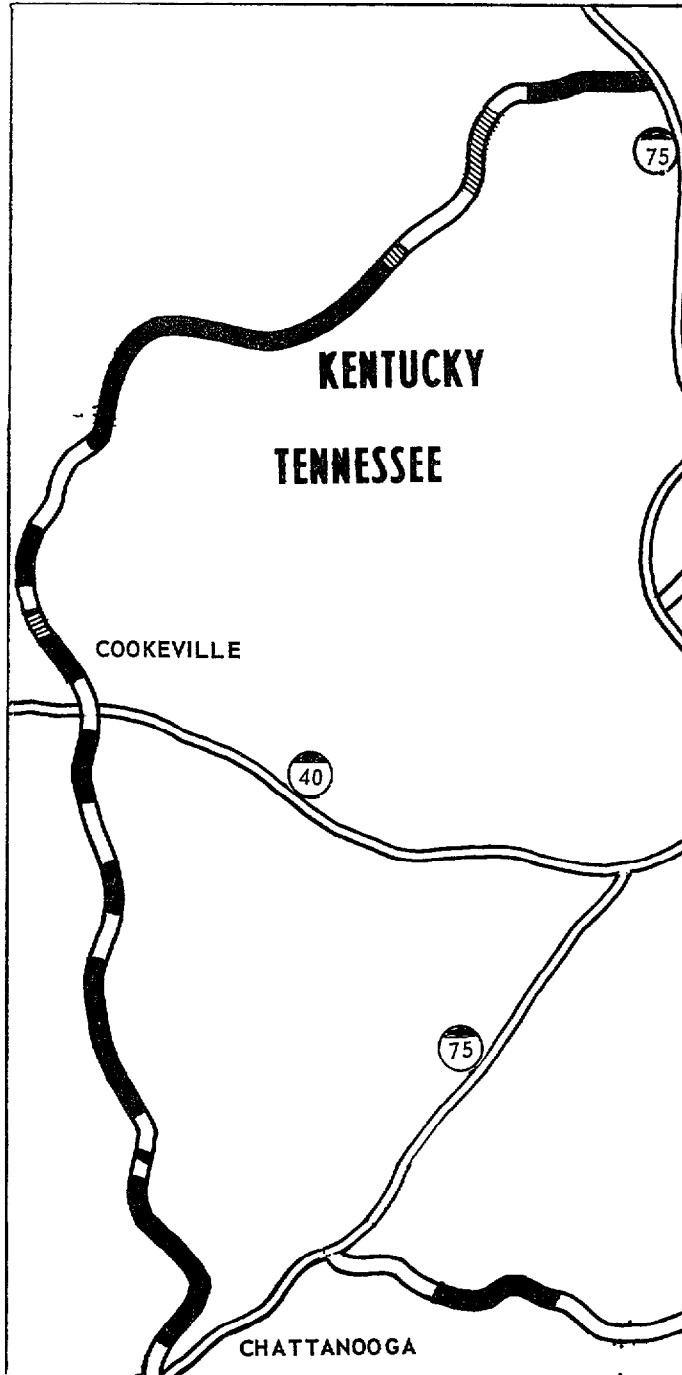
As can be seen by the following map, highways have been constructed or are planned for construction in and around Altoona that will increase local mobility. For the most part, however, the sections of development highways which would provide access between Altoona and the non-Appalachia regions have been deferred.






■ DEFERRED SECTIONS OF DEVELOPMENT HIGHWAY SYSTEM
▨ ADEQUATE SECTIONS OF DEVELOPMENT HIGHWAY SYSTEM
□ CONSTRUCTION ASSISTED OR TO BE ASSISTED WITH APPALACHIAN HIGHWAY FUNDS

Another example of constructing highways to provide increased local mobility is a corridor which was designed to open up areas of Tennessee and Kentucky and to link these areas with the Interstate System. Several sections of the highway on this corridor, ranging from about 3 to 14 miles in length, have been constructed or are planned for construction where communities exist, and these sections have increased or will increase mobility for those concerned with the communities.

However, some sections of the highway, ranging from about 5 to 47 miles in length, between communities have been deferred. The fragmented highway which results can be seen by the following map. The communities served by the completed sections of the highway will remain relatively isolated unless the sections of the highway between them and linking them with the area outside Appalachia are completed.

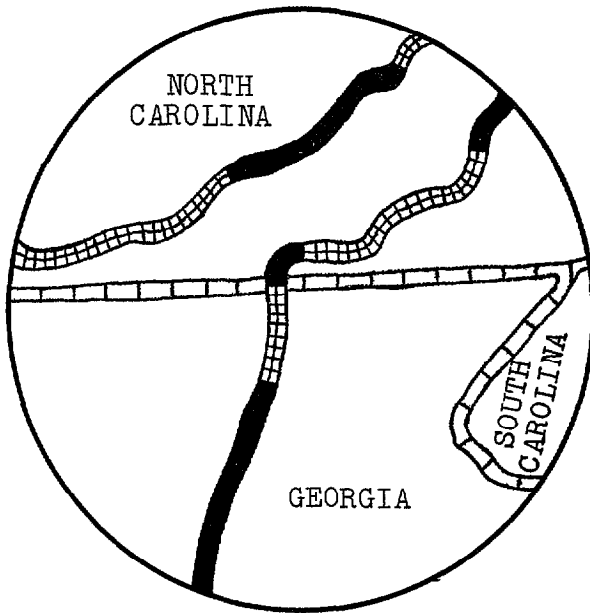
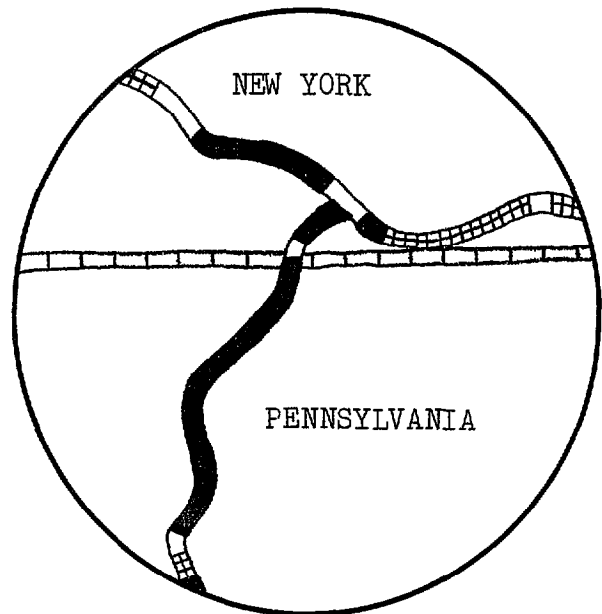
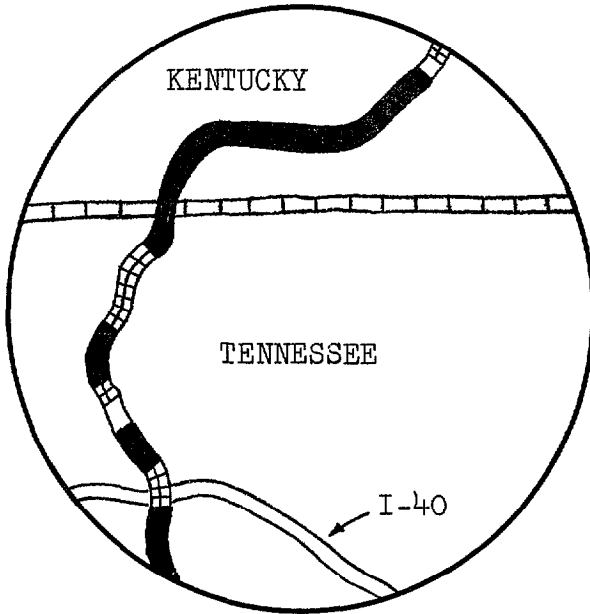


-  DEFERRED SECTIONS OF DEVELOPMENT HIGHWAY SYSTEM
-  CONSTRUCTION ASSISTED OR TO BE ASSISTED WITH APPALACHIAN HIGHWAY FUNDS
-  ADEQUATE SECTIONS OF DEVELOPMENT HIGHWAY SYSTEM






3. State-line crossings--The States' influence on the establishment of priorities is illustrated further by the circumstances that exist on the development highways at the State-line crossings. Of the 21 corridors included as part of the development system, 14 crossed State lines at 21 different locations. Of these 21 State-line crossings (1) construction of one crossing had been completed on both sides of the State line, (2) construction of one was in process on both sides of the State line, and (3) construction of 13 had been deferred on both sides of the State line because the mileage to be constructed had a low priority. The remaining six State-line crossings were in either the preliminary engineering phase or the right-of-way acquisition phase. Examples of State-line crossings are shown on page 21.

We believe that the examples on pages 14 to 21 demonstrate the need for the Regional Commission to carry out the program on a regional priority basis. Appendix I contains a map showing the system as designed and those parts of the system that have been deferred.

ILLUSTRATION OF STATE-LINE CROSSINGS



LEGEND

-  State boundary line
-  Construction to be assisted with Appalachian highway funds
-  Deferred sections of development highway system
-  Adequate sections of development highway system
-  Interstate Route 40

CHAPTER 3

INCREASES IN ESTIMATED COST TO CONSTRUCT

DEVELOPMENT HIGHWAY SYSTEM

In 1970 the Regional Commission estimated that the cost of constructing the development highway system would be about \$3.85 billion, an increase of about \$2.65 billion over the initial estimate of \$1.2 billion developed in 1963. The Federal share of the development highway system is currently estimated to be about \$1.97 billion, an increase of about \$1.16 billion over the initial Federal share of \$805 million when the act was passed.

The higher 1970 cost estimate resulted, in part, from the development of more realistic estimates after the development highway program was initiated. In addition, several changes in program requirements resulted in increases in the estimated costs. These changes related to (1) an increase in the number of miles of highways to be constructed, (2) an increase in the number of miles of four-lane highways to be constructed, and (3) new Federal requirements related to safety, relocation allowances, and public design hearings.

We recognize that many of the program changes may be necessary and may be beneficial to those who use or who are affected by the highways. These program changes were not known at the initiation of the program and consequently could not have been provided for in estimating the initial system costs. The part of the increase attributable to the development of more realistic cost estimates could have been avoided, however, if more reliable cost estimates had been developed at the initiation of the program. Reliable cost estimates are necessary to enable the Congress to make sound decisions concerning the merits of a program and the Federal funds to be authorized to carry it out. Because of the unrealistic cost estimates and the changes in program requirements, the currently authorized funds are sufficient to complete only about 50 percent of the planned development highway system.

A further explanation of the manner in which the cost estimates were compiled and the effects of the changes in program requirements follows.

UNREALISTIC COST ESTIMATES

Kentucky and West Virginia did not develop the initial cost estimates for the construction of the development highway system in the usual manner of applying the latest available cost data to the estimated quantities of materials and labor to be used based on detailed plans.

For example, West Virginia compiled its initial cost estimates by applying to the total development highway mileage to be constructed in the State, an estimated per mile cost for two highways which were to be part of the development highway system. The cost estimates for these two highways had been developed earlier--one several years before. The State then adjusted the cost estimate to recognize some cost increases up to about 1963. The resulting cost estimate was further adjusted to take into consideration the terrain over which the other Appalachian corridors in the State were to be constructed. No provision was made for possible increases in cost during the construction period.

West Virginia highway officials recognized that the procedures used had resulted in an unreliable estimate and cautioned the Regional Commission against undue reliance on the data. The data was used by the Regional Commission, however, to compile its initial cost estimates.

Although we did not make a detailed analysis of the subsequent cost estimates developed by the States and used by the Regional Commission, those estimates had been compiled in a more reliable manner--using the most recent cost data available and the quantities of materials and labor to be used and taking into consideration the location of the highways. No provision was made for increases in costs during the construction period, however, in compiling the subsequent cost estimates. West Virginia officials informed us that it was not customary to include a provision for inflation in compiling highway cost estimates. The absence of such a provision, especially during a period of rising construction costs such as that experienced from 1965 to 1970

when construction costs increased about 7 percent a year, makes it likely that the most recent cost estimate may be substantially lower than the actual cost.

In 1970 the Regional Commission estimated that refinements in cost estimates accounted for about \$100 million of the increased Federal share. Inflation, on the other hand, accounted for about \$500 million of the increased Federal share.

ADDITIONAL MILEAGE AND INCREASED CONSTRUCTION OF FOUR-LANE HIGHWAYS

At the initiation of the program, about 2,100 miles of highway on the system were considered inadequate and in need of improvement. Since that time, about 400 miles of highways needing improvement have been added to the system. According to the Regional Commission's estimates, the additional mileage increased the Federal share of constructing the system by about \$300 million.

In addition, the States decided that more of the highways should be four-lane highways, rather than two-lane highways as originally planned. Although the Federal share of a four-lane highway is 50 percent, compared with 70 percent for a two-lane highway, the decision that there should be more four-lane highways increased the Federal share by about \$85 million.

ADDITIONAL FEDERAL REQUIREMENTS

Several new Federal requirements for construction of highways that were adopted after the initial cost estimates were developed have resulted in significant increases in the cost estimates. In addition, the Federal requirements have resulted in delays which, in a period of rising construction costs, further contribute to the increases in the cost to complete the system. Although no firm cost data can be associated with such delays, highway construction costs have increased about 7 percent a year since 1965. We found no evidence that the new Federal requirements had influenced the establishment of priorities for the construction of the development highways.

Safety standards

The Federal Highway Administration, Department of Transportation, adopted the safety standards of the American Association of State Highway Officials in 1967. These standards, such as a 30-foot clear zone--an area on each side of a roadway that must be clear of such obstructions as rocks and trees--and full-shoulder width on all bridges, became part of the design criteria for all Federal-aid highways in the effort to make highways safer. The Regional Commission estimated that these safety standards had increased the estimated cost to complete the development highway system by about \$150 million. Also a Kentucky highway official estimated that these standards had delayed the completion of several projects in Kentucky from 9 to 12 months and thereby had further increased costs.

Relocation assistance

The Federal-aid Highway Act of 1968 (23 U.S.C. 501) provided relocation assistance to persons, businesses, farmers, and nonprofit organizations displaced as a result of Federal-aid highway programs so that they would not suffer disproportionate injuries as a result of programs designed for the benefit of the public as a whole. The provisions of this act relating to relocation assistance were repealed and replaced by the Uniform Relocation Assistance and Land Acquisition Policies Act of 1970 (84 Stat. 1894). Under the provisions of these two acts, displaced persons were to be given compensation as well as assurance that safe, decent, and sanitary dwellings were available. The Regional Commission estimated that these requirements had increased the Federal share by about \$25 million.

Our review revealed several cases where the construction of segments of the development highway system had been delayed because the States of Kentucky and West Virginia could not provide safe, decent, and sanitary housing for displaced persons. For example, in Kentucky one project was delayed about 2-1/2 months until the proper facilities could be provided. In West Virginia one project was delayed over 1 year for the same reason.

Design hearings

The design hearing is a new requirement established in January 1969 by the Federal Highway Administration to provide the persons along a proposed highway route with an opportunity to voice any objections to the precise location and major design features of a proposed highway. Our review showed that this requirement could cause as much as a 4-month delay even if no problems resulted from the hearing. If problems are encountered and a restudy of the alignment of a project is necessary, the delay could be significantly longer.

Our review of 15 projects in Kentucky and West Virginia showed that the requirement for design hearings had delayed the projects from about 3 to 16 months.

CHAPTER 4

AGENCY COMMENTS AND OUR EVALUATION

The Regional Commission, in commenting on our draft report by letter dated February 17, 1971 (see app II), expressed its belief that we had somewhat overstated the problem of highway fragmentation that had resulted because the States were permitted to establish their own priorities

The Regional Commission stated it had established a regional adequacy-rating system whereby the highest priority for construction funds was assigned to the least adequate sections or to entirely new alignments within each State. The purpose of the rating system was to ensure that, within the limited Federal funds available, as much of the development highway system as possible could be constructed to the highest overall regional adequacy.

We believe that, because the development highway system was authorized to provide greater accessibility to, through, and within the region, the Regional Commission should have established priorities designed to meet this end. Our review showed that the manner in which priorities had been assigned by the States, in many cases, had not significantly increased the accessibility to and through the region. Consequently it is apparent that permitting each State to establish priorities for improvements within the State does not necessarily contribute to the program goal

In presenting our findings to the Regional Commission, we observed that one approach the Regional Commission might have taken in allocating funds to the States was to rank the various highway corridors in terms of anticipated economic development along the route of the corridors and to fund projects within the corridors having the highest priorities.

The Regional Commission apparently interpreted this observation as a suggestion that individual corridors be completed in their order of priority. The Regional Commission provided us with a number of reasons why this approach would not be practicable.

Some of the reasons given by the Regional Commission were:

1. Some States were not ready to provide the required matching funds when the act was passed.
2. New layers of organization and procedures would have been necessary to carry out the program on a regional basis; therefore the Regional Commission followed regular Federal highway procedures under which priorities are established within the States by the States themselves.
3. Delays in State funding and the need to resolve local problems would have prohibited completion of all the corridors in their entirety.
4. The recommendations of the Governors must carry heavy weight with the Regional Commission in matters affecting their States.

It was not our intention to suggest that the program be carried out by completing corridors in their order of priority. We intended to point out to the Regional Commission that a regional program should be carried out on the basis of regional priorities. Certain problems noted by the Regional Commission, such as delays in obtaining State matching funds and the need to resolve local problems, would exist regardless of the manner in which the program was carried out. Other matters, however--such as the decision to carry out the program in accordance with the normal Federal-aid highway program procedures, which results in construction on the basis of local priorities--in our opinion do not adequately meet with the Congress' recognition of the need for establishing a regional program.

In authorizing this program the Congress recognized that, in the past, attempts at solutions to the problems of Appalachia had been made on four levels: by individuals, by local groups, by communities, and by each of the States, with the Federal Government involved at each level. In each case it was demonstrated to the Congress that success was limited by the fact that the problems were truly regional in scope but that the solutions were proposed on a piecemeal basis.

Therefore the Congress supported the regional program which the States had asked for and had promised to support, in the expectation that the Regional Commission would establish program priorities giving consideration to pertinent factors of economic development, including a determination of the relationship of a project request and overall regional development.

The Regional Commission did not disagree with our observations concerning cost estimates but stated that changes in cost estimates over those developed in 1963 could be attributed primarily to two factors. (1) neither time nor financial support had permitted the preparation of definitive cost estimates in 1963 and (2) the original 1963 cost estimates developed by the States had been scaled down at the request of the Federal Government because of a determination that all the required funds could not be authorized at that time.

CHAPTER 5

CONCLUSIONS, RECOMMENDATION, AND

MATTERS FOR CONSIDERATION BY THE CONGRESS

CONCLUSIONS

The Regional Commission did not establish construction priorities directed toward achieving the greatest contributions toward the program goal--improving accessibility to, through, and within the region--at the earliest practicable time, nor did it determine whether the priorities established by the States were directed toward that end.

The Regional Commission adopted a passive role in the administration of the highway program and was concerned primarily with approving the actions taken by the States. As a result, those sections of the highway system that have been approved for construction within the currently authorized Federal funds will be scattered throughout the participating States and some sections do not significantly increase accessibility to and through the region.

Of the funds authorized for the program, about \$345 million have not been appropriated and as of February 1971 about \$78 million had been appropriated but not yet obligated.

RECOMMENDATION

We are recommending that the Regional Commission establish priorities for the further construction of the system on the basis of the potential for improving the overall accessibility of the region and use the remaining Federal funds under the program--about \$423 million--on the basis of the priorities established.

MATTERS FOR CONSIDERATION BY THE CONGRESS

Because of the limited progress made toward accomplishing the primary objective of the development highway system--to provide greater accessibility to and through the region--the Congress may wish to consider requiring the Regional Commission to adopt a regional approach to the construction

of the highway system. The Congress may wish also to require that the Regional Commission establish regional priorities and allocate funds to those projects having the highest regional priorities as they relate to increasing the accessibility to, through, and within the region.

The Congress is currently considering legislation which would authorize, among other things, \$925 million additional as the Federal share to complete the system. In considering this legislation and future legislation of a similar nature, the Congress may wish also to consider the manner in which the Regional Commission administered the Appalachian development highway program. We believe that the administrative organization which heads any future regional development program will need to exercise strong and effective leadership in considering and approving actions by the individual States, to ensure that such actions are directed toward providing the greatest benefit to the region as a whole.

CHAPTER 6

SCOPE OF REVIEW

Our review was conducted at the Appalachian Regional Commission headquarters in Washington, D.C., and at the highway departments of the States of Kentucky and West Virginia. These States were selected because they received a significant part of the funds for the development highways. We undertook our review to compare the progress made under the development highway program with the objective established for it in the act.

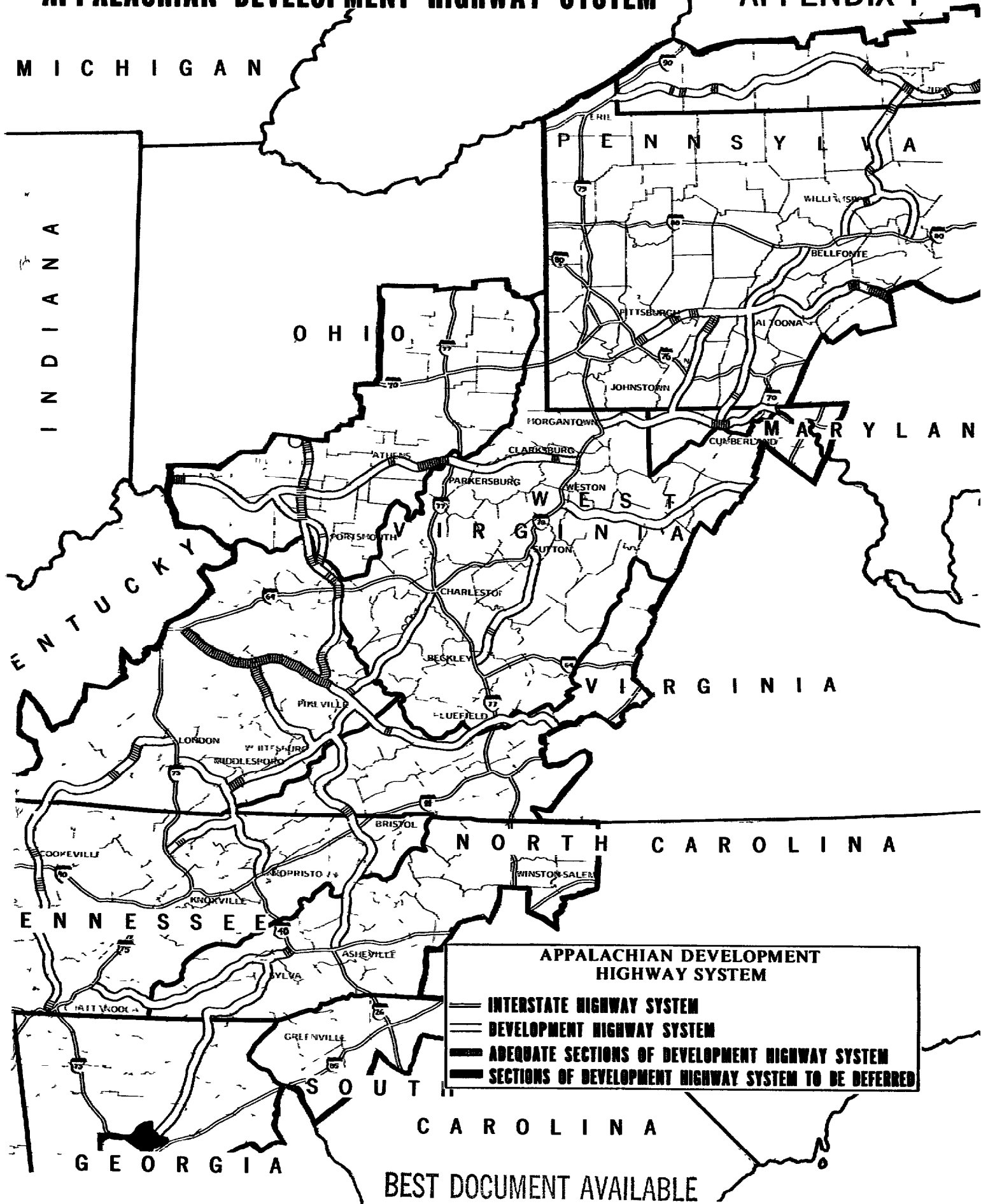
We reviewed pertinent legislation and policies and procedures of the Regional Commission. We also held discussions with appropriate officials and reviewed records of the Regional Commission and the States pertaining to the Appalachian development highway program.

APPENDIXES

1
2
3
4

APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM

APPENDIX I



BEST DOCUMENT AVAILABLE

THE APPALACHIAN REGIONAL COMMISSION

1666 CONNECTICUT AVENUE

WASHINGTON, D C 20235

February 17, 1971

Mr. Henry Eschwege
Associate Director
Civil Division
United States General
Accounting Office
Washington, D.C. 20548

Dear Mr. Eschwege:

This is in response to your request for comments on the draft report to the Congress prepared by the General Accounting Office concerning the Appalachian Development Highway System.

The report suggests that, because authorized Federal funds were insufficient to complete construction of the System, the Appalachian Regional Commission should have ranked by priority for construction each of the Appalachian development highway corridors and allocated the limited funds available by corridor in order of priority, rather than allocating funds to the participating States.

Such an alternative, among others, was considered by the Commission and was rejected because it was found to be impracticable for reasons cited later in this response.

In order to establish construction priorities within each State, the Commission devised a regional adequacy rating system. The purpose of this rating system was to assure that, within the limited Federal funds available, as much of the development highway system as possible could be constructed to the highest overall regional adequacy. Highest priority for construction funds, therefore, is assigned to the least adequate sections or entirely new alignments within each State. Such a procedure, it was determined, would be most likely to result ultimately in a regional highway network and would minimize the problems of a fragmented system should insufficient funds be made available to construct the entire System.

The Commission specifically rejected assignment of construction priorities by corridor for several reasons.

APPENDIX II

Mr. Henry Eschwege
Page 2
February 17, 1971

1. Not all States were ready to provide required matching funds immediately. For example, not until November 1968 did West Virginia get approval by the voters for \$350 million in bonds to match Appalachian funds. Virginia was ready to commit 90 percent of its total allocation immediately. To have held up States with funds on hand because higher priority corridors might have been located in other States did not appear to be a realistic approach toward constructing the overall System. In addition, local issues involved in highway construction on a given corridor can often delay construction for considerable lengths of time. It did not appear practicable to delay construction on other corridors while these local issues were being resolved.

2. One of the objectives of the Appalachian Development Program has been to improve the operations of existing Federal and State programs without creating new layers of organization and procedure.

In order to minimize the need for new procedural complications, the Commission, insofar as possible, followed regular Federal highway procedures. Under the national highway program, construction priorities are established within States by the States themselves. The Commission has followed the same procedure, except that construction must be on those segments determined to be most deficient under the adequacy rating system.

3. There are many objectives for the development highway system, some local (such as improving commutation to new jobs and services), some regional (such as facilitating the flow of national commerce through Appalachia in order to enhance regional development potential).

For these reasons, the ultimate impact of a completed Development Highway System will be greater than the impact of any of its parts. So long as the System remains uncompleted, the establishment of priorities by corridor must necessarily emphasize regional benefit criteria over local benefit criteria or vice versa. If priorities had been established by corridor based on benefits to one part of the Region, local area benefits would have been restricted to only a few parts of Appalachia. This would have limited the effectiveness of Appalachian investments in the rest of the Region whose design and function is predicated on the highways. As a result, these investments would have yielded a lesser return for the public dollars invested.

Mr. Henry Eschwege
Page 3
February 17, 1971

In any event, even if the Commission had assigned priority to such vital arteries in the System as Corridor "D-E" and Corridor "B", the corridors themselves would still not be completed. Corridor "D-E" would not be finished mainly because it was not until November 1968 that West Virginia's bond issue was approved. It was necessary also for Ohio to secure some of its matching funds through a 1967 referendum. Thus, the two key States on Corridor "D-E" would have been unable to have completed the corridor by this year and would consequently have held up other States in other parts of the Region on other corridors.

Corridor "B" would not be finished because of numerous local issues. For instance, the construction of Corridor "B" is an integral part of a model city renewal plan in Pikeville, Kentucky, involving relocation of the Big Sandy River and a railroad. The railroad, the river, and the highway are to be located in one cut to be made through a mountain adjoining Pikeville. Federal urban renewal funds for the project were not approved until early 1971, and Congress was unable to authorize the river relocation until late 1970. This is just one example of how local problems can hold up construction schedules for specific segments of each corridor. Instances of this kind illustrate the impracticability of establishing priorities by corridor. The complexities of the situation prevented that from being a realistic alternative.

The report does not provide any basis for the Commission to conclude that the regional benefits of completing a few of the corridors first would have been greater than the combined regional and local benefits being realized under the Commission's procedure. The principal priority of the Commission continues to be completion of the entire System in order that both the regional and local benefits can be fully realized. Unless this is accomplished, the investment of public dollars in the System will not yield its full return, nor will many of the other investments being made under the Appalachian Regional Development Act.

4. Under Sections 222 and 303 of the Act, the Governor of a State must recommend to this Commission specific projects for action within the State. The Commission may not compel any State to accept a project or program without its consent. Sometimes the Regional Commission may differ with a Governor concerning specific priorities. The Commission provides a forum within which such disagreements may be openly discussed and some accommodation reached.

APPENDIX II

Mr. Henry Eschwege
Page 4
February 17, 1971

However, the Governor of the State has the major responsibility under the Act for establishing priorities, and his determinations must carry heavy weight with the Commission as a whole in matters affecting his State.

The report criticizes the Commission for not having developed firmer cost estimates at the time the Act was passed.

Changes in cost estimates over those developed in 1963 can be attributed, in the main, to two factors:

First, because neither time nor financial support permitted preparation of definitive cost estimates at that time, costs had to be estimated in most States on the basis of past experience; and second, the original 1963 cost estimates developed by the States were scaled down at the request of the Federal Government itself because of a determination that all the required funds could not be authorized at that time.

Nevertheless, refinements in cost estimates and revised criteria concerning the number of lanes permitted in the System, account for only 10 percent of the total presently estimated Federal cost, a percentage far below that experienced on other federally-assisted highway programs.

The remainder of the cost increases are attributable to factors beyond the Commission's control, primarily a rate of inflation in construction costs of approximately seven percent per year, increased costs to meet new Federal highway safety standards, and increased costs to meet new Federal relocation requirements.

The Commission concurs with the report in calling attention to problems associated with State boundary crossings. So long as the States concentrated on projects located in their interior areas, the need for Commission mediation was minimal. As additional funds are made available, the Commission will be compelled to play a still stronger role in planning and adjudication. It has taken a hand in several boundary crossing issues which now exist.

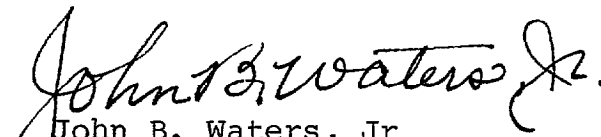
In summary, the Commission believes the report somewhat overstates the problem of fragmentation which results from the procedure of allowing States to set construction priorities.

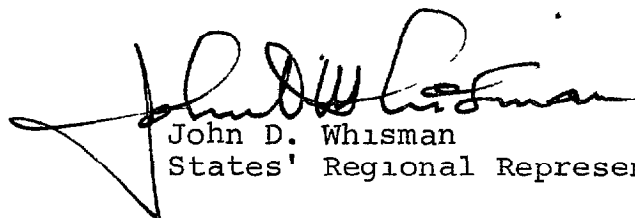
Mr. Henry Eschwege
Page 5
February 17, 1971

Since much of the Appalachian Development Highway System is replacing existing routes, the completed segments are all linked via older highways into a regional system. Improvements of these routes by priority assigned in order of adequacy will assure that an increasingly efficient regional highway system is built over the coming years.

The regional development highway system is the keystone to the success of all the efforts of this Commission. It should be a national priority to see that the System is completed in order that we may secure the greatest return for the public dollars already invested in Appalachian regional development.

Sincerely yours,


John B. Waters, Jr
Federal Cochairman


John D. Whisman
States' Regional Representative

APPENDIX III

OFFICIALS RESPONSIBLE FOR THE ADMINISTRATION OF
ACTIVITIES DISCUSSED IN THIS REPORT

	<u>Tenure of office</u>	
	<u>From</u>	<u>To</u>
FEDERAL COCHAIRMAN, APPALACHIAN REGIONAL COMMISSION:		
Donald W. Whitehead	Mar. 1971	Present
John B. Waters, Jr.	Mar. 1969	Mar. 1971
Joseph W. Fleming	Mar. 1967	Feb. 1969
John L. Sweeney	Apr. 1965	Mar. 1967

when construction costs increased about 7 percent a year, makes it likely that the most recent cost estimate may be substantially lower than the actual cost.

In 1970 the Regional Commission estimated that refinements in cost estimates accounted for about \$100 million of the increased Federal share. Inflation, on the other hand, accounted for about \$500 million of the increased Federal share.

ADDITIONAL MILEAGE AND INCREASED CONSTRUCTION OF FOUR-LANE HIGHWAYS

At the initiation of the program, about 2,100 miles of highway on the system were considered inadequate and in need of improvement. Since that time, about 400 miles of highways needing improvement have been added to the system. According to the Regional Commission's estimates, the additional mileage increased the Federal share of constructing the system by about \$300 million.

In addition, the States decided that more of the highways should be four-lane highways, rather than two-lane highways as originally planned. Although the Federal share of a four-lane highway is 50 percent, compared with 70 percent for a two-lane highway, the decision that there should be more four-lane highways increased the Federal share by about \$85 million.

ADDITIONAL FEDERAL REQUIREMENTS

Several new Federal requirements for construction of highways that were adopted after the initial cost estimates were developed have resulted in significant increases in the cost estimates. In addition, the Federal requirements have resulted in delays which, in a period of rising construction costs, further contribute to the increases in the cost to complete the system. Although no firm cost data can be associated with such delays, highway construction costs have increased about 7 percent a year since 1965. We found no evidence that the new Federal requirements had influenced the establishment of priorities for the construction of the development highways.

Duplicate

A further explanation of the manner in which the cost estimates were compiled and the effects of the changes in program requirements follows.

UNREALISTIC COST ESTIMATES

Kentucky and West Virginia did not develop the initial cost estimates for the construction of the development highway system in the usual manner of applying the latest available cost data to the estimated quantities of materials and labor to be used based on detailed plans.

For example, West Virginia compiled its initial cost estimates by applying to the total development highway mileage to be constructed in the State, an estimated per mile cost for two highways which were to be part of the development highway system. The cost estimates for these two highways had been developed earlier--one several years before. The State then adjusted the cost estimate to recognize some cost increases up to about 1963. The resulting cost estimate was further adjusted to take into consideration the terrain over which the other Appalachian corridors in the State were to be constructed. No provision was made for possible increases in cost during the construction period.

West Virginia highway officials recognized that the procedures used had resulted in an unreliable estimate and cautioned the Regional Commission against undue reliance on the data. The data was used by the Regional Commission, however, to compile its initial cost estimates.

Although we did not make a detailed analysis of the subsequent cost estimates developed by the States and used by the Regional Commission, those estimates had been compiled in a more reliable manner--using the most recent cost data available and the quantities of materials and labor to be used and taking into consideration the location of the highways. No provision was made for increases in costs during the construction period, however, in compiling the subsequent cost estimates. West Virginia officials informed us that it was not customary to include a provision for inflation in compiling highway cost estimates. The absence of such a provision, especially during a period of rising construction costs such as that experienced from 1965 to 1970

Duplicate