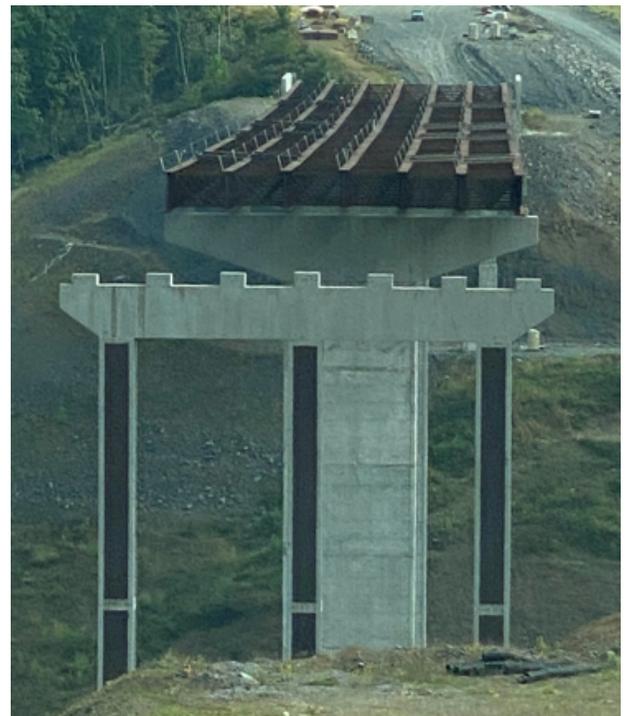




APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM

2025 Cost-to-Complete Estimate Report

February 2026



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February 2026

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The Appalachian Regional Commission would like to thank Tony DeSimone of the Federal Highway Administration and Dan Hodge of Cambridge Econometrics for their support in preparing this report.

OVERVIEW

2025 Cost-to-Complete the Appalachian Development Highway System (ADHS)

In cooperation with the Federal Highway Administration (FHWA) and the state departments of transportation (DOTs), the Appalachian Regional Commission (ARC) regularly updates the cost-to-complete estimates for the remaining unfinished ADHS corridors. The *ADHS 2025 Cost-to-Complete Estimate* is **\$15.2 billion** (in 2025 U.S. dollars), plus potentially eligible \$631 million in projects pre-financed with state funds that are eligible for federal reimbursement. As of September 30, 2025, \$1.4 billion was available to states for the ADHS. This includes unobligated federal ADHS funding apportioned to the Appalachian states, and federal discretionary grants awarded for ADHS projects along with FY 2026 Infrastructure Investment and Jobs Act (IIJA) ADHS allocations. This results in remaining funds needed to complete the construction of the ADHS of **\$14.4 billion**.

With the possibility of Congress providing additional dedicated resources for completing the ADHS, this *ADHS 2025 Cost-to-Complete Estimate* report can demonstrate the plans and priorities of state DOTs for work on specific corridors.

Authorization and Funding of the Appalachian Development Highway System

In 1964, the President's Appalachian Regional Commission (PARC) reported to Congress that economic growth in Appalachia would not be possible until the region's isolation had been overcome. Because of the high cost of building highways through Appalachia's mountainous terrain, Appalachia had never been served by adequate roads. Its network of narrow, winding, two-lane roads, snaking through stream valleys or over mountaintops, was slow to drive, unsafe and (in many places) worn out. The nation's Interstate System had largely bypassed Appalachia, going through or around the region's rugged terrain as cost-effectively as possible.

The PARC report and the Appalachian governors placed top priority on a modern highway system as the key to economic development. As a result, Congress authorized the construction of the ADHS in the Appalachian Regional Development Act (ARDA) of 1965. The ADHS was designed to generate economic development in previously isolated areas, supplement the Interstate System, connect Appalachia to the Interstate System and provide access to areas within the region as well as to markets in the rest of the nation.

For decades, the ADHS, a 3,090-mile network of highways linking the region to the Interstate System, has generated economic development across Appalachia. The ADHS's 33 corridors provide access to regional and national markets, contributing to growth opportunities and improved access in Appalachia.

Since its inception in 1965, the ADHS typically received specifically dedicated funding for its construction from Congress on a yearly basis. However, in 2012, the Moving Ahead for Progress in the 21st Century Act (MAP-21) and its successor, the Fixing America's Surface Transportation (FAST) Act, no longer provided dedicated ADHS funds to state DOTs. States were then allowed to build and complete ADHS corridors at their own discretion per a larger, more general federal allocation. As economic developers, ARC worked directly with the FHWA and state DOTs in an advisory role during this process.

In 2020, specifically dedicated funding of \$100 million was allocated to the U.S. Department of Transportation for the purpose of constructing the ADHS. This same level of funding has been provided each year since, through FY 2025, in the U.S. Department of Transportation Appropriations. The funds were distributed to the states based on their relative proportional share of the remaining work that they

have planned on the ADHS, based on the *2012 ADHS Cost-to-Complete Estimate* and adjusted to exclude those corridors that states have no plans to complete, as reported in the *2013 ADHS Completion Plan* and the *FY 2020 ADHS Future Outlook*. The funds distributed were then adjusted to ensure no state received more than 30% of the available amount.

In 2021, the IIJA provided \$250 million each year for ADHS construction from FY 2022 through FY 2026. These funds were distributed to the states based on their relative proportional share of the remaining work that they have planned on the ADHS, based on the *2021 ADHS Cost-to-Complete Estimate* and adjusted to exclude those corridors that states have no plans to complete, as reported in the *2013 ADHS Completion Plan* and the *FY 2020 ADHS Future Outlook*. The funds distributed were then adjusted to ensure each state received at least \$10 million and no state received more than 30% of the available amount. Also, no state received a distribution that exceeded the remaining funds needed.

In addition, the IIJA reserved a total of up to \$500 million for ADHS construction in the U.S. Department of Transportation Rural Surface Transportation Grant Program. In 2022, Pennsylvania was awarded \$69 million for the Central Susquehanna Valley Transportation (CSVT) Project - Southern Section, which is ADHS Corridor P1. This was the only ADHS award under this program.

Status of Completion of the ADHS

As of September 30, 2025, a total of 2,846 miles, or 92.1% of the 3,090 miles authorized for the ADHS, were either complete (2,712 miles), open to traffic with stage construction remaining/open to traffic and meeting traffic needs (72 miles), or under construction (62 miles). Another 47 miles were in the design and right-of-way acquisition phase, and 197 miles were in the location studies phase. This future work is included in the 2025 ADHS Cost-to-Complete Estimate.

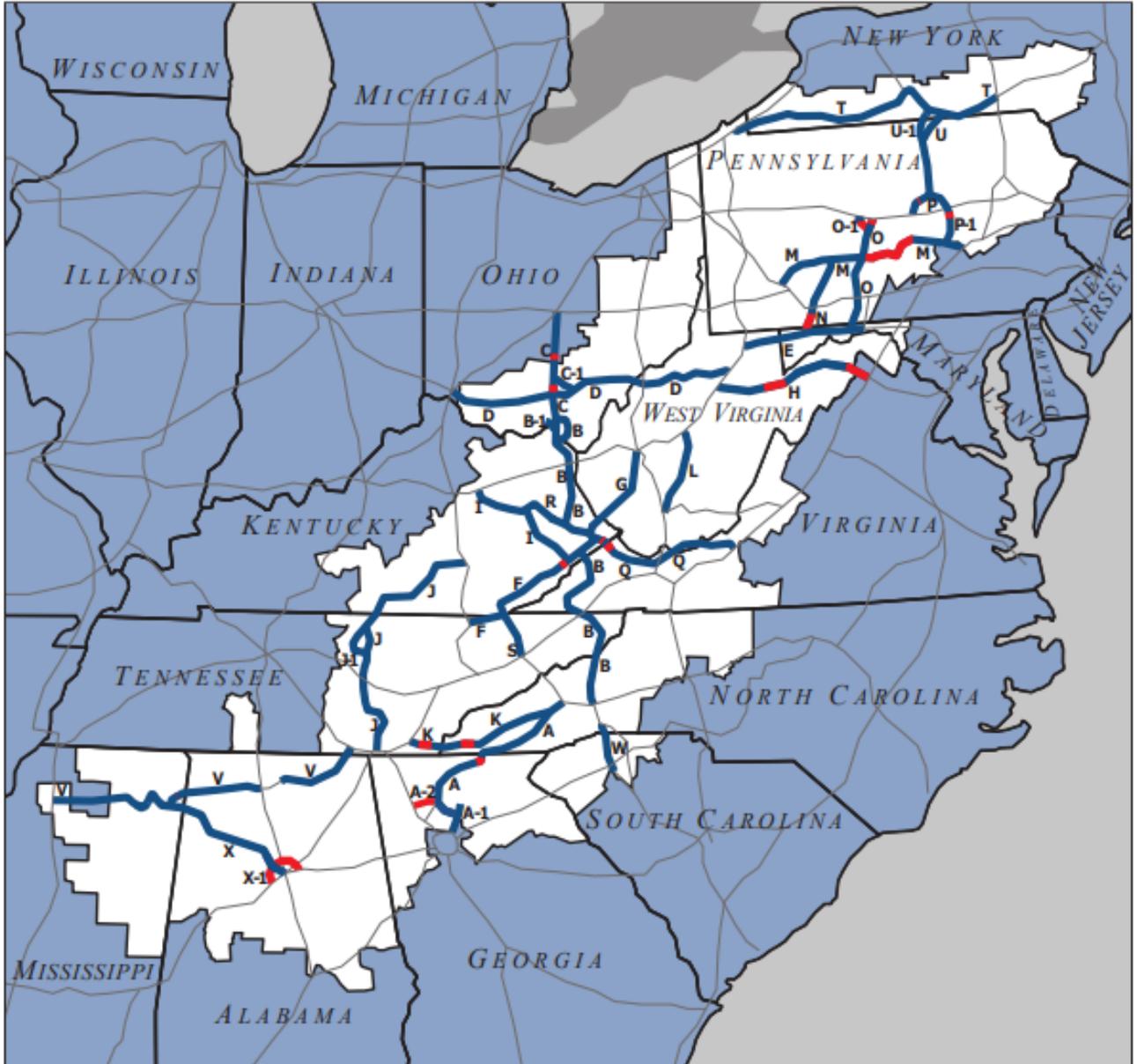
As of September 30, 2025, 57 miles have been completed since the *2021 ADHS Cost-to-Complete Estimate*.

The following map identifies the location of open ADHS corridors, as well as those that are not open to traffic. As mentioned above, the 72 miles of ADHS corridors with stage construction remaining/open to traffic and meeting traffic needs have future work scheduled to construct upgrades to complete the ultimate design.



**APPALACHIAN DEVELOPMENT
HIGHWAY SYSTEM**

as of September 30, 2025



- ADHS Miles Open to Traffic
- ADHS Miles Not Open to Traffic
- Interstate Highway System

The following table is a summary of mileage totals by future outlook category for each state, as of September 30, 2025.

Status of Completion of the ADHS (Miles) (as of September 30, 2025)

State	Total Miles Eligible for ADHS Funding	MILES NOT OPEN TO TRAFFIC			MILES OPEN TO TRAFFIC		
		Location Study Needed or Underway	Design and/or Right-of-Way Under Way	Construction Under Way	Remaining Stage Construction Needed	Partially Complete and Meeting Traffic Needs	Complete
Alabama	295.7	43.3	21.0	3.2	6.4	28.9	192.9
Georgia	132.5	6.3	15.4	9.3	0.0	0.0	101.5
Kentucky	426.3	8.0	0.0	4.2	0.0	0.0	414.1
Maryland	83.2	1.1	0.0	0.0	0.0	3.7	78.4
Mississippi	117.5	0.0	0.0	0.0	0.0	0.0	117.5
New York	222.0	0.0	0.0	0.0	0.0	0.0	222.0
North Carolina	204.3	6.4	1.2	14.0	4.5	0.0	178.2
Ohio	201.5	7.1	0.0	0.0	0.0	0.0	194.4
Pennsylvania	453.1	87.4	0.9	13.6	2.9	0.0	348.3
South Carolina	22.9	0.0	0.0	0.0	0.0	0.0	22.9
Tennessee	329.3	12.3	1.4	0.0	16.5	0.0	299.1
Virginia	192.2	14.7	2.5	2.5	0.0	9.0	163.5
West Virginia	409.6	10.3	5.0	14.9	0.0	0.0	379.4
Total	3,090	196.9	47.4	61.7	30.3	41.6	2,712.2

Notes: Totals may not add because of rounding.

2025 ADHS COMPLETION PLAN AND COST-TO-COMplete ESTIMATE

2025 Process for ADHS Completion Plan and Cost-to-Complete Estimate

Individual segments within each ADHS corridor are classified according to one of five stages of completion: complete, open to traffic with stage construction work remaining, under construction, design and right-of-way acquisition, and location studies under way. The states used this classification data in preparing their ADHS completion plans. States were also requested to provide a narrative explaining their plans to complete their ADHS corridors.

For the *ADHS 2025 Cost-to-Complete Estimate*, state DOTs were allowed to provide their estimated cost of remaining work either through planning-level or more refined estimates. ARC allowed states to utilize their own estimating methodologies for this effort. Planning estimates are usually conceptual in nature and can be based upon historic cost averages for projects with a similar scope of work and location

characteristics, such as lane-mile cost averages for roadway work or square-foot cost averages for bridge work. Cost-to-complete estimates are shown in year 2025 dollars, rather than “year of expenditure” dollars. Year 2025 dollars were used to provide a baseline comparison, because the variations in completion schedules among the states would cause inflation to significantly impact the cost-to-complete estimates for corridors projected to be completed more than 10 years out.

Since the last estimate was published in 2021, several states have found it necessary to scale back their proposed work associated with completion of the ADHS. Typically, these modifications have occurred due to: (a) the lack of dedicated funding, (b) challenges pertaining to environmental approvals, and/or (c) other competing priorities for funding within a state. States were required to document any adjustments to their completion plan, including changes to the scope and schedule for specific corridors in their submitted narratives.

States were allowed to submit pre-financed costs on ADHS projects that could be reimbursed with federal ADHS funds in the future. These are referred to as unconverted Advance Construction or pre-financed amounts. Advance Construction allows states to accelerate ADHS projects by using non-federal funds when federal funds are not available, while maintaining eligibility to be reimbursed with federal-aid funds at a later date. In the past when dedicated ADHS funding was expected, the cost of pre-financed work was included as an eligible “cost” in the ADHS estimate. It should be noted that state DOTs have typically planned for the use of other federal-aid funds, and not ADHS funds, as the reimbursement for the pre-financed work. However, because pre-financed costs were an eligible part of the cost-to-complete estimate in past estimates, it is also included in the *2025 ADHS Cost-to-Complete Estimate*, even though state DOTs may not have initially specified federal ADHS funds for reimbursement.

States were also required to specify all funding available for future ADHS projects. This includes federal funding previously apportioned to the Appalachian states, federal discretionary grants awarded for ADHS projects, and state funds explicitly committed for ADHS projects. States were allowed to exclude any ADHS funds that they have committed to 2025 Local Access Road (LAR) projects.

ARC independently reviewed all state DOT submissions and then worked with the states to ensure that the cost-to-complete estimates represented a logical and reasonable estimate in year 2025 U.S. dollars for remaining work on uncompleted eligible ADHS corridors. In addition, the Federal Highway Administration’s local division office in each state validated the state DOT’s cost-to-complete estimate.

Cost-to-Complete the ADHS and Remaining Needs

The 2025 total cost-to-complete estimate for the ADHS, as of September 30, 2025, is \$15.2 billion (in 2025 U.S. dollars), plus potentially eligible \$631 million in pre-financed projects. As of September 30, 2025, \$1.4 billion was available to states for the ADHS. This includes unobligated federal ADHS funding apportioned to the Appalachian states, and federal discretionary grants awarded for ADHS projects along with FY 2026 IJA ADHS allocations. This results in an estimate of \$14.4 billion for the remaining funds needed to complete the construction of the ADHS.

The table below shows the cost-to-complete for each state’s ADHS corridors and the remaining funds needed.

Cost-to-Complete the ADHS, by State as of September 30, 2025

State	Cost-to-Complete ADHS Corridors	Advance Construction Authorized	Available Funds	Remaining Funds Needed	Percentage of Total Remaining Funds Needed
Alabama	\$7,967,630,000	\$0	\$503,042,383	\$7,464,587,617	51.82%
Georgia	\$365,900,000	\$0	\$27,905,282	\$337,994,718	2.35%
Kentucky	\$107,500,000	\$0	\$103,220,370	\$4,279,630	0.03%
Maryland	\$254,200,000	\$1,350,000	\$68,968,640	\$186,581,360	1.30%
Mississippi	\$0	\$0	\$0	\$0	0.00%
New York	\$0	\$0	\$0	\$0	0.00%
North Carolina	\$567,000,000	\$82,000,000	\$130,765,752	\$518,234,248	3.60%
Ohio	\$148,600,000	\$458,894,000	\$25,049,029	\$582,444,971	4.04%
Pennsylvania	\$3,248,768,115	\$40,400,000	\$72,762,644	\$3,216,405,471	22.33%
South Carolina	\$0	\$0	\$0	\$0	0.00%
Tennessee	\$595,900,000	\$0	\$278,722,426	\$317,177,574	2.20%
Virginia	\$771,700,000	\$0	\$32,444,794	\$739,255,206	5.13%
West Virginia	\$1,127,800,000	\$48,300,000	\$138,840,005	\$1,037,259,995	7.20%
Total	\$15,154,998,115	\$630,944,000	\$1,381,721,326	\$14,404,220,789	100.00%

Table notes:

All costs are in 2025 U.S. dollars.

See the appendix for the cost-to-complete for each corridor and remaining funds needed by state.

ARC calculates the remaining funds needed by adding the amounts of Advance Construction authorized (i.e., pre-financed) to the cost-to-complete ADHS corridors estimate, then subtracting available funds.

Projects that have been federally authorized and obligated but not yet completed are not included in the cost-to-complete ADHS corridors estimate.

Factors Affecting the Cost of Remaining Work

The estimated cost of completing the ADHS increased from \$10.3 billion in the *ADHS 2021 Cost-to-Complete Estimate* to \$15.2 billion in the *ADHS 2025 Cost-to-Complete Estimate*. Factors affecting the 2025 cost estimate include the following:

- **Inflation.** At a national level, highway construction costs have, on average, increased by 14% each year since the *ADHS 2021 Cost-to-Complete Estimate*, where costs were calculated in year 2021 U.S. dollars. This increase is based on FHWA's National Highway Construction Cost

Index when comparing the year 2021 construction cost index with the year 2025 construction cost index.

- Cost Refinements.** As highway projects progress through the stages of development (location, design/right of way, and construction), earlier estimates are refined and updated to reflect changing specifications and costs for construction, right of way, environmental mitigation measures and design standards. Estimating costs for highway miles in the location phase is particularly challenging, as final alignments have not yet been determined, and engineering requirements such as fills and number and types of bridges are not known at that stage.

ADHS Unobligated Balances

To determine the remaining federal funding needed to complete the ADHS, ARC developed an inventory of each state’s unobligated ADHS funds from all federal sources (TEA-21, SAFETEA-LU, earmarks and special U.S. Department of Transportation appropriations) and state funds committed to ADHS projects. The Federal Highway Administration’s Financial Management Information System (FMIS) showed that as of September 30, 2025, a total of \$1.14 billion in ADHS funding was unobligated for all states with ADHS funding. For states with unfinished ADHS corridors, a total of \$1.12 billion in ADHS funding was unobligated.

ADHS Unobligated Balances as of September 30, 2025

State	Unobligated ADHS Balance for all States	Unobligated ADHS Balance for States with Unfinished ADHS Corridors
Alabama	\$427,572,580	\$427,572,580
Georgia	\$13,486,816	\$13,486,816
Kentucky	\$88,848,590	\$88,848,590
Maryland	\$63,002,171	\$63,002,171
Mississippi	\$1,935,621	
New York	\$7,361,932	
North Carolina	\$95,283,640	\$95,283,640
Ohio	\$4,669,659	\$4,669,659
Pennsylvania	\$54,142,756	\$54,142,756
South Carolina	\$19,362,213	
Tennessee	\$262,966,558	\$262,966,558
Virginia	\$10,323,463	\$10,323,463
West Virginia	\$95,580,289	\$95,580,289
Total	\$1,144,536,289	\$1,115,876,523

When determining the total available funds for ADHS projects, the ADHS unobligated balances were reduced as necessary to be consistent with decisions by some states to use ADHS funds for Local Access Road projects in FY 2025 (e.g., \$2 million for North Carolina). In states where all ADHS work has been completed (Mississippi, New York, and South Carolina), the unobligated balances were not included in the total available funds for ADHS projects. The total available funds for ADHS projects include federal discretionary grants awarded for ADHS projects (e.g., \$20 million awarded to North Carolina under the U.S. Department of Transportation Nationally Significant Federal Lands and Tribal Projects Program [NSFLTP]).

In addition, the FY 2026 IJA allocations for each state were used in the calculation of funds available for ADHS projects since those funds were apportioned to the states on October 1, 2025. This table shows those FY 2026 state apportionments.

FY 2026 IJA Apportionments

State	Appropriation
Alabama	\$73,875,000
Georgia	\$14,418,466
Kentucky	\$14,371,780
Maryland	\$5,966,469
Mississippi	\$0
New York	\$0
North Carolina	\$17,482,112
Ohio	\$20,379,370
Pennsylvania	\$18,619,888
South Carolina	\$0
Tennessee	\$15,755,868
Virginia	\$22,121,331
West Virginia	\$43,259,716
Total	\$246,250,000

These adjustments, along with deductions for New York, South Carolina, Mississippi, and the addition of FY 2026 IJA apportionments, result in a total amount of \$1.38 billion available for ADHS projects.

Estimated Completion Dates

The ADHS completion plans submitted by the states to ARC included estimated completion dates for all corridor segments. Three states—Mississippi, New York and South Carolina—have completed their corridors. Most other Appalachian states have indicated their corridors will not be finished until 2035 or later, given limited funding availability and competing state project priorities.

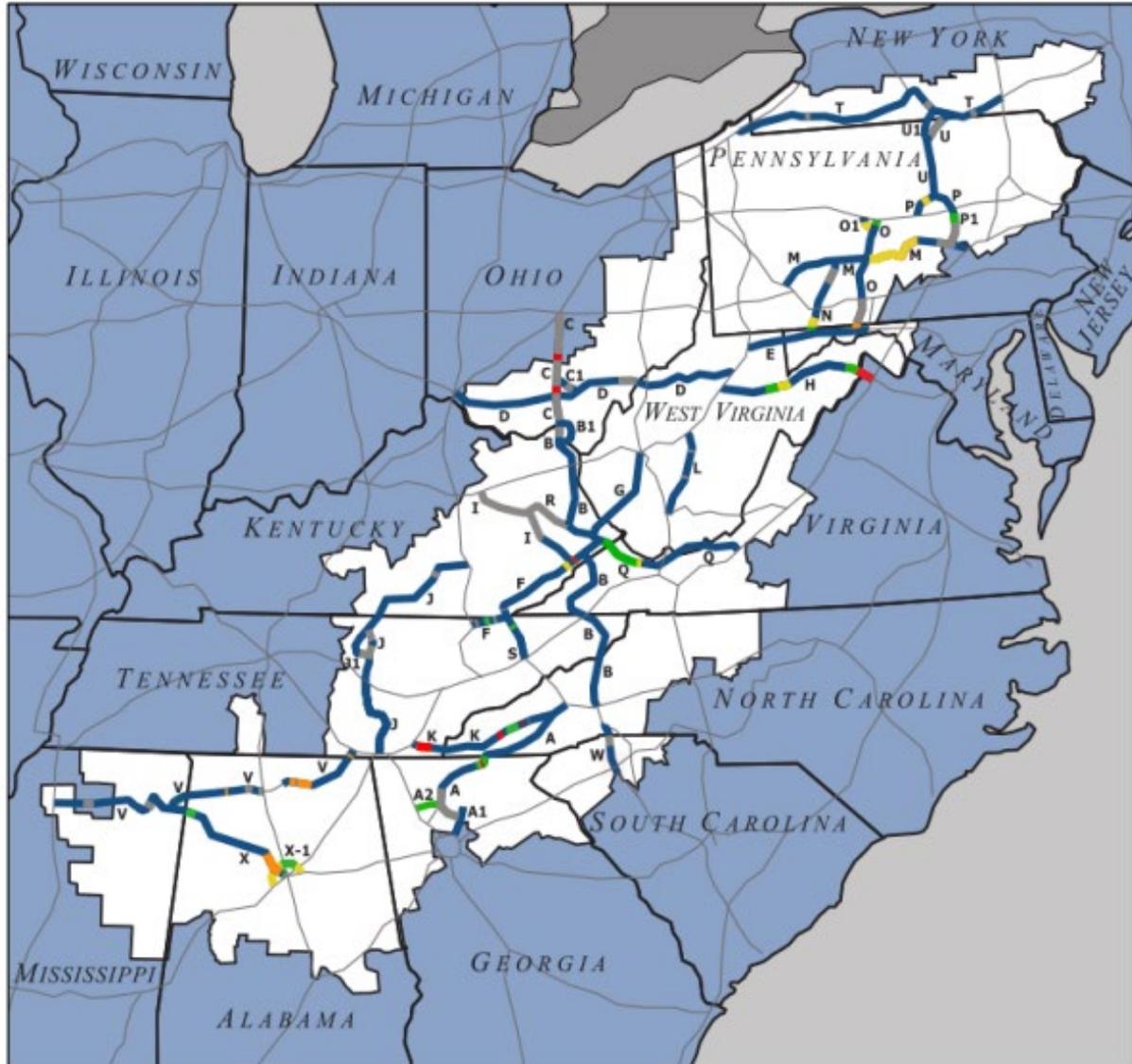
LOOKING AHEAD

Future Outlook

To provide the most current information regarding state DOT plans and priorities for completing the ADHS, ARC has initiated a yearly reporting of each state’s future outlook for their corridors. This information was included for the first time in the *FY 2019 Status of the Appalachian Development Highway System*, published in January 2020, and reflected the future outlook as of September 30, 2019. Because of the availability of additional resources for the ADHS in FY 2020, ARC allowed all states to update their future outlook submissions midway through FY 2020. The ADHS Future Outlook map shown below (updated as of September 30, 2025) provides a visual depiction of the schedules and priorities of the state DOTs regarding their respective corridors.



Future Outlook of the Appalachian Development Highway System
as of September 30, 2025



- Non-Participating
- Complete
- Partially Complete - Meeting Traffic Needs
- Incomplete - Significant Progress (likely complete within 10 years)
- Incomplete - Some Progress (likely complete in more than 10 years)
- Incomplete - Completion Date Undetermined

Transportation and Economic Benefits of ADHS Completion

The 2017 study, *Economic Analysis of Completing the Appalachian Development Highway System*, estimates the economic outcomes of ADHS work completed to date and forecasts the future economic impacts, benefits and costs associated with completing the system. Key findings related to the approximately 90% of the ADHS completed as of 2017 included:

- Increased economic activity associated with the ADHS system has helped create or support over 168,000 jobs across the 13 Appalachian states, with over \$7.2 billion of worker income annually.
- ADHS investments made between 1965 and 2015 generated over \$19.6 billion per year of added business sales in Appalachia, representing over \$9 billion of added gross regional product.
- The ADHS saves 231 million hours of travel time annually, and the value of transportation cost savings and productivity gains associated with the ADHS amounts to \$10.7 billion annually.

Looking ahead, the study also projected the transportation and economic benefits of completing the ADHS by 2045 and found that completion of the ADHS will result in:

- A total of 121 million more hours of travel time saved.
- Travel cost savings and economic productivity gains of \$1.8 billion per year.
- A return on investment (ROI) estimated at 3.7, meaning that the present value of benefits is estimated to be \$3.70 for every \$1.00 invested in the ADHS.
- An economic impact of 47,000 jobs and \$4.2 billion gross regional product (GRP).

These benefits come from completion of a network connecting Appalachia with broader labor markets, truck delivery markets, inland distribution ports and export gateways. For instance, completion of the ADHS is calculated to bring a 30% increase in population market access for businesses located along the affected corridors. Completion of the ADHS network will provide significant travel efficiencies for car and truck movements to, from and within the region. For example, ADHS completion is expected to contribute significant benefits to the quality of life for those living, working and visiting Appalachia.

The economic competitiveness improvements due to ADHS completion will support more inward investment to the region, more exports and ultimately more business growth. These economic impacts will occur most dominantly within Appalachian counties, with further growth occurring in other parts of the 13 Appalachian states.

Safety Benefits of ADHS Completion

An ARC funded report from 2021, *Traffic Safety in Appalachia*, stated that the ADHS appears to show significant safety benefits when its new alignments are compared to old alignments with an overall positive impact on traffic safety. The report's evaluation of a sample of crash data indicated that the ADHS system significantly reduces both the total number of crashes and incidents with injury crashes.

If state DOTs upgrade their facilities, they may see total crash reductions ranging from 10.9% to 36.3% and injury crash reductions ranging from 15.1% to 44.5%. The average possible reductions based on local traffic conditions are 23.6% and 29.8%. These effects are primarily based on the ADHS designation being applied to new alignment rather than to upgraded alignment, and the predicted number of crashes may change as traffic volumes grow.

Completing the ADHS

The ADHS is a vital part of the Appalachian Region's transportation resources, providing residents with safe and reliable access to jobs, education, healthcare and social services. It also plays a vital role in giving the region access to domestic and international markets. In today's global marketplace, a modern system of highways is essential for economic growth and for enabling Appalachia to become a net contributor to the national economy. A "Sense of the Senate" provision in MAP-21 states that "the timely completion of the Appalachian Development Highway System is a transportation priority in the national interest."

The completion of the ADHS remains a priority for ARC and is reflected in its strategic plan. Appalachia's transportation infrastructure, including roads, highways, and public and personal transit, are critical to bolstering the region's economy. Not only is transportation infrastructure crucial for economic growth and prosperity, but also for quality of life of the region's 26.4 million residents and their ability to access educational, healthcare and employment opportunities. Increased funding and planning support for transportation infrastructure improvements and innovations in transportation planning are needed for Appalachia to continue to be an attractive place to live, work and do business. This includes continued support for the Local Access Roads program and investments in intermodal facilities, rail spurs, inland ports and waterways, freight rail access, and aviation to link the region's businesses, communities and residents to regional, national and global markets.