

Transportation Roadmap for the Appalachian Regional Commission

March 2019

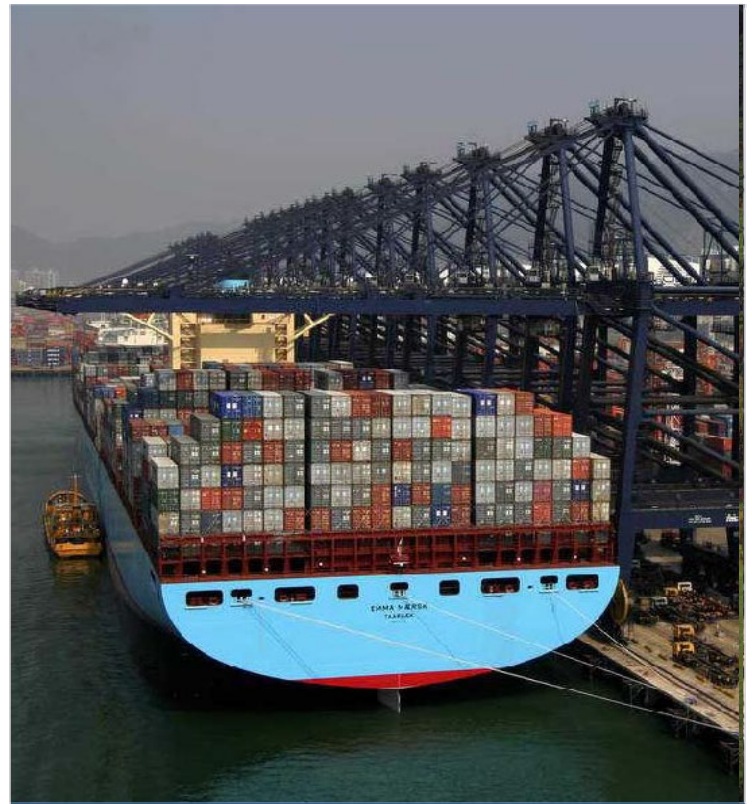


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ARC's Transportation Roadmap

Based on a series of surveys, interviews, research and meetings (the findings of which are contained later in this document), the following roadmap was developed to outline ARC's role in transportation.

Vision for Transportation in Appalachia

The transportation system throughout the Appalachian Region provides safe, efficient, and reliable multimodal access to opportunities, services, and markets for all residents, businesses and visitors, enabling Appalachia to achieve socioeconomic parity with the nation.

ARC's Transportation Mission

In conjunction with ARC's overall mission and Goal 3 of the ARC Strategic Plan (Critical Infrastructure), provide leadership and facilitate progress in addressing transportation challenges which impact economic growth in the Appalachian Region by collaborating with partners, innovating, investing, and conducting research.

ARC's Transportation Goals

➤ **Improve Resident and Visitor Access to Opportunities and Services**

The first transportation goal is focused on passenger travel for commuters, residents and visitors with the idea of improving transportation connectivity and multimodal options to be comparable with national standards. Many areas of Appalachia remain isolated from markets and services, lack reliable highway connections, and don't provide viable non-auto travel options (such as public transit). And the socioeconomic well-being of Appalachian residents is directly connected to how well they can travel to jobs, education, health care providers, and other services and opportunities.

➤ **Improve Business Access to Supplies, Labor, and Domestic and Global Markets**

The second transportation goal is focused on freight transportation and goods movement to, from and throughout the Region. This transportation goal

Quality of Access

Transportation access is generally the ability of residents and businesses to reach desired opportunities and services. For residents, opportunities and services may include employment, education, medical facilities, and recreation. For businesses, opportunities and services may include employees, suppliers, and markets. There are numerous factors which influence this ability to reach opportunities and services, including degree of isolation (geographic, social, and digital) and quality, affordability, comfort, and reliability of transportation choices.

recognizes the critical role of freight and trade in supporting business growth and economic development in Appalachia, and the necessary transportation routes and facilities for efficient goods movement.

Transportation Guiding Principles

1. **Access is Paramount** – Transportation access is the primary transportation-related variable impacting socioeconomic outcomes and potential for economic growth in Appalachia.
2. **ADHS Completion is One of Many Strategies** – While ADHS completion remains a high priority to ARC, it is also understood that in some cases other transportation activities can have a similar or greater impact on access and economic development.
3. **Actions Must Align with a Strategic Vision** – All of ARC's transportation-related activities and strategies should align with the transportation vision and mission and contribute towards achieving one or both of the overarching transportation goals.

ARC's Strategic Role in Transportation

- **Lead** – Strive to be a leader in understanding the connection between transportation and economic development in Appalachia and assist local, state, regional, and national partners in appropriately considering and addressing this connection.
- **Inform** – Inform, educate, and remind transportation practitioners about the economic disparities in Appalachia, the importance of transportation access in helping resolve economic disparities in Appalachia, and the role transportation agencies can play in addressing these issues.
- **Connect** – Connect transportation practitioners in the Appalachian Region with ARC partners and facilitate discussions to incorporate economic development considerations into transportation decision making.
- **Facilitate** – Coordinate meetings, lead discussions, gather information, and facilitate problem resolution to implement projects and activities.
- **Research** – Conduct research regarding the uniqueness and condition of transportation in Appalachia and the connection between transportation issues and economic development in Appalachia.

- **Support** – Develop guidance and provide technical assistance to transportation practitioners in Appalachia so that economic development impacts are more appropriately considered as part of the transportation decision making process.
- **Fund** – Provide ARC funding when possible and assist local and state partners to identify and compete for non-ARC funding sources that can help improve transportation access in Appalachia.

Transportation Activity Focus Areas

To accomplish ARC's transportation goals in a manner consistent with the transportation guiding principles and ARC's strategic role in transportation, below are a series of specific transportation focus area activities which ARC should focus on leading and supporting.

- Addressing Both Transportation Goals
 1. **Complete the ADHS** – Work towards the completion of ADHS corridors and the overall system. Lead development of an ADHS Strategic Plan that outlines current status, priorities, goals, and strategies for ADHS completion (see Section IV, *Completing the ADHS*, for more information about the ADHS Strategic Plan). Examples of ongoing tasks which ARC is working on related to this focus area include:
 - Develop an ADHS Strategic Plan in coordination with the State DOTs and FHWA by August 2019 which summarizes the ADHS status, future outlook, and completion priorities and strategies.
 - Work with state and local officials in North Carolina to identify and explore Corridor K project concepts which balance regional freight movement, economic development, and local mobility with cost, environmental impact, and schedule.
 - Work with Mississippi DOT to develop a competitive USDOT grant application for the remaining unfinished portion of Corridor V near the Alabama state line and assist as needed to promote the potential economic impact of the project.
 - Facilitate and streamline approval of changes to mileage eligibility, route alignment or design elements, similar to the Commission's February 2018 approval of Georgia's request to create a new Corridor (A-2) and shift eligible miles over from Corridor A.
 2. **Promote Improved Rural Transportation Planning** – Promote and support greater rural transportation planning efforts in the region and work to align rural transportation priorities in each state with ARC's transportation vision and mission. Activity examples include:

- Invest in strategic planning efforts like the Ashtabula Rail and Port Transportation Strategic Plan development, funded through POWER in 2018.
 - Once Access in Appalachia research is complete, promote rural accessibility and corresponding relationship with socioeconomic indicators as a key transportation planning metric used to guide investment decisions at the local, state and national level.
3. **Connect Transportation Officials with ARC Partners** – Connect transportation and economic development practitioners and facilitate conversations so they work more collaboratively on strategies to promote economic growth. Activity examples include:
- Host state workshops and meetings between transportation leaders and economic development leaders.
 - Through research and advocacy, act as a voice for economic development in the transportation community. Participate in transportation conferences and meetings like the Georgia Tech Infrastructure Dialogue (April 2018), presenting and speaking about the link between transportation and economic development, particularly in rural areas.
4. **Research and Quantify Access** – Through research and analysis, assess the quality and level of access in the Appalachian Region and work with federal, state and local partners to implement strategies to address findings. Activity examples include:
- Complete Access in Appalachia research, funded and started in FY 17, to define and quantify access, correlate access to socioeconomic outcomes, and develop guidance for local, state and national transportation practitioners to incorporate access metrics in the transportation planning and decision making process.
5. **Incorporate Economic Metrics in Transportation Processes** – Provide guidance to transportation and economic development practitioners to more fully incorporate economic metrics and consideration of economic impacts in the transportation planning and decision making process. Activity examples include:
- Promote findings from the 2017 ADHS Economic Impact report.
 - Partner with the Economic Development Research Group (October 2018) to quantify the expected wider economic benefits (like improved market access and supply chain efficiency) that could be realized if the remaining unfinished link of Corridor V in Mississippi

were constructed, for inclusion in an upcoming USDOT discretionary grant application.

- Continue to participate in the Transportation Research Board's Transportation and Economic Development Committee.
- Continue to participate in the annual International Transportation and Economic Development Conference.

6. **Invest in Transportation** – Invest in transportation projects which plan, design or implement activities to enhance access to opportunities and services for residents or businesses. Activity examples include:

- Continued investment through ARC's local access road program, primarily for projects which provide new or enhanced access to opportunities and services for residents or businesses.
- Through various ARC funding programs, provide additional funding for transit services and complete streets projects which enhance access for those who do not have reliable access to a car.

7. **Maximize Funding Opportunities** – Assist local and state partners in the region to identify and compete for funding opportunities, particularly the USDOT's discretionary grant programs (e.g. BUILD and INFRA). Activity examples include:

- Work with Mississippi DOT to develop a competitive INFRA application for ADHS Corridor V.
- Assist West Virginia DOT with application for USDOT discretionary grant funding for ADHS Corridor H.

➤ Primarily Addressing Goal #1 – Improve Access to Opportunities and Services

8. **Advance non-ADHS priorities** – Through research and collaboration with partners, identify and advance non-ADHS transportation priorities such as public transit, passenger rail, bike/pedestrian projects, and construction, maintenance, and operation of critical non-ADHS roadways. Activity examples include:

- Participate in events like USDA's recent workshop, Opioids Misuse: Increasing Access to Transportation in Rural Communities.
- Greater involvement in national dialogue regarding complete streets and transit in rural areas through participation in national conferences and collaboration with influencers like the Federal Transit Administration and the National Rural Transit Assistance Program.

9. **Promote a Multimodal, Complete Streets Approach** – Partner with ARC stakeholders to enhance multimodal transportation solutions and promote complete streets projects. Activity examples include:

- Assist West Virginia's Complete Streets Advisory Board with establishing priorities, developing policies, and hosting a peer exchange with other states and communities in the Appalachian Region with successful complete streets projects.

10. **Invest in Local Access Roads** – Invest in Local Access Road (LAR) projects which promote job growth by providing new or enhanced direct access to industrial, commercial, recreational or residential development sites (maintenance of existing roads will not typically be funded). Activity examples include:

- Projects like a recently approved local access road in Anderson County, SC which will provide new access to a new Innovation Center and Test Lab, enabling the creation of 250 jobs.

➤ Primarily Addressing Goal #2 – Improve Access to Domestic and Global Markets

11. **Facilitate Network Appalachia** – Continue facilitating the Network Appalachia working group meetings and initiatives. Activity examples include:

- Host at least one Network Appalachia meeting per year to help guide ARC intermodal activities and provide a forum for collaboration among Appalachian states and communities regarding intermodal transportation.

12. **Advance Freight Projects** – Work with regional, state, and federal partners to help advance freight projects and strategies such as intermodal rail terminals, inland ports, inland waterways, freight rail access, aviation, etc. which connect businesses to markets. Activity examples include:

- Funding for new Class I rail service to an industrial park which will make the site more marketable for businesses due to enhanced transportation access to markets.
- Funding and advocacy for new intermodal container transfer facilities throughout Appalachia which improve freight access between communities in the region and costal ports.
- Enhance the growth and success of Appalachia's waterway navigation system, obtaining Marine Highway Corridor designation for key inland navigation links.

- Strengthen Appalachia's access to key coastal ports.
- Continued participation in the annual Tennessee-Tombigbee Waterway Conference and continued support for the expansion of container-on-barge services in Appalachia.
- Partnership with the I-81 Corridor Coalition to research the economic development connection between I-81 and Appalachia and develop strategies to utilize I-81 improvements as a way to enhance freight access between Appalachia and global markets.

➤ Integrate with Other ARC Priorities

13. **Increase broadband access** – Work with federal, state, and local partners to facilitate widespread deployment of broadband throughout Appalachia. Realizing that broadband service is a form of access to opportunities and services for residents and to markets for businesses, providing new or enhanced broadband may supplant or supplement the need for other transportation access initiatives in many communities. Activity examples include:

- Funding for expanded broadband coverage in Eastern Kentucky through SOAR and the Kentucky Wired project.

14. **Support Local and Regional Economic Development** – Support and assist with non-transportation economic development initiatives that can strengthen the value of transportation investments and, collectively, maximize potential for economic growth. Activity examples include:

- An investment in a workforce development training program at a local community college coupled with a complete streets project on the road adjacent to the college and enhanced transit services for area residents to access the college could collectively result in greater participation in the training program and increased utilization of the transportation enhancements.

15. **Research and Promote Transportation Technologies** – Through research, participation in national policy discussions, and collaboration with local and state transportation officials, maintain understanding of emerging transportation technologies and ensure the unique characteristics of Appalachia are considered as technologies are deployed. Promote business and industry development around research, testing, and deployment of emerging transportation technologies in Appalachia. Activity examples include:

- Funding provided to Maryland for an Autonomous Technology Center (ATC) Feasibility Study (2018), leading to creation of a work group by Governor Hogan to pursue recommendations from the study.

Background

The Appalachian Regional Commission (ARC) is examining its future role supporting transportation in Appalachia. For decades, ARC's role has been focused on administering and supporting the completion of the Appalachian Development Highway System (ADHS). The ADHS is almost 90% complete, but major challenges remain to finish many of the incomplete corridors. In addition, ARC is the lead organization administering the Local Access Road (LAR) program focused on highway projects that directly support economic development opportunities. ARC has also supported intermodal and multi-modal transportation initiatives and projects through direct staff engagement and facilitating the Network Appalachia working group.

While much progress has been made since 1965, the Appalachian Region still lags the nation on most socioeconomic data factors like poverty, unemployment, and income levels. For example, Appalachia's per capita income (not including transfers) was \$29,282 in 2015 compared to \$39,778 at the US level. This income deficiency holds for most of Appalachia's states where the Appalachian portion of the state has a lower income than the state overall in 10 of 12 states (West Virginia is fully within Appalachia and has a per capita income of just \$26,392).

So, the original rationale to create and complete the ADHS is still valid. But the ADHS was designated in 1965 and there are other transportation needs and opportunities in the Appalachian region to help alleviate isolation, promote mobility options and connectivity, and enhance access to markets, workers, customers, and visitors.

Thus, the **purpose** of this roadmap for transportation in Appalachia is to:

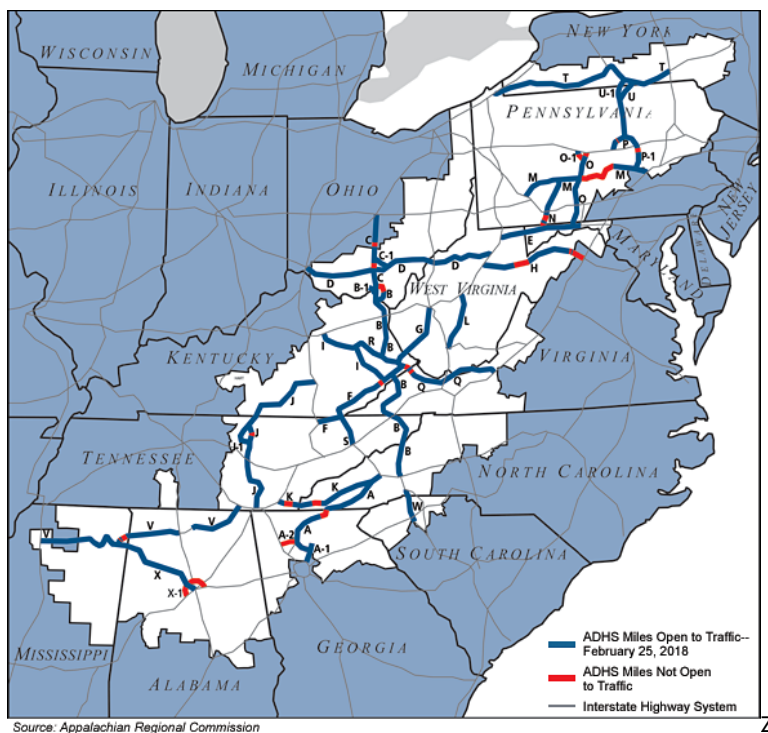
1. Identify the most critical transportation issues, opportunities, initiatives and programs for Appalachia (including the ADHS);
2. Determine the strategic mission, goals, and priorities for ARC's work supporting transportation in Appalachia; and
3. Outline and define the role of ARC in supporting/leading the implementation of transportation initiatives, including a refined strategic approach for completing the ADHS and maintaining its work on local access roads and intermodal transportation.

The next three sub-sections briefly review ARC's current role supporting transportation and some high-level challenges.

Completing the ADHS

In 1965, the ADHS was authorized by Congress with the purpose of stimulating economic development by reducing isolation and improving access for an economically depressed region. It designated a network of 32 distinct highway corridors totaling 3,090 miles and connecting the 13 Appalachian states with other interstate highways (Figure 1). As of FY 2016, 90.4 percent of the authorized network was either open to traffic, or under construction. However, completing the remaining 10 percent of the ADHS is proving to be a major challenge. This is partly due to environmental and topographical complexities, but also stems from two other factors: a) elimination of dedicated Federal funding to complete the ADHS; and b) state-level transportation project prioritization processes that make it difficult for rural highway corridors to compete for funding.

Figure 1. Status of ADHS Completion



ADHS Investments are Decreasing since Dedicated Funding was Eliminated. From 1965 to 2012, states received funding from the Federal government specifically allocated to complete the ADHS. The funds could only be used on approved ADHS corridor segments, and was supplemented by state and local funds (typically an 80/20 split). But starting with the Moving Ahead for Progress in the 21st Century Act (MAP-21) in 2012, this dedicated funding source was eliminated. The legislation still recognized that “the timely completion of the ADHS is a transportation priority in the national interest” and allowed states to use up to 100% Federal funding on ADHS corridors. It also required that Appalachian states detail their completion plans with annual completion targets and a target completion date.

However, evidence thus far suggests that the lack of dedicated funding is having a clear adverse effect on completion of the ADHS. States are gradually using their remaining obligated funds for the ADHS (though about a \$1 billion is still unspent), and some (like West Virginia) are trying to increase the state funds they have available to finish ADHS corridors. But many others have effectively stopped work on key ADHS corridors given the lack of federal funding. For example, Pennsylvania's completion plan submittal stated that they have "no current plans to complete their portion of the ADHS other than an 11.4 mile segment on Corridor N."

Discussions with state DOTs across Appalachia are consistent with these findings – states that lack ADHS funding, with no clear pathway to new/additional funds, have stalled highway projects throughout the Region.

It is worth noting that MAP-21 included specific language intended to ensure that states would still complete major corridor segments. For example, for states with 15 percent or more of all remaining work in the cost to complete estimate, they are not allowed to establish a highway completion plan that would lower annual ADHS obligations within the state. This would apply to Pennsylvania and Alabama but this provision is clearly not being enforced.

State DOT Project Prioritization Processes Favor non-ADHS Transportation Projects. State departments of transportation (DOTs) across the country are adopting and implementing data-driven project prioritization methods to choose transportation investments and allocate scarce funding. In our initial scan of these processes and the performance measures driving these processes, it is clear that they tend to favor projects in urban areas with large traffic volumes, providing congestion relief. They also favor funding to re-invest in structurally deficient bridges and maintain the state of good repair (SGR) of highways. The performance measures often do not take into account geographic equity or accessibility to markets and services, factors that are more important in rural areas. The consequence is that ADHS projects are not "scoring" well and are receiving low-prioritization rankings. One prime example of this is Corridor H in Virginia, which is a vital connection at the eastern edge of Corridor H providing direct linkage to I-81 from Appalachia. While West Virginia continues work towards completion and is building new segments of this major corridor, Virginia shows no signs of completing their shorter segment since it does not rank as high as other state priorities.

Intermodal Transportation and Network Appalachia

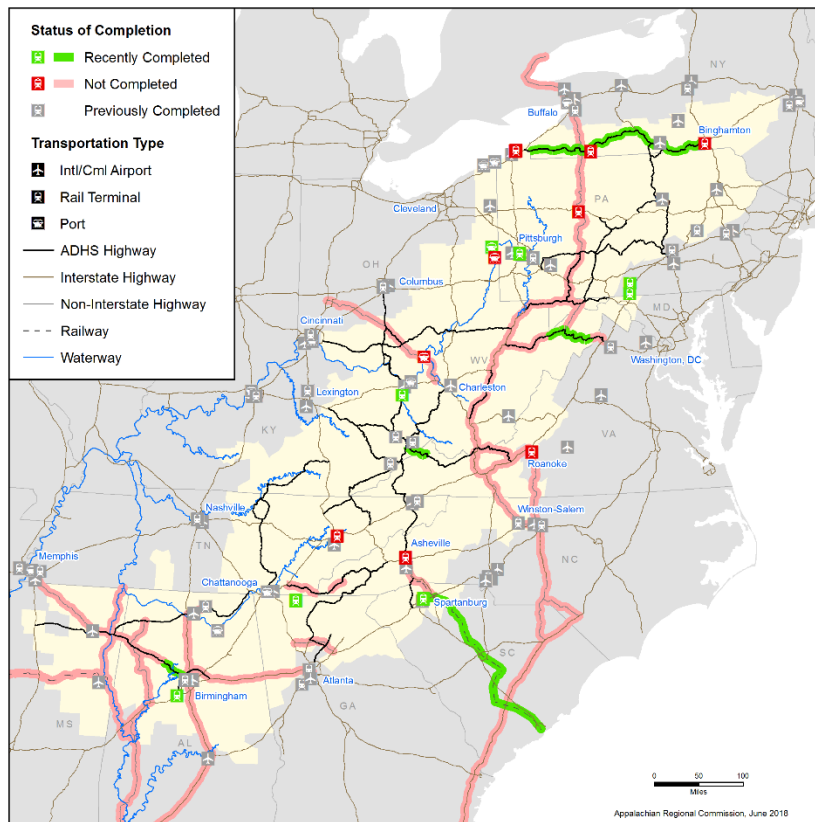
In 2009, ARC completed a major study entitled "Network Appalachia: Access to Global Opportunity"¹ that profiled the intermodal and multimodal transportation system in Appalachia and how it connects the region to global trade opportunities. That study was the first major product stemming from ARC's formation of Network Appalachia – a group of regional transportation leaders with representatives from each state in Appalachia focused on intermodal and multimodal transportation. The 2009 report recommended three broad goals for Appalachia:

¹ https://www.arc.gov/news/article.asp?ARTICLE_ID=228

1. Continue to develop the 3,090-mile Appalachian Development Highway System (ADHS).
2. Establish the ADHS as a regional highway foundation for a strategic network of Intermodal Corridors of Commerce. This balanced system of interconnected highway, rail, and inland waterway corridors is Appalachia's direct connection to both domestic and international markets.
3. Develop a growing system of inland ports to serve as key interchanges between the Region's local economies and its transportation system. Patterned after successful models in Front Royal, Virginia; and Huntsville, Alabama, these transportation and logistics centers enhance the competitiveness of existing local businesses while helping attract new enterprise and employment to host communities.

The report also identified a list of 30 tactical project examples that could support and help realize the vision of intermodal corridors and a system of inland ports. As shown in Figure 2, some progress has been made over the past decade to implement these projects, highlighted by new intermodal terminal / inland port facilities in Greer, SC; Chatsworth, GA; Pritchard, WV; Birmingham, AL; and Pittsburgh, PA. Many other projects remain unfinished, including more ambitious highway, inland waterway and rail corridors.

Figure 2. Appalachian Transportation System and Network Appalachia Projects



Isolation and Poor Transportation Access

The primary goal of the Appalachian Development Highway System (ADHS) when established by Congress in 1965 was to remove isolation and better connect the

Appalachian Region to markets. Although the ADHS is now approximately 90% complete, many parts of Appalachia still suffer from isolation and poor access which can inhibit economic opportunity and growth. In some areas, ADHS routes or other planned four-lane highways remain unbuilt, leaving travel time and reliability challenges for residents and businesses. In other areas, four-lane highway access may be available, but many homes do not have a personal automobile and alternative options such as transit or ride sharing are unavailable or unreliable. Other areas may have sufficient access and mobility options for residents, but lack freight transportation connectivity such as access to freight rail², inland ports or marine shipping for businesses. These areas may be too isolated from critical supply chain links to global and domestic markets to attract or retain industry.

Local communities often tell ARC that lack of transportation access is a widespread barrier when implementing economic development solutions. Even when tangible progress appears to occur (e.g., a new business, medical facility, or community college opens), residents without reliable transportation access are far less likely to benefit from that progress. Those lacking transportation access are often the individuals in most need of an economic boost but are at a disadvantage to benefit from new opportunities due to their transportation constraints.

At the same time, traditional highway investments on new rural roadways have slowed in recent years as many states shift their priority to system maintenance. As mentioned above, the limited funding states use on capital investments is often doled out in a competitive manner based on traffic volumes and anticipated return-on-investment (ROI) which tends to favor urban projects. Funding for rural transit and other alternative transportation forms varies across the Region, but is generally minuscule compared to traditional highway funding. State DOTs and planning organizations are often aware, anecdotally, of the isolation and access challenges their communities face, but may not have procedures in place to fully account for these challenges when making investment decisions. Improved access may be part of a transportation agency's mission and vision, but rarely are investment priorities aligned with the goal of promoting growth in economically distressed areas.

The remainder of this report includes sections on: a) data collection and stakeholder input, including results from a survey of transportation leaders in the Region; b) a proposed vision, mission and goals of ARC's role supporting transportation in Appalachia; c) specific ideas about ADHS completion and how ARC and its partner states can work collaboratively toward completion; and d) a summary of findings, priorities, and action steps.

² Freight rail has declined recently in Appalachia due to reductions in coal production and less electric utility consumption of coal. For more information on the relationships between coal and freight rail see: https://www.arc.gov/research/researchreportdetails.asp?REPORT_ID=131

Data Collection and Stakeholder Input

To provide data, input, and ideas to guide this transportation roadmap, we initiated a few key work steps:

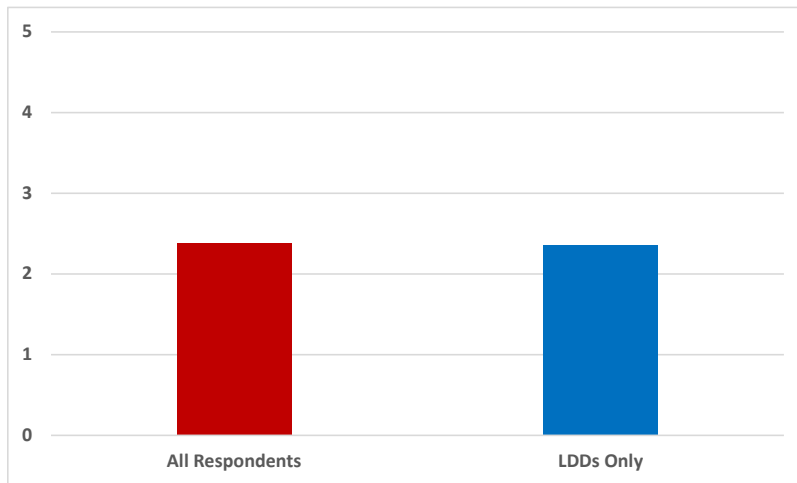
- Developed a transportation survey sent to regional and state leaders and stakeholders in Appalachia asking about transportation system conditions, investments needs, funding and ADHS completion priorities.
- Engaged Network Appalachia working group attendees in a brainstorming session of transportation issues and opportunities.
- Led an ADHS workshop with FHWA and state DOTs in West Virginia focused on current status, corridor completion challenges and strategies to work towards completion.
- Discussions with ARC staff (including senior staff and Co-Chair) and a review of past ARC transportation reports on the ADHS, freight rail, and intermodal access.

Appalachian Transportation Stakeholder Survey Results

In late March 2018, ARC sent out an online survey to a wide-range of Local Development Districts (LDDs), state DOTs, ARC program managers and state alternates, and other transportation stakeholders. The purpose of the survey was to gain a better sense of transportation in Appalachia from the people who know it best as we develop this roadmap. The survey asked questions about how they rate the conditions and performance of transportation modes (highways, local roads, rail, airports, etc.) and which modes are in most need of investment (among other questions). In total, there were 56 responses, with 50% from LDDs, 20% from state DOTs, 14% from state development agencies, and 16% from other organizations. Each state provided at least one response with the most coming from West Virginia (13) and Virginia (9).

As shown in Figure 3, respondents rated the overall transportation as just under 2.4 on a scale of 1 to 5 (with one being deficient and 5 being excellent). This translates to slightly better than somewhat deficient but worse than adequate (on average). This rating was consistent across LDDs and the total pool of respondents.

Figure 3. Overall Transportation System Rating



Respondents also provided ratings for individual modes and types of transportation infrastructure. As shown in Figure 4, there were a wide-range of responses on interstate and limited access highways with the most respondents saying they were good in their area (18 responses) but 23 responses said these highway facilities were deficient or somewhat deficient, and another 13 indicating highways were adequate. This finding demonstrates that while some areas benefit from interstates or completed ADHS corridors, other areas clearly perceive highways as a weakness.

Figure 4. Interstate and Limited Access Highway Ratings

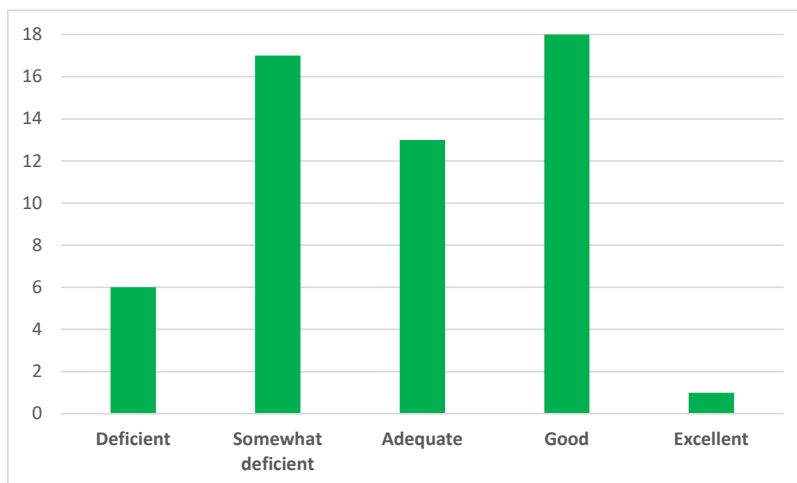


Figure 5 presents the average respondent rating by transportation mode or infrastructure class with a low of 1.88 (just below somewhat deficient) for passenger rail, and a high of 2.91 (just below adequate) for airports and aviation. Highways rated more highly than highway conditions reflecting the deferred maintenance needs on roads and bridges,

with public transit also seeing a low rating of just 2.0 reflecting the relative lack of rural public transit options in much of Appalachia.

Figure 5. Mean (Average) Rating by Transportation Mode (1 to 5 rating)

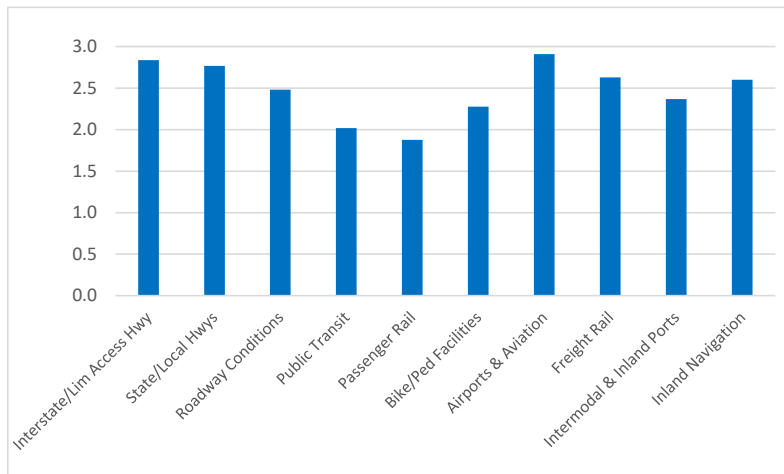
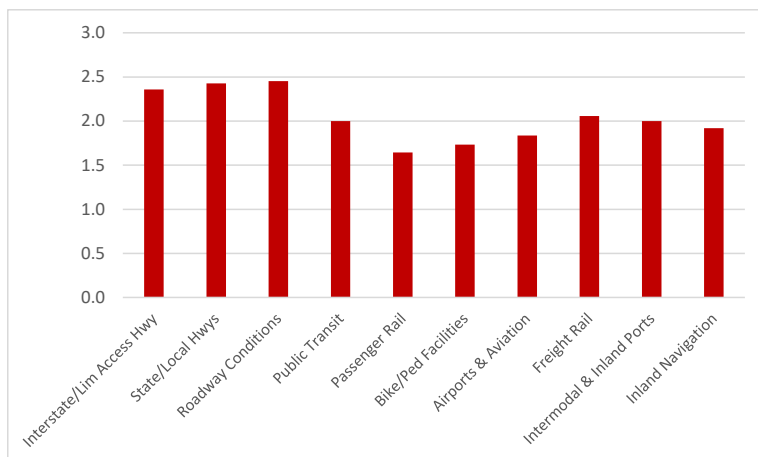


Figure 6, on the other hand, presents the average respondent rating of investment need by transportation mode or infrastructure, scored from 1 to 3 with 1 being least critical and 3 being most critical. The highest investment need at almost 2.5 was related to highway conditions, followed by investment needs in state/local highways, and interstate and limited access highways. So, highways are the dominant infrastructure class for investment need based on stakeholder responses. The ratings for public transit, freight rail, and intermodal/inland ports were all at about 2.0 indicative of a range of investment needs or aspirations with passenger rail and bike/pedestrian facilities scoring the lowest on investment need.

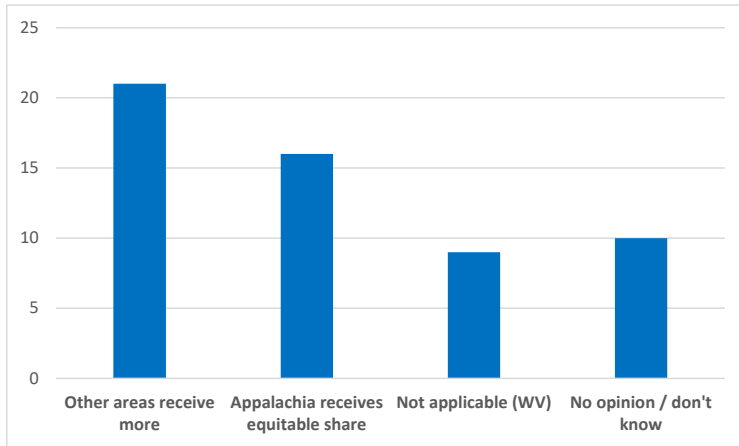
Figure 6. Mean (Average) Investment Need by Transportation Mode (1 to 3 rating)



As mentioned above, relatively recent data-driven state project prioritization methods may make it even more difficult for Appalachian projects to compete for funding in larger urban areas. So, we asked regional stakeholders whether or not they thought their area of Appalachia receives an equitable share of state funding. As shown, more

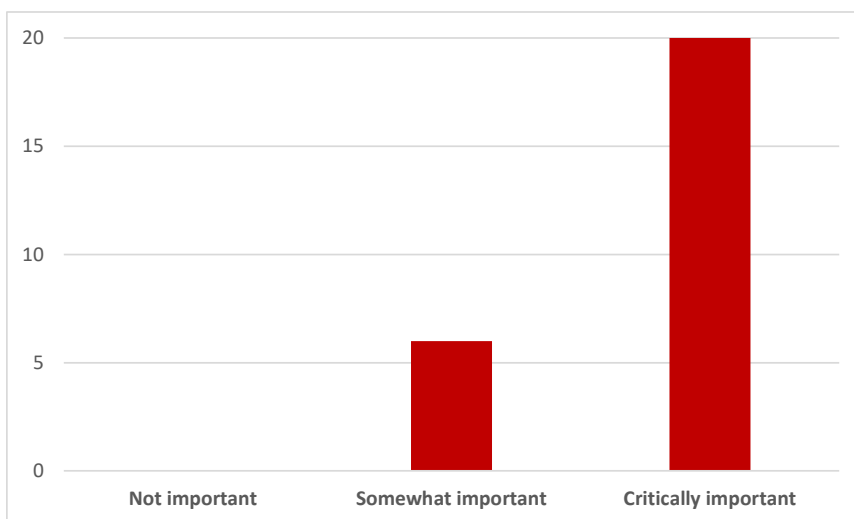
respondents (21) think that other areas receive more funding than those that thought Appalachia receives its fair share (16 responses). Ten respondents didn't know and this question was less applicable in West Virginia where the entire state is in Appalachia.

Figure 7. Does Appalachia Receive an Equitable Share of State Funding?



We also asked stakeholders about the economic development importance of ADHS corridors, both those that have been completed and those that remain to be built. Twenty-three respondents said that completed ADHS corridors have had a significant positive economic impact with 10 more indicating a small positive impact (and no one saying no impact). Similarly, as shown in Figure 8, the vast majority of respondents indicated that completing unfinished corridors is critically important to economic development.

Figure 8. Is Completing ADHS Corridor Important to Economic Development?



Finally, respondents were given open-ended questions with chances to comment on the most important priorities and challenges for transportation in Appalachia. Virtually everyone provided some comments and feedback which can be summarized as:

- The most frequently stated challenges and priorities related to:
 - maintaining and fixing existing infrastructure (highways and bridges);
 - enhancing highway capacity in strategic areas by completing corridors to improve connectivity and accessibility; and
 - the need for funding to complete projects sooner than later and address deteriorating highway conditions.
- In addition, there was a mix of public transit, rail and aviation project priorities mentioned by regional stakeholders.
- There were multiple comments about safety and the need to reduce highway accidents in key locations.
- Areas of Appalachia that are part of the natural gas and clean energy expansion see the need for improved highways.
- Lack of transportation funding to meet investment needs was a prevailing theme among most stakeholders.

Network Appalachia Working Group Meeting

In early June 2018, ARC hosted a meeting of the Network Appalachia working group with representatives from all states invited (and most participating in-person or by phone). Network Appalachia participants were asked the following questions ahead of the meeting and during a facilitated discussion:

Issues and Opportunities

- What are the top 3 transportation challenges or deficiencies in your Appalachian region?
- What are the top 3 opportunities (projects, modes) to make a meaningful impact on passenger travel (mobility and connectivity) in your Appalachian region?
- What are the top 3 opportunities (projects, modes) to make a meaningful impact on freight transportation (goods movement and intermodal facilities) in your Appalachian region?

Implementation and Funding

- What would it take to build or implement these transportation ideas? (e.g., funding, public-private partnerships, build local or state support, etc.)
- Does your Appalachian region compete well with the rest of the state for state transportation funding and investment dollars? (why or why not?)

ADHS Completion

- As applicable, what is the status of uncompleted ADHS corridors in your state? Is there a viable plan to finish the corridor(s)? (why or why not?)

- For the ADHS corridor(s) in your region that are considered “complete”, are they functioning well and as intended? Are there additional highway enhancements still needed?

Responses were provided in both written format and during discussion, with the following key issues and opportunities stated by stakeholders and state DOTs:

- Some regions of Appalachia are still hoping for inland port projects such as the Roanoke area in Virginia.
- I-81 is a key north-south highway for the Region but there is non-recurring congestion issues which create unreliability in trip times and truck volumes are very high.
- Multiple states commented that virtually all funding is going to deferred maintenance with very little money left for new capital projects.
- Pennsylvania reported some ADHS progress with a ribbon cutting on a completed segment of Corridor N and a new INFRA grant for an interchange project on Corridor O. Other corridors remain a lower priority as the state is focused on state of good repair (SGR) investments, repairing bridges, and other national highway system (NHS) routes. Corridor P1 (Central Susquehanna Thruway) does remain a priority but at a significant cost and they likely require more dedicated funding to make progress.
- North Carolina has both passenger rail (e.g., Amtrak service to Asheville) and intercity bus initiatives to help with non-auto access to/from their area of Appalachia. They are also monitoring the Class 1 railroads as they “rationalize” their system and services related to reductions in coal volumes.
 - North Carolina is conducting a Thruway Bus Study of providing bus service from Salisbury to Asheville to then hook up with proposed Amtrak service, and are also looking into intercity bus connections to Atlanta as well as an excursion (tourist) train in the Smoky Mountains.
- In general, Appalachia lacks a strong champion in Congress for transportation funding and projects in their rural areas.
- West Virginia increased transportation funding in recent years through approved bonding (supported by local revenue and gas tax increases) and is using those funds to help build out their highway network (including Corridor H).
- Locks and dams are a challenge in the Pittsburgh / Western PA area for inland waterways, with too little funding to maintain them properly. Stakeholders agreed that inland waterways are generally underutilized and lack funding for maintenance and dredging.
 - There was a pilot project to do container on barges in Mississippi but that service never took off and was ended. Mississippi would like to deepen their inland waterway from 9 to 12 feet to be more competitive and allow larger barges.

- The inland port in Greer, SC was built in 2012 and is generally considered a big success based on containers handled and shipped, but there is also an issue about truck traffic moving through smaller downtowns. South Carolina has multiple MPOs in their Appalachian region so they are trying to get together to study and improve that issue.
- Georgia has had the Governor's Road Improvement Program (GRIP) for a number of years which has helped build rural highway projects such as US 441. They are moving forward, in collaboration with ARC, on building a recently approved routing for Corridor A. Georgia did increase gas taxes recently and in rural areas, is mostly concentrated on highway SGR and bridge replacements.
- The Chatsworth / Appalachian Inland Port is scheduled to open later in 2018 and provides direct CSX freight rail service to the Savannah port.
- In Huntsville, Alabama they recently lost their domestic Norfolk Southern service (still have international trains to/from ports). They would like improved east-west highway facilities but little support or funding for that. They'd also like more funding for improving the taxiway at the airport but need funding.
- Corridor N (PA and MD) has recently opened up 11.5 miles but still 5.5 miles needed to complete in Pennsylvania and 2 miles in Maryland.

ADHS Workshop in Huntington, WV

In mid-June 2018, ARC hosted a meeting in Huntington, WV with the Rahall Transportation Institute (RTI) with state DOTs and state FHWA division offices invited to discuss the challenges, opportunities, and strategies around completing the ADHS. Full notes from the brainstorming session can be found in Appendix A at the end of the report. A few key takeaways from the discussions include:

- The completion of some corridors will ultimately require bi-state collaboration and cooperation as some states are holding out on finishing their segments until other states have committed to do the same. This is true for Corridor Q (VA and KY), Corridor N (PA and MD), and Corridor H (WV and VA).
- Some states (such as AL, MS, PA) have little to no intention of completing their ADHS corridors until and unless there is more dedicated ADHS funding.
- Some corridors will likely require a more limited finished highway design to attain completion, such as a Super 2 (with climbing lanes and wider shoulders) or safety and operational improvements to an existing two lane road rather than a full four-lane limited access highway as originally envisioned. This is likely the case for Corridor K in NC and TN, and possibly other corridors.
- Ohio has no plans to do more on their remaining ADHS corridors based on the location and current status of roadways and thus may prefer to designate new routes or highway segments as ADHS miles.

- Potential roles for ARC to play include:
 - Helping to define what corridor “completion” means and what is allowable (such as a Super 2 type highway), and streamline approval of corridor modification proposals by states.
 - Facilitating bi-state and multi-state discussions and political support around how to complete corridors.
 - Working with states to pursue federal funding opportunities such as BUILD and INFRA grants, or more innovation financing approaches such as state infrastructure banks (SIBs) and TIFIA loans through the Rural Projects Fund (with very low borrowing rates).

Completing the ADHS

Central to ARC’s traditional role in transportation as well as critical to supporting Goal 1 (access to opportunities and services) is the completion of ADHS. However, it’s clear that the lack of new dedicated funding for ADHS has hampered corridor completion for most states and has changed how ARC can help work towards system completion. What’s required is more creative, collaborative and strategic work with state partners and FHWA, rather than simply monitoring and encouraging completion. Based on the ADHS workshop in June and a series of other discussions with state DOTs, FHWA and ARC leaders, ARC is committed to developing an ADHS Strategic Plan over the next year to establish priorities, goals and strategies for ADHS completion. See below for more information about the Strategic Plan’s purpose and timeline. The appendix includes a list of possible strategic actions to support ADHS completion, as presented and discussed at the ADHS Workshop in June 2018.

ADHS Strategic Plan

The ADHS Strategic Plan will establish a detailed status of the ADHS, including current status and future plans for unfinished segments, with strategies, priorities and actions to make progress toward overall completion. This document will serve as a reference point for local, state, regional and national leaders to understand the status and future outlook of the ADHS, resulting in critical ideas and action to address completion challenges.

ARC envisions an ADHS Strategic Plan with a few key components:

- History of the ADHS, summary of progress made so far, and economic impact of the ADHS.
- Overview of completion challenges (e.g. limited funding, evolving priorities, etc.).
- Broad completion strategies and priorities, including activities at the national and regional level that will elevate the importance of ADHS completion and help multiple projects move forward. This section may also include discussion of ARC’s goals, vision and priorities related to the ADHS.

- Project-specific completion strategies and priorities – status and completion strategy for all remaining unfinished segments, including assigning completion categories to remaining segments, similar to those presented at the June 12-13, 2018 ADHS Workshop (see Appendix B). This section may also include a tentative prioritization of unfinished routes in each state, if possible.

Expected timeline to complete the ADHS Strategic Plan, with milestones for key deliverables:

- When instructions are sent out in early September 2018 for the annual ADHS status update process, ARC will also include instructions for states to provide a current status and completion plan/categorization for remaining unfinished ADHS segments.
 - Initial ADHS status and completion category designations due **November 1, 2018**.
- ARC will follow up with each state individually to discuss corridor status, completion categories, strategies, and priorities between **November 1, 2018 and March 1, 2019**.
 - Discussions will result in agreed upon status and categories between State DOTs, FHWA and ARC.
- ARC will propose broad completion strategies impacting the entire Region by **January 1, 2019** (e.g., streamlined approval of changes, ARC facilitated multi-state collaboration, greater pursuit of innovative funding options, etc.).
 - States and FHWA to review and provide comments by **March 1, 2019**.
- ARC to incorporate state comments on broad completion strategies, agreed upon status and completion categories by segment, and other supporting content by **May 1, 2019**.
 - States and FHWA to review and provide comments by **July 1, 2019**.
- Final ADHS Strategic Plan completed by **August 1, 2019**.
 - Plan will be published on ARC website and advertised to all stakeholder and partner organizations.

Appendix A – Notes from ADHS Workshop

Brainstorming Session 1 Notes

Group 1 – Georgia, North Carolina, Tennessee

- Corridor K is important for K-12 education, higher education, and recreation. A lot of people travel outside of the county to go to work and school and to go shopping so mobility is very important to them.

- It would be helpful for ARC to clearly define what is officially considered completion of the corridor
- In North Carolina, they are going to build something less than what is in the cost to complete estimate. Resource agencies would like to drive it down to a much lower road. They want to build something that going to build value. They need help from ARC in determining what would be considered as completed in terms of design speed
- Purpose and need – going through CP 1 and 2; still in planning stage. Completing ADHS as purpose and need since its been so important over the past few years
 - Congress would have to make it clear. Not withstanding any provision of need, completing the ADHS system is a valid purpose and need for a highway project, then there would be no question that there is a purpose and need to build Corridor K.

Group 2 – Kentucky, Virginia, West Virginia

- All of the states are co-dependent on each other to finish their portions. Kentucky is waiting on Virginia, West Virginia is waiting on Kentucky, etc. Everyone needs other states to finish their corridors for their corridors to have any value
- We're all waiting on each other
- Inherited a prioritization process – competing for funds across states
- Kentucky has invested \$700 million in Corridor Q. One bridge left and paving is worth \$100 million.
- Virginia has invested money in a bridge that's ready to be crossed
- Help from the outside is needed
- Virginia can complete some of their work in 2121
- They don't want to pave it until they know the corridor is open and can be used by the public so it doesn't need redone by the time its ready to open
- It is important to not waste taxpayer money already invested
- The reason we have ADHS – we can reach every citizen in our states. Without ADHS completed, we're not going to reach all of our citizens. We're not going to provide a safe, efficient roadway system for them.
- How can we downsize and economize? Maybe we don't need a four lane facility. Will that still work for Congress? Freight? Tourism?
- Three state compact? Something that has multi-state agreement – set up to compete for funding, have ARC identify “clusters” of states who will work together to complete their region
- Program of Projects – can submit programs as a group with a lead agency; can submit up to 50 depending on amount of time and resources
- Co-dependency and collaboration

- Would like ARC to help facilitate conversation with general assembly representatives from the states. What each state's goals are, how much money has been invested, what gaps exist, what do we need to complete
- Start at the general assembly level
- ARC would be the right agency to contact/bring everyone together because they know which corridors have overlap in between states

Group 3 – Alabama, Mississippi

- Economic impact – how great of a priority is ADHS? Significant economic impact to finishing these projects, especially now that Toyota/Mazda has a plant and suppliers along the route
- Intent of ADHS is to remove isolation and connect people. For Corridor X1, it is served by four interstate freeways. There isn't a lack of interstate connectivity for that location. From a benefit cost perspective, what is hurting impoverished areas is lack of broadband connection.
 - If you don't have good internet connectivity, you can't function as a business
- Dedicated ADHS funding – flexibility, flexibility, flexibility. We want to be able to use money the best we can to meet our needs. We would not want a carve out.
- Would only complete if extra dedicated funds are available. That is the key.
- If we use project prioritization funds, Mississippi would use a volume to capacity ratio to select projects. ALDOT doesn't have any formula for project selection.
- Cost benefit – while we have justified expense of ADHS (return is greater than one), if I had same amount of money what would it do if I increased lanes on an existing interstate? Would it be greater? You can't just look at it if it's justified, you have to look at if it's the best use.
- Might need political or industry influence to finish out the project
- Regional infrastructure bank – citizens would not like the perception of "giving money away."
- General fund money vs highway trust money

Group 4 – Maryland, Ohio, Pennsylvania

- Understand the importance of ADHS but have to think of the needs as a whole of the state. Some non-ADHS projects have higher priority levels.
- What are the priorities? Need to do general maintenance and construction to maintain federal funds. Showing residents the highest "bang for their buck"
- Need funding available specifically to finish ADHS roads. We are not discrediting the fact that they are needed for economic development but if we need to fix a road, we need to fix a road

- Need more coordination between states for corridors that cross state lines
- Funding is available, but if roads need fixed first that's what we would be focusing on
- Everyone pulling from one regional source is a politically sensitive question. Can't defend that decision to the public
- Maintenance is a priority, doesn't allow a lot of time to be proactive

Brainstorming Session 2 Notes

Group 1 – Georgia, North Carolina, Tennessee

- Generally agree with the approach to the strategic plan
- GA believes they will complete ADHS in 10 years
- NC and TN – see themselves as a mixture of both stages. It is a high priority, but they are considering route modifications in order to continue to move forward.
- Suggestion from NC – making cost to complete estimate simpler/the process in general more simple. Looking for an easier way to get things done, especially if changes are needed
- Are states willing to partner? Couple of questions – how does the strategic plan advance the completion of the corridor? States will have to use resources in order to do these strategic plans – how much will that cost? Is it something that can be done quickly? How in depth is it?
- Both TN and NC are looking to downsize the project due to funding and amount of work that needs to be done
- NC plans to work closely with stakeholders and resource agencies to continue to seek funding such as BUILD or info grant
- Innovative financing – TN no go on borrowing money, not trying to go that direction
- *Ryan Brumfield*: Vision for strategic plan: keeping the issue in the forefront and furthering the workshop conversation so we have a documented plan for the future of the system, being realistic with how we envision finishing the system. We don't want to be back here in 20 or 30 years. Without having to do cost to complete estimate every few years, strategic plan might help

Group 2 – Kentucky, Virginia, West Virginia

- All three states generally agreed with the proposal
- Funding – that's not our role, its Congress who has to do something
- Congress could/should consider special obligation limitation funding
- Have ARC facilitate conversations with states with common corridors to strategic completion
- What do we need to do? Sell to legislators

- Are states willing to participate? Ask ARC to go to Governor's Commission to share action plan that's developed through this workshop
- Champions – people at the workshop are champions; need to take it back home and take it to the next level

Group 3 – Alabama, Mississippi

- Generally agreed with approach outlined in the proposal
- Possible concern with third bullet – it would be hard to have that type of influence.
- To try to sell a metric system for all states would be near impossible
- Anything you would change? Providing obligation authority to the funds that do remain and finding some way to overcome road blocks that exist legislatively, Congressionally
- Continue to sell the purpose (to build champions). Since 2012, with ADHS funding going away, it went off the radar until this workshop came about. Continue to keep the story out in front and push the purpose
- States willing to partner
- It is a priority, but funding is required

Group 4 – Maryland, Ohio, Pennsylvania

- Funding, research, advocacy
- Pennsylvania – emphasis on completing urban projects. In terms of advocacy, they would see themselves completing that before anything else.
- #4 – looking at cost to complete, with Ohio they could create other corridors – alternative way of meeting requirements they have
- With regard to accomplishments, can there be a reconsideration of what accomplishments are?
- What do we need to do to build champions? A lot of champions have left office, aged out, demographic shift to urban areas
- #6 – yes, there is interest but we would like to revisit timeline. Thinks June 2019 is too soon, suggested June 2020. Scheduling would create a challenge
- Overall thought strategic plan would be a good idea
- Corridors – Ohio was thinking about creating other corridors. They have two small bypasses that equal seven miles. Have another one by Huntington. Could they do another bypass that connects US 52 and I 64? It would have a much better chance of receiving funding
- Seven miles on Corridor C. Don't foresee doing any improvements for 40+ years. Does it make more sense to transfer those miles? It would still be in Appalachia, just not the originally designated corridor

Appendix B – Possible Strategic Actions to Support ADHS Completion

- Continue with What's Working – continue to move forward with completing known priority routes, as determined by ARC, FHWA and States.
 - For ARC, priorities are those routes which have the most momentum, those which are closest to being complete and realizing full economic benefits, or those in the most isolated, economically depressed areas of the Region.
- Funding, Research, and Advocacy
 - FHWA and ARC to consider funding regional infrastructure bank feasibility study for ADHS completion.
 - ARC to research the role of transportation in removing isolation, enhancing access in the Region and where the greatest needs in these areas remain.
 - ARC to develop economic metrics for states to consider when making investment decisions with a goal of ensuring ADHS and other rural projects in Appalachia are given a fair shot at funding when pitted against urban projects in formula-based project prioritization processes.
 - ARC to provide technical assistance for states in the Region who wish to submit applications for USDOT discretionary grant programs.
- Strategic Planning – By June 2019, each state, ARC, and FHWA agrees on a status category and 10-year completion strategy for each unfinished route segment (segments as defined in the most recent cost to complete estimate and shown in the eadhs.org GIS system). States submit proposal by February 2019. ARC facilitates negotiation to reach agreement by June. Possible categories and strategies are as follows:
 - *Low priority and stalled* – As currently proposed, route segment is no longer a priority regardless of funding scenario
 - Move miles and use unobligated funds on other priority routes in the Region
 - Keep miles and consider “complete”
 - Retain incomplete status and reassess annually to determine if priorities have changed
 - *Could be priority if modified* – Modified version of proposed route may become a priority if additional funding is available
 - Modify route/alignment
 - Consider innovative funding strategies
 - Advocate and wait for more funding. Reassess annually.
 - *Priority but funding required* – As currently proposed, route is a priority but unlikely to be completed without more funding

As originally presented at the 2018 ADHS Workshop

****Not necessarily representative of what will be included in the final ADHS Strategic Plan****

- Consider route modifications in order to move project forward with some benefit
 - Consider innovative funding strategies
 - Advocate and wait for more funding
 - *Priority and moving forward* – Route is a high priority and state is moving forward with current funding
 - No changes needed
 - *Stalled but status is unchanged due to unique circumstances* – Route is not necessarily a priority but must remain on system and remain pending due to legislation, political sensitivities, or other unique factors (i.e. local and political leaders want project to be completed even though it is unrealistic and not a priority of state DOT).
 - Wait for circumstances to change in order to remove miles or consider “complete”
 - Consider innovative funding or project delivery strategies
 - Wait for more funding which could influence priority
 - Retain incomplete status and reassess annually to determine if priorities have changed
- Streamline Requirements and Processes
 - ARC will help streamline process to adjust route cross section, alignment, and other details if important in order to move the project forward.
 - ARC will be flexible in approving changes, relying on states and FHWA to recommend best solutions for local needs while factoring in regional economic impact. For example, ARC is open to smaller cross sections and lower design speeds if locals and state DOT determine it is the best and most feasible facility type.