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on Intergovernmental Relations



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MEMORANDUM

TO: Commission Members

FROM: Cliff Lippard *Cliff*
Executive Director

DATE: 16 December 2022

SUBJECT: Passenger Rail and Mobility—Update

Today's update provides an overview of the staff's initial research on passenger rail in Tennessee. As Tennessee's population and economy grow, improvements in the state's transportation network will likely be needed to increase or even maintain our current levels of mobility; therefore, Public Chapter 1114, Acts of 2022, and Public Chapter 1124, Acts of 2022, direct the Commission to study passenger rail and other transportation alternatives to improve mobility in Tennessee. Public Chapter 1114 directs the Commission to conduct a study and make recommendations regarding

- the potential for passenger rail service or other suitable alternatives for passenger mobility linking the major cities in each of the grand divisions of the state;
- the alignment, condition, and ownership of tracks, defining an integrated network for intercity rail travel; and
- alternatives for intermodal connections between the affected airports and passenger rail services or other suitable alternatives for passenger mobility.

Public Chapter 1124 directs the Commission to collect information from at least three state departments of transportation that have successfully initiated or are in the process of initiating a new Amtrak intercity passenger rail service. Consistent with these study directives, Commission staff will also investigate non-rail alternatives to improving mobility in Tennessee—for example, expanding the use of regional buses, air travel, and other modes of transportation.

Passenger Rail Services in Tennessee: Intercity Service and Regional Transit

Passenger rail makes up only a small slice of the existing transportation options available in Tennessee. Amtrak currently operates one intercity passenger rail route that runs through Tennessee, which connects Chicago to New Orleans with stops in Memphis and Newbern. The WeGo Star is the lone example of a regional transit commuter rail service in the state, running between Lebanon and Nashville.

These two routes also represent the two different types of passenger rail service: intercity service and transit service. Intercity passenger rail, which primarily serves the needs of tourists and business travelers, provides regularly scheduled service with limited stops connecting two or more distant communities. It is distinct from regional transit, which serves the needs of commuters and generally provides more extensive service within a local area.

There are also important operational and administrative differences. Intercity passenger rail service is most often operated by Amtrak on tracks owned by the private Class I railroads, which are those with annual operating revenue of more than \$944 million.¹ These long-haul passenger rail programs are regulated by the Federal Railroad Administration (FRA), which oversees federal funding available for them. In contrast, regional transit most often utilizes private Class II railroads, which are those with annual operating revenue between \$42 million to \$944 million.² Regional transit programs are regulated by the Federal Transit Administration (FTA), which similarly oversees federal funding available for them.

Potential Economic Benefits of Investing in Passenger Rail

Improving mobility both for travelers between cities via intercity passenger rail and other alternatives and for daily commuters through regional transit projects has the potential to increase economic opportunities and quality of life for Tennesseans. For example, the US Government Accountability Office (GAO) has found that “commuter rail could increase mobility and transportation options, as well as access to employment and essential services for individuals who live in the service area.”³ Furthermore, in

¹ Surface Transportation Board. 2021. “Economic Data.” Accessed November 29, 2022. <https://www.stb.gov/reports-data/economic-data/>.

² Ibid.

³ US Government Accountability Office. 2021. “Commuter Rail: Information on Benefits and Funding Challenges for Service in Less Urbanized Communities.” Accessed November 21, 2022. <https://www.gao.gov/assets/gao-21-355r.pdf>.

August 2018, the Regional Transportation Authority of Middle Tennessee (RTA) opened its first transit-oriented development station on the WeGo Star commuter rail system in Lebanon, Tennessee. According to RTA officials, the Hamilton Springs transit-oriented development includes 13,000 square feet of retail space, 396 luxury apartments, and a 260-unit complex designated for senior residents. Since 2018, an additional three hundred-plus apartment units have been constructed adjacent to the Hamilton Springs station, and the city's planning commission approved an additional 1,346 new housing units to be built within a mile of the station.⁴

Whether the level of development and additional benefits seen in Lebanon is indicative of what can be expected should rail be expanded in other locations is unclear and will be studied as part of our analysis. Staff will discuss potential benefits from passenger rail and other alternatives to promote mobility when we interview officials from the Tennessee Department of Tourist Development and officials from the Tennessee Department of Economic and Community Development.

Most intercity passenger rail in the United States is operated on privately-owned railroads.

The Rail Passenger Service Act of 1970 created the National Railroad Passenger Corporation, known as Amtrak, to alleviate private freight railroad companies from having to provide passenger rail services, which was a condition in the original federal land grants establishing the private railroad network.⁵ Amtrak trains currently travel over 21,400 miles, with 75% of those miles operated on tracks owned by other railroads.⁶ Most of the track that Amtrak trains run on is owned by Class I railroads. In Tennessee, the City of New Orleans Amtrak route is hosted by the Canadian National Railway. But most of the Class I rail lines in the state are owned by CSX and Norfolk Southern.

Amtrak's use of tracks owned by private freight railroads can lead to conflict in no small part because virtually all the Class I railroads' revenue comes from freight. But

⁴ Ibid.

⁵ Eno Center for Transportation. 2020. "Amtrak at 50: The Rail Passenger Service Act of 1970." Last modified October 30, 2020. <https://www.enotrans.org/article/amtrak-at-50-the-rail-passenger-service-act-of-1970/>.

⁶ Amtrak. 2020. "FY 2020 Company Profile." Accessed November 29, 2022. <https://www.amtrak.com/content/dam/projects/dotcom/english/public/documents/corporate/nationalfactsheets/Amtrak-Company-Profile-FY2020-041921.pdf>.

under the Rail Passenger Service Act, Amtrak is granted the right to priority access to the freight railroads' privately-owned tracks for an incremental cost precisely because Amtrak's creation alleviated the railroads' responsibility for providing passenger services. Although Amtrak can claim a right to provide passenger rail service under the Rail Passenger Service Act, there is a national interest in ensuring this service does not cause undo interference with the movement of rail freight or cause interruptions to the supply chain. To ensure passenger service will not interrupt the movement of freight, a rail traffic control study is often done to help determine what, if any, infrastructure improvements may be needed. Disagreements between Amtrak and the host railroads regarding the use of their tracks for passenger service are arbitrated by the federal Surface Transportation Board (STB).

In addition to interviewing representatives from CSX and Norfolk Southern, Commission staff interviewed Amtrak about several routes in Tennessee that might be viable for passenger rail service. Ultimately, it is up to a state sponsor like the Tennessee Department of Transportation (TDOT) to express an interest to the FRA in exploring the feasibility of a route. But when Commission staff interviewed Amtrak officials, Amtrak identified population centers that could benefit from passenger rail connections and Amtrak proposed the following routes for consideration 1) Nashville to Chattanooga to Atlanta; 2) Nashville to Louisville; 3) Memphis to Nashville; 4) Memphis to Carbondale, IL; 5) Bristol, TN to Bristol, VA to Roanoke; 6) Chattanooga north to Bristol; and 7) Chattanooga to Atlanta.

Amtrak routes less than 750 miles are considered state-supported services.

Under the federal Passenger Rail Investment and Improvement Act of 2008 (PRIIA), a cost-sharing system between Amtrak and the states was developed for routes less than 750 miles, also known as state-supported routes.⁷ Previously, operating losses on state-supported routes were covered by both Amtrak and the state, with each entity's specific share determined by negotiations on a route-by-route basis. On some routes established before the Rail Passenger Service Act of 1970, the state partner was paying none of the cost. PRIIA required operating losses on any state-supported route to be almost completely covered by farebox revenues and state subsidies. In fiscal year 2013-14, the first year in which the methodology established under PRIIA was implemented,

⁷ Federal Railroad Administration. 2009. "Overview, Highlights, and Summary of the Passenger Rail Investment and Improvement Act of 2008." Press release, March 10.

https://railroads.dot.gov/sites/fra.dot.gov/files/fra_net/1333/PRIIA%20Overview%20031009.pdf.

state partners' share of costs had increased by 26% from the previous year, while Amtrak's costs decreased by 52%.⁸

As of July 2022, Amtrak operated 29 state-supported routes, none of which had enough gross ticket revenue to cover operating expenses.⁹ As a result, every state-supported route is subsidized by the state in which it operates. Amtrak received \$353 million in subsidies from state-supported routes in fiscal year 2020-21, the latest year data were available.¹⁰ According to interviews with stakeholders in other states, it is to be expected that any state-supported route established in Tennessee would need to be subsidized by the state.

While potential capital improvement costs and annual operating subsidies cannot be accurately determined without a technical feasibility study, examples from other states illustrate how much implementing passenger rail can cost. According to Louisiana's 2020 State Rail Plan, implementing a state-supported Amtrak service from Baton Rouge to New Orleans with two round trips per day would cost \$284 million in capital improvements, in addition to \$7.4 million in annual operating subsidies to Amtrak.¹¹ According to North Carolina's 2015 State Rail Plan, the annual operating subsidies to operate two state-supported Amtrak routes in the state between 2015 and 2019 range from \$13.9 million to \$16.9 million.¹²

⁸ Amtrak. 2022. "Amtrak Has Begun to Address State Partners' Concerns About Shared Costs But Has More Work to Do to Improve Relationships." Accessed November 21, 2022.

<https://amtrakoig.gov/sites/default/files/reports/OIG-A-2022-005%20State%20Supported%20Routes.pdf>.

⁹ Amtrak. 2022. "Monthly Performance Report YTD July FY 2022." Accessed November 21, 2022.

<https://www.amtrak.com/content/dam/projects/dotcom/english/public/documents/corporate/monthlyperformancereports/2022/Amtrak-Monthly-Performance-Report-July-2022.pdf>.

¹⁰ Amtrak. 2021. "Management's Discussion and Analysis of Financial Condition and Results of Operations and Consolidated Financial Statements with Report of Independent Auditors." Accessed November 21, 2022.

<https://www.amtrak.com/content/dam/projects/dotcom/english/public/documents/corporate/financial/Amtrak-Management-Discussion-Analysis-Audited-Financial-Statements-FY21.pdf>.

¹¹ University of New Orleans Transportation Institute. 2020. "Louisiana State Rail Plan." Accessed November 29, 2022.

http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Multimodal/Marine_Rail/Misc%20Documents/2020%20Louisiana%20Rail%20Plan.pdf.

¹² North Carolina Department of Transportation. 2015. "NCDOT Rail Division Comprehensive State Rail Plan." Accessed November 29, 2022. <https://connect.ncdot.gov/resources/Rail-Division-Resources/Documents/2015%20Comprehensive%20State%20Rail%20Plan-%20Full%20Report.pdf>.

There are federal funding sources available.

In November of 2021, President Biden signed the Infrastructure Investment and Jobs Act (IIJA) into law. The law authorized \$1.2 trillion for infrastructure projects, with \$66 billion set aside for rail projects over five years. IIJA also established the Corridor Identification and Development Program, which created a framework to facilitate the development of new, enhanced, and restored intercity passenger rail corridors throughout the country. Administered by the Federal Railroad Administration (FRA), funds from the Corridor ID program can be used to assist with activities such as the National Environmental Policy Act (NEPA) process, design, and preliminary engineering. Proposals for potential corridors are being solicited by the US Secretary of Transportation, who will then select eligible corridors for the program based on several factors. Interested entities, such as states, are asked to submit an expression of interest letter (EIL) to the FRA by the end of 2022 to notify the FRA of an interest in submitting a corridor proposal, although the submission of an EIL does not obligate the entity to submit a proposal. To date, Tennessee has not submitted an EIL for any potential route, but the state could submit a project for FRA consideration when the solicitation for projects is published in the December 2022 Federal Register.

Consolidated Rail Infrastructure and Safety Improvement (CRISI) grants are another source of federal funding. Under IIJA, CRISI grants were appropriated \$5 billion and can be used for a wide variety of rail projects, including those intended for freight rail.¹³ Although these federal programs can be instrumental in establishing intercity passenger rail, future operating costs are expected to fall on states.

Various transportation alternatives are also being explored.

While passenger rail is an established form of mass transportation, other potential alternatives exist. For instance, a startup company has recently started offering luxury sleeper bus trips from Washington DC to Nashville for as low as \$125 one-way. The trip takes about 11 hours, and the bus is equipped with 18 private suites and seats that turn into lie-flat beds. Others have suggested that newly developed hybrid planes could be a potential transportation solution for regional travel. These hybrid planes tend to be smaller than conventional commercial aircraft with about 19 seats.

Companies offering hybrid plane services claim that because of low operating costs, intercity flights on these planes will be cheaper than passenger rail. They can also be

¹³ Congressional Research Service. 2022. "Passenger Rail Expansion in the Infrastructure Investment and Jobs Act (IIJA)." Accessed November 29, 2022. <https://crsreports.congress.gov/product/pdf/IF/IF11920>.

operated out of smaller, regional airports. Artificial intelligence and autonomous vehicles may provide innovative mobility solutions. For example, Vanderbilt University is currently conducting a 100-car, five-day driving experiment integrated into real traffic. It uses artificial intelligence from 2,500 hours of driving to assess whether vehicles with modified, adaptive cruise control can smooth out traffic flows. The experiment will study the increase in fuel economy, improvement of air quality, and reduction in commute times. These autonomous vehicles could be deployed as a platoon to provide intercity connections that could then disperse to individual destinations once they enter an urban area.¹⁴

Ongoing Research and Next Steps

Staff research into the feasibility of intercity passenger rail service and transportation alternatives is ongoing. We have completed a 50-state review of intercity passenger rail and alternative transportation projects in other states. As part of this effort, we identified three states—North Carolina, Pennsylvania, and Virginia—with successful Amtrak intercity passenger rail service. We have invited representatives from the North Carolina Department of Transportation, the Virginia Department of Rail and Public Transportation, the Tennessee Department of Transportation, Amtrak, and freight railroads to participate in a panel discussion during our January 2023 commission meeting. Staff will prepare a draft report for the Commission to consider at the June 2023 meeting and we will make revisions and submit the final report in July.

¹⁴ Fox 17 WZTV Nashville News. 2022. "World's largest traffic experiment being conducted in Nashville along I-24." Accessed November 22, 2022. <https://fox17.com/news/local/worlds-largest-traffic-experiment-being-conducted-in-nashville-along-interstate-24-tennessee-tdot-vanderbilt-university-nissan-north-america-traffic-jam-dept-of-transportation>.