

Intercity Passenger Rail: Federal Policy and Programs

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Intercity Passenger Rail: Federal Policy and Programs

The federal government has been involved in preserving and improving passenger rail service since 1970, when the bankruptcies of several major railroads prompted Congress to create Amtrak—officially, the National Railroad Passenger Corporation—to preserve a basic level of intercity passenger rail service. More recently, the Infrastructure Investment and Jobs Act (IIJA; P.L. 117-58) expanded existing programs and established new ones intended to improve existing passenger rail service or serve new areas. Several issues may pose obstacles to passenger rail expansion for Amtrak as well as for private-sector and state-led projects.

- **Rail ridership, while growing, remains comparatively low.** Prior to the Coronavirus Disease 2019 (COVID-19) pandemic, Amtrak had registered several years of record travel volume. However, Amtrak still served far fewer passengers than road or air travel, including in many corridors linking major cities 100-400 miles apart (where passenger rail is often most competitive). Part of this can be attributed to a lack of frequent service in most markets. Amtrak serves over 500 stations nationwide, but most Amtrak trains run no more than once or twice a day, and only one state receives intercity passenger rail service from another provider.
- **Federal funding commitments for passenger rail have increased, with only modest service improvements.** Amtrak's expenses exceed its revenues each year, and Amtrak makes up the difference with federal appropriations from the general fund. Prior to the COVID-19 pandemic, Amtrak had been on pace to break even on its operating costs (before capital and depreciation costs, which are considerable). When ridership and revenue suddenly dropped during the pandemic, Amtrak experienced its largest-ever operating losses. The subsequently enacted IIJA has provided an increase in guaranteed funding through FY2026 and removed Amtrak's statutory goal to reduce its federal subsidy, even as ridership has not yet returned to pre-pandemic levels. The effective result has been an increase in federal subsidy per rider. IIJA also provided advance appropriations for several discretionary grant programs intended to promote expansion or improvement of passenger rail service. These expansion plans are expected to be led by state-level project sponsors whose priorities may or may not be aligned with those of Amtrak or the federal government. Other programs created by IIJA are intended to assist states in developing corridor plans prior to applying for construction funds, which could serve to harmonize these priorities.
- **Non-Amtrak passenger rail projects have made uneven progress.** Environmental reviews and early construction are proceeding on the state-led California High-Speed Rail program, the largest passenger rail project in the country. The project timeline has been extended repeatedly, capital cost estimates have increased, and a funding source has not yet been identified for a large portion of project costs. One private-sector passenger rail company, Brightline, has launched (non-high-speed) service from Miami to West Palm Beach, FL, and plans to soon extend to Orlando. Brightline has benefited from tax-exempt private activity bonds to finance construction of its initial route in Florida and is planning to do the same on a high-speed route connecting Los Angeles, CA, to Las Vegas, NV. Other private ventures to construct high-speed rail in Texas and ultra-high-speed maglev trains in the Northeast have not advanced to construction.
- **Amtrak on-time performance lags in many areas, but new enforcement measures are available.** A federal law passed in 2008 required two agencies, the Federal Railroad Administration and the Surface Transportation Board, to establish new standards for Amtrak on-time performance. A series of court challenges delayed the promulgation of new standards for several years, but they recently entered into effect. Under the new regime, penalties can be assessed against host freight railroads if poor on-time performance is found to be the result of interference by freight trains using the same tracks.
- **Passenger rail expansion depends on obtaining permission from freight rail companies.** Most Amtrak routes, and many proposals for new routes, require the use of tracks owned by freight railroads. Under a longstanding but rarely enforced federal statute, freight railroads are required to grant Amtrak access to their tracks upon request. In practice, this has generally entailed negotiation for new privately owned infrastructure to be constructed using public funds to mitigate the purported impact on freight traffic. This could impose additional costs in time and expense for the volume of new services contemplated by IIJA.

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Intercity Passenger Rail Overview

The United States has the largest railroad network in the world but a comparatively small passenger rail system. The federal government has been involved in preserving and improving passenger rail service since 1970, when the bankruptcies of several major railroads threatened the continuance of passenger trains altogether. Congress responded by creating Amtrak—officially, the National Railroad Passenger Corporation—to preserve a basic level of intercity passenger rail service while relieving private railroad companies of the obligation to maintain a business that had lost money for decades. In the years since, the federal government has funded Amtrak and, in recent years, has funded other passenger rail efforts of varying size and complexity through grants, loans, and tax subsidies. Most recently, the Infrastructure Investment and Jobs Act (IIJA; P.L. 117-58) expanded existing programs and established new ones intended to improve existing passenger rail service or serve new areas.

Characteristics of the Passenger Rail System

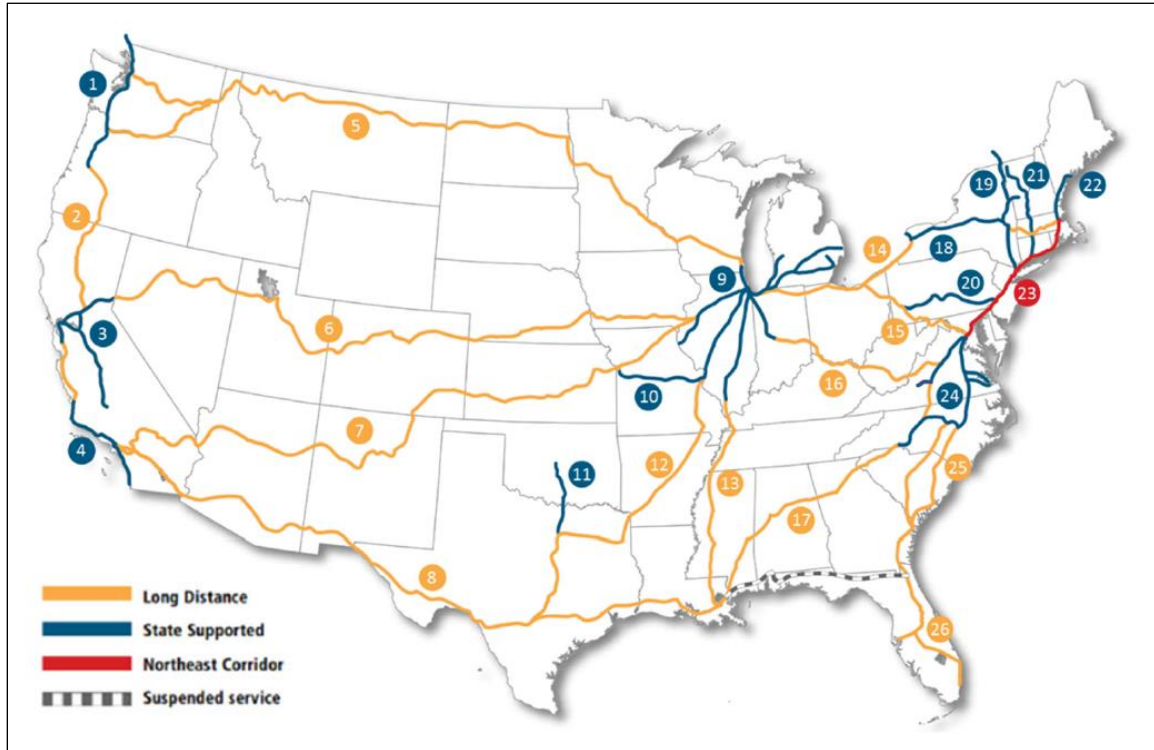
Passenger rail service encompasses both intercity and commuter rail, which are mutually exclusive categorizations under federal law.¹ Amtrak is the primary provider of intercity passenger rail service in the United States (only Florida receives intercity passenger rail service from another provider, Brightline, discussed later in this report).

Amtrak serves over 500 stations in 46 states and the District of Columbia, running more than 300 trains per day on a network approximately 22,000 miles long (**Figure 1**).² Amtrak originally did not possess any rail infrastructure but eventually came to own some assets cast off by bankrupt private railroads. Amtrak is operated as a private company and not a government corporation, but the President appoints the members of its board of directors. Its primary stockholder is the U.S. Department of Transportation (DOT), with a small proportion of common stock held by other railroad companies.

Since 2008, Amtrak services have been grouped into three business lines: (1) the all-electric Washington, DC-New York-Boston Northeast Corridor (NEC), (2) short-distance corridors under 750 miles long with service supported by state governments, and (3) long-distance trains serving destinations over 750 miles apart, usually once per day on an overnight schedule. Under the Fixing America's Surface Transportation Act of 2015 (FAST Act; P.L. 114-94), the state-supported short-distance and long-distance routes were grouped together into the National Network. The Amtrak Thruway network of over 150 intercity bus routes serves as a feeder service for passenger trips originating or terminating in cities off the rail system.

¹ “‘Intercity rail passenger transportation’ means rail passenger transportation, except commuter rail passenger transportation” (49 U.S.C. §24102(4)). “‘Commuter rail passenger transportation’ means short-haul rail passenger transportation in metropolitan and suburban areas usually having reduced fare, multiple-ride, and commuter tickets and morning and evening peak period operations” (49 U.S.C. §24102(3)).

² Amtrak, *FY 2019 Company Profile*, <https://www.amtrak.com/content/dam/projects/dotcom/english/public/documents/corporate/nationalfactsheets/Amtrak-Corporate-Profile-FY2019-033120.pdf>.

Figure 1. Amtrak System Map

Source: Amtrak, *General and Legislative Annual Report & Fiscal Year 2020 Grant Request*.

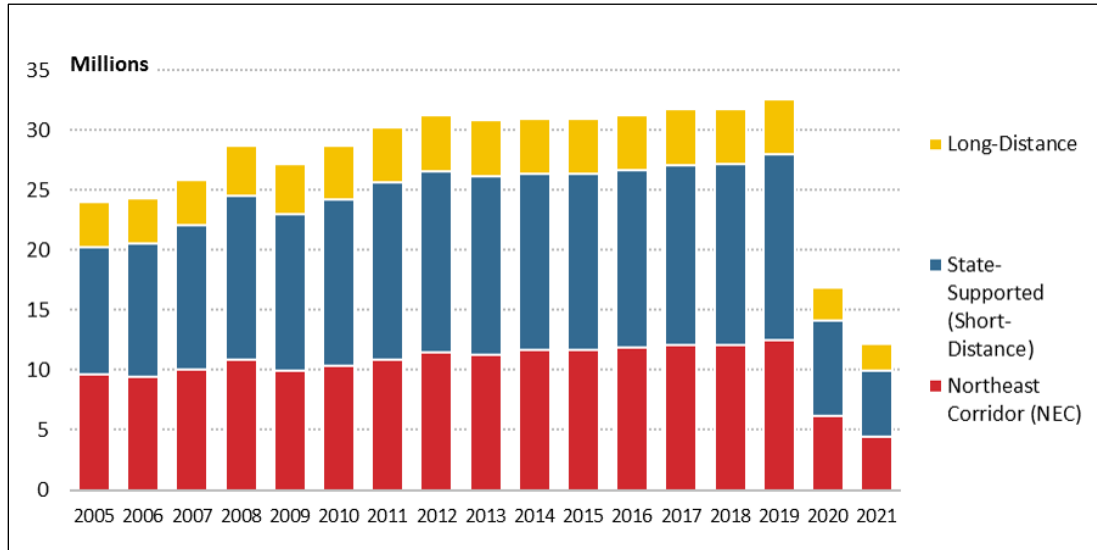
Notes: Numbers on map correspond to the following routes: 1. Cascades; 2. Coast Starlight; 3. Capitol Corridor, San Joaquin; 4. Pacific Surfliner; 5. Empire Builder; 6. California Zephyr; 7. Southwest Chief; 8. Sunset Limited; 9. Blue Water, Carl Sandburg, Hiawatha, Hoosier State (discontinued as of July 2019), Illini, Illinois Zephyr, Lincoln, Pere Marquette, Saluki, Wolverine; 10. Missouri River Runner; 11. Heartland Flyer; 12. Texas Eagle; 13. City of New Orleans; 14. Lake Shore Limited; 15. Capitol Limited; 16. Cardinal; 17. Crescent; 18. Maple Leaf; 19. Adirondack, Empire, Ethan Allen; 20. Keystone, Pennsylvanian; 21. Vermonter, Valley Flyer (initiated August 2019); 22. Downeaster; 23. Northeast Corridor; 24. Carolinian, Piedmont, Virginia; 25. Auto Train, Palmetto; and 26. Silver Meteor, Silver Star. Where State-Supported and Long-Distance routes overlap, the State-Supported route is shown. Amtrak does not serve Alaska or Hawaii. Not shown: Brightline, a privately operated intercity rail service in Florida.

Ridership Performance

A record 32 million trips were taken on Amtrak in 2019, the last full year before ridership plunged during the Coronavirus Disease 2019 (COVID-19) pandemic.³ Amtrak system ridership had exceeded 30 million trips every year since 2011 and had increased 29% over the previous 16 years, with much of that growth coming on Amtrak's state-supported short-distance corridors (**Figure 2**). Approximately 47% of all Amtrak trips were taken on state-supported routes in 2019, compared with 39% on the Northeast Corridor and 14% on long-distance trains. State-supported routes have accounted for the plurality of Amtrak trips among its three business lines every year since 2005. One factor contributing to the growth of state-supported route traffic over that period is that Amtrak and its state partners had added new routes (e.g., in Virginia) and additional daily trains (e.g., in North Carolina).

³ Amtrak, *FY 2019 Company Profile*, <https://www.amtrak.com/content/dam/projects/dotcom/english/public/documents/corporate/nationalfactsheets/Amtrak-Corporate-Profile-FY2019-033120.pdf>.

Figure 2. Amtrak Ridership by Business Line, FY2005-FY2021
(in millions of trips)



Source: Compiled by CRS from Amtrak monthly performance reports.

Despite record pre-pandemic ridership levels, Amtrak passengers have accounted for a relatively small fraction of intercity passenger travel volume nationwide. In 2018, Amtrak generated 6.4 billion passenger-miles (one passenger-mile is equal to one passenger traveling one mile) of traffic volume; by comparison, domestic air travel generated 730 billion passenger-miles, over 100 times as many as Amtrak. The NEC is the only market in which Amtrak serves a larger proportion of intercity trips than airlines, with both lagging far behind highway travel.⁴ Lack of equipment and track capacity have inhibited Amtrak from increasing service on the NEC.

Funding and Support Programs

Federal Funding for Amtrak

Amtrak's expenses exceed its revenues each year (**Table 1**). In FY2019, Amtrak's revenues totaled \$3.3 billion, against expenses of \$4.2 billion, for a net loss of \$875 million. That loss was covered by federal grants made to Amtrak by DOT. Revenues covered 79% of the railroad's total expenses in FY2019, among the highest such ratios over the 16 years for which comparable data are available. Under pressure from Congress and several Administrations, Amtrak reduced—but did not eliminate—its reliance on federal subsidies to support its operations prior to the pandemic.

Amtrak's FY2020 financial performance suffered because of general reluctance to travel, reduced economic activity, and strained finances of state governments that support certain routes. Ridership in April 2020 was nearly 95% below what it had been a year prior, and revenue was down 60%. Amtrak's monthly expenses returned to pre-pandemic levels by September 2020,

⁴ Northeast Corridor Commission, *Northeast Corridor Intercity Travel Study*, September 2015, p. 9, http://nec-commission.com/app/uploads/2018/04/2015-09-14_NEC-Intercity-Travel-Summary-Report_Website.pdf. See also Amtrak, *Amtrak Five Year Service Line Plans, Base (FY 2019) + Five Year Strategic Plan (FY 2020-2024)*, 2019, p. 35, available at <https://www.amtrak.com/reports-documents> under "FY20-24 Service Line Plans."

even as ridership was down nearly 80% compared with the previous year. The full year was a 50% drop in ridership and adjusted operating losses—once projected to be near zero—of over \$800 million. Financial results were even worse in 2021, as ridership was slow to recover. Congress responded by appropriating additional funding as part of pandemic relief legislation.

Table 1. Amtrak Revenues, Expenses, and Federal Support, FY2017-FY2021

(in millions of nominal dollars)

	FY2017	FY2018	FY2019	FY2020	FY2021
Operating revenue					
Ticket revenue	2,181	2,207	2,289	1,238	888
Food and beverage revenue	139	141	144	31	23
State-supported train revenue	224	234	234	342	353
Total passenger-related revenue	2,544	2,582	2,667	1,611	1,264
Commuter/other core revenue	260	285	300	303	308
Other/ancillary revenue	371	342	357	350	362
Total revenue	3,175	3,208	3,323	2,265	1,933
Total expenses*	4,143	4,025	4,204	3,944	3,888
Net loss	(969)	(817)	(881)	(1,679)	(1,955)
Adjustments	775	646	845	890	925
Adjusted operating loss	(194)	(171)	(29)	(789)	(1,030)
Federal capital and operating grants	1,495	1,942	1,942	3,018	4,700

Source: Amtrak monthly performance reports. Federal grants taken from annual and supplemental appropriations.

Notes: FY2021 figures are preliminary. Federal grants in FY2020 and FY2021 include emergency COVID-19 relief funds.

* Starting in FY2017, Amtrak changed its definition of *total expenses* to exclude depreciation and other items, which are captured in the “adjustments” category. Total expenses are therefore calculated as total revenue plus amount of net loss.

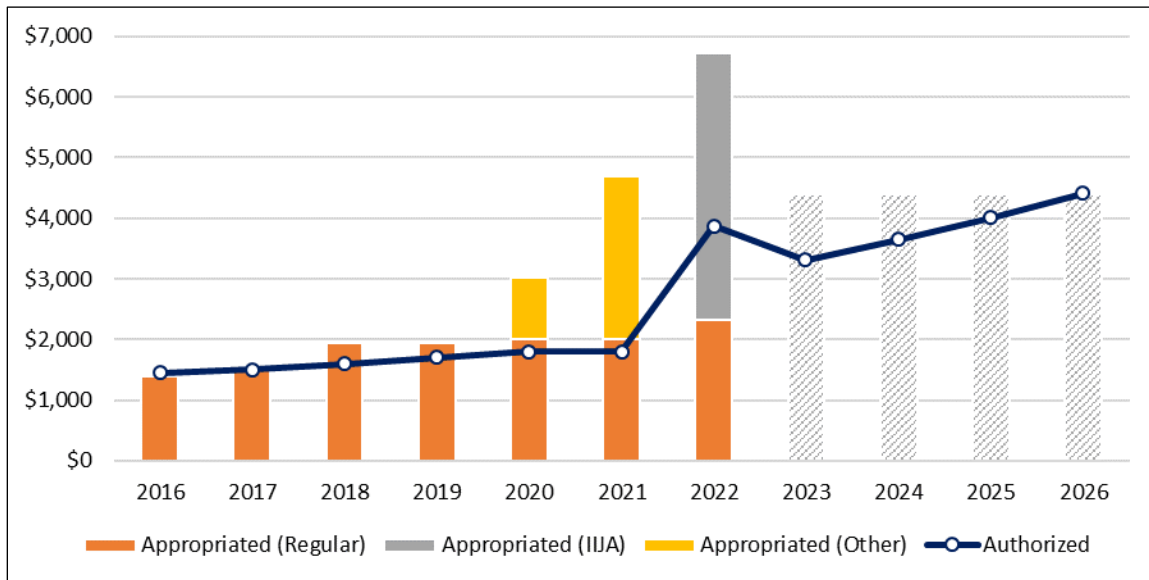
Congress addresses Amtrak’s subsidy in the annual Transportation, Housing and Urban Development, and Related Agencies Appropriations Act. For most of Amtrak’s existence, Congress divided Amtrak’s grant into two categories, operating and capital grants. The operating grant could be thought of as relating to Amtrak’s annual cash loss and the capital grant as relating to the depreciation of Amtrak’s assets, as well as an amount for Amtrak debt repayments.

Congress changed the structure of federal grants to Amtrak in Title XI of the FAST Act (P.L. 114-94). Starting in FY2017, Amtrak’s appropriation has been divided between funding for the operationally self-sufficient NEC, which has large capital needs, and the National Network, which has modest capital needs (as the tracks are almost entirely owned and maintained by freight railroads) but runs an annual operating deficit of several hundred million dollars. This structure was retained when Amtrak funding was reauthorized in IIJA. Section 22101 of IIJA amended Amtrak’s statutory mission and goals, replacing a directive to “minimize United States Government subsidies” with one to “maximize the benefits of Federal investment.”

Amtrak’s reliance on annual appropriations has made it difficult to fund long-term capital projects. DOT’s Inspector General has noted that the lack of long-term funding “has significantly affected Amtrak’s ability to maintain safe and reliable infrastructure and equipment, and

increased its capital program's annual cost.”⁵ IIJA, in addition to reauthorizing Amtrak and other passenger rail program funding for FY2022-FY2026 at higher levels than in previous years, included a multiyear appropriation of \$4.4 billion per year for Amtrak across its two accounts (Figure 3).

Figure 3. Annual Grants to Amtrak (Authorized and Appropriated), FY2016-FY2026
(in millions of nominal dollars)



Source: Compiled by CRS from Congress.gov.

Notes: IIJA = Infrastructure Investment and Jobs Act (P.L. 117-58). For budgetary purposes, advance funding provided by IIJA is counted as FY2022 appropriations to be made available in tranches each year.

Infrastructure Funding and Financing

The federal government's role as a funder of state-proposed passenger rail infrastructure projects has grown over the course of the past three multiyear rail policy reauthorizations. The Passenger Rail Investment and Improvement Act of 2008 (PRIIA; P.L. 110-432, Div. B) created several new grant programs, including the High-Speed Rail Corridor Development program, which received a large infusion of funds from the 2009 stimulus (i.e., American Recovery and Reinvestment Act of 2009; P.L. 111-5) but little to no funding in subsequent years. The FAST Act shifted the focus of federal grant programs from corridor development to achieving a state of good repair and replaced several targeted grant programs with a single program with wide eligibility. IIJA revised certain programs created in PRIIA and the FAST Act and provided advance appropriations for FY2022-FY2026 at considerably higher levels than previous appropriations.

Current programs that can be used to support intercity passenger rail, all administered by the Federal Railroad Administration (FRA), are described below.

⁵ Department of Transportation (DOT), Office of Inspector General, *Amtrak Made Significant Improvements in Its Long-Term Capital Planning Process*, CR-2011-036, January 27, 2011, p. 1.

Federal-State Partnership for Intercity Passenger Rail

The Federal-State Partnership for Intercity Passenger Rail program created in IIJA replaced an earlier program, the Federal-State Partnership for State of Good Repair. The previous program prioritized rehabilitation or replacement of aging infrastructure on the Northeast Corridor; the new program features broader eligibility in terms of project types and selection criteria.

In IIJA, Congress appropriated \$36 billion for the program, of which no more than \$24 billion may be awarded to projects on the NEC. Accordingly, at least \$12 billion will be available for infrastructure projects (including those located on tracks owned by private railroads) necessary for off-NEC network expansion. The law also authorized \$7.5 billion for the program contingent on future appropriations, of which \$3.4 billion to \$4.1 billion would be available for network expansion, with the remainder reserved for projects on the NEC.

The program allows the Secretary of Transportation to issue letters of intent committing future appropriations to selected applicants and/or to enter into phased funding agreements for larger projects. Depending on how DOT structures its grant solicitations, this could allow it to commit some or all of the \$36 billion in supplemental appropriations such that funds would be disbursed over a multiyear period to a single cohort of selected projects.

Restoration and Enhancements

The Restoration and Enhancement grant program was created in the FAST Act and was reauthorized with few changes in Section 22304 of IIJA. The program differs from other rail grant programs in that funds may be used to cover operating (as opposed to only capital) expenses for the first several years to defray costs ordinarily borne by states. Whereas federal law previously allowed the federal government to pay 80% of the cost of operating a new route in the first year, declining to 40% in the third year, under IIJA, federal funds may be used to cover a share that declines from 90% to 30% over six years. This change could lessen the near-term cost of a new route for state governments and allow more time for state sponsors to generate ridership and identify sources of state funding.

The program originally was intended to support reactivation of routes previously served by Amtrak, such as the New Orleans, LA-Mobile, AL, corridor that has been without Amtrak service since 2005. Projects to restore service over routes served by Amtrak prior to 2015 are to be given priority, as well as routes “that would enhance connectivity and geographic coverage of the existing national network of intercity rail passenger service.” This suggests that a route that has received no intercity rail service since before the creation of Amtrak in 1970 would be eligible for funding under the program and entitled to receive priority in the selection process if it connects to the current network.

IIJA appropriated \$250 million for the program, to be withheld from amounts appropriated for Amtrak National Network Grants as described above. Additionally, the law authorized \$250 million for the program contingent on future appropriations.

Amtrak National Network Funds for Corridor Development

IIJA increased annual funding for National Network grants, which can cover Amtrak’s share of eligible costs associated with new and existing routes off the NEC after certain set-asides (including \$250 million for Restoration and Enhancement grants as described above). Under Section 22101(h), Amtrak is now permitted to use up to 10% of National Network appropriations for the purposes of “corridor development,” including the payment of operating expenses in the same decreasing shares permitted under Restoration and Enhancement. Of \$16 billion directly

appropriated for National Network grants through FY2026, up to \$1.6 billion would therefore be available for corridor development, as well as up to \$1.3 billion of the nearly \$13 billion authorized but contingent on future appropriations. Funds set aside for corridor development would be available only for corridors selected as part of the Interstate Compacts program described below.⁶

Amtrak's FY2022 legislative report and grant request proposed a more expansive corridor development program—separate from Amtrak's annual grants—that could be used to cover capital projects in addition to 100% of operating costs for the first few years of a new or expanded service. The provisions enacted in IIJA are more limited.

Other Rail/Multimodal Programs

Consolidated Rail Infrastructure and Safety Improvement

Intercity passenger rail projects remain eligible under the reauthorized Consolidated Rail Infrastructure and Safety Improvement (CRISI) grant program, for which IIJA appropriated \$5 billion over five years and authorized \$5 billion subject to future appropriations over the same period. While a wide variety of passenger rail projects is eligible for funding, CRISI funds historically have gone mainly to projects that benefit freight railroads.

Grade Crossing Elimination

Similarly, Section 22305 of IIJA created a new program designed to fund road-rail crossing grade separation projects, with \$3 billion in appropriations over five years. Grade separation projects may benefit passenger rail corridors, but this is not the program's primary intended purpose. FRA may prioritize other benefits when selecting projects to receive grants.

National Infrastructure Investments

Sections 21201 and 21202 of IIJA codified two National Infrastructure Investments programs to be administered by the Office of the Secretary of Transportation. The programs received a total of \$12.5 billion in supplemental appropriations split between "national" and "local" project assistance (similar to the RAISE program, formerly known as TIGER or BUILD). Another \$17.5 billion is authorized, pending future appropriations. Passenger rail projects remain an eligible use of these funds, although Amtrak would be allowed to apply only in partnership with states, transit agencies, or other eligible applicants. Since these are multimodal programs, passenger rail projects compete with freight rail, highway, and port projects for program dollars.

Rail Rehabilitation and Improvement Financing

Passenger rail projects are eligible under two federal loan programs, the Railroad Rehabilitation and Improvement Financing (RRIF) program and the Transportation Infrastructure Finance and Innovation Act (TIFIA) program. Neither of these programs was designed with passenger rail specifically in mind; RRIF was intended for use primarily by freight railroads, and TIFIA has primarily been used for toll road and transit projects. Because loans require a source of revenue for repayment, and because passenger rail lines rarely generate an operating profit, these programs have seen limited application to intercity rail. However, Amtrak has used RRIF loans to

⁶ Amtrak has asserted that this is the result of a drafting error and that these funds should instead be made available for corridors accepted into the Corridor Identification and Development program. See Amtrak, *General and Legislative Annual Report & Fiscal Year 2023 Grant Request*, March 2022, p. 47.

purchase new locomotives for the NEC. Amtrak's two active RRIF loans, totaling over \$3 billion, now represent almost 60% of total outstanding RRIF loan balances.

Corridor Planning and Development

Rail planning in the United States is not centralized and relies on project sponsors (usually states) to formulate their own plans. The lack of reliable funding for passenger rail capital projects and operations can be an obstacle to planning, as some states may not want to invest time and resources into a plan that may not be achievable without additional federal support. PRIIA contained provisions related to multistate regional rail planning, and IIJA built upon these provisions with new programs for state-led corridor planning.

Intercity Rail Corridor Identification and Development Program

Section 22308 of IIJA directed the Secretary of Transportation to solicit proposals for the development of intercity passenger rail corridors from eligible entities. The Secretary is then directed to work with selected applicants to determine the level of financial support necessary to implement the proposals, support the completion of service development plans, identify a “pipeline” of individual capital projects required for service initiation, and publish an annual report specifying the order in which those projects are to receive federal financial assistance and in what amounts. Projects identified in a service development plan and corridor inventory under this program would be given priority over other projects not located on the NEC when applying for Federal-State Partnership funds. On May 13, 2022, FRA published a notice in the *Federal Register* formally establishing the new program and soliciting expressions of interest.⁷

Interstate Compact Incentive Program

Section 22306 of IIJA created a new program to provide financial support for interstate compacts formed to plan, oversee, or otherwise advance the creation of new intercity passenger rail routes. Up to 10 compacts among two or more states are eligible to be selected for a grant of up to \$1 million per year; the appropriations are provided by a \$3 million annual set-aside from Amtrak National Network grant funds.

Grants to interstate compacts would mainly be available for planning and administration, not construction of infrastructure or operation of services. Pursuant to the Amtrak Reform and Accountability Act of 1997 (P.L. 105-134), interstate compacts concerning passenger rail service do not require congressional approval.

Northeast Corridor Commission and NEC Future

PRIIA contained a requirement for a corridor improvement plan for the NEC. The planning project, NEC Future, has identified goals for rail service along the corridor and recommended specific infrastructure investments. A corridor-level environmental impact statement evaluated several alternatives, from maintaining the corridor at what are essentially current service levels to building a brand new railway capable of much faster trips but at a considerably higher capital cost. The alternative approved by FRA in July 2017 fell in between these two options and would improve the existing infrastructure without building a new parallel route.

One limitation of the existing Northeast Corridor is the path taken by trains along the coast of Long Island Sound in southeastern Connecticut. The tight curves along the shore reduce speeds

⁷ Federal Railroad Administration (FRA), “Notice of establishment,” 87 *Federal Register* 29432, May 13, 2022.

and lengthen trip times. NEC Future planners initially recommended the construction of new tracks set farther inland along a straighter path but after facing opposition from local groups objecting to the construction of new rail lines, this segment of the corridor was marked for further study.⁸

Another obstacle to improving service on the NEC is that several state agencies own portions of the track in addition to Amtrak. As a result, Amtrak does not entirely control operations along the corridor.

Federally Led Multistate Rail Plans

PRIIA also contained a requirement for FRA to develop a National Rail Plan. Rather than preparing a standalone document, FRA has issued guidance for states to follow when drafting their own rail plans, as well as cost estimation and cost-benefit analysis guidance for project sponsors to follow when planning new or improved rail lines. FRA has also worked with groups of states to create regional rail plans, identifying service goals and rough cost estimates for passenger rail service between major cities. Rail studies have been completed for the Southwest, Midwest, and Southeast regions. These regional rail plans are nonbinding and have no construction funding attached but have identified notional corridors and service levels for future evaluation.

Amtrak Connects US 2035

As Congress deliberated on IIJA, Amtrak released its own proposal for network expansion—Connects US 2035. The proposal identifies some 40 potential new routes and another 20 or so existing routes that would receive improved service, such as additional trains per day or faster scheduled trip times. All of these routes would be located off the NEC (at least in part) and be less than 750 miles in length, meaning each would be subject to a cost-sharing requirement between Amtrak and the states served. All final route alignments, schedules, speeds, and service levels would be jointly determined by Amtrak, state partners, and the freight railroads that host Amtrak's trains outside the NEC. Amtrak would not be able to implement any of the proposed changes unilaterally.

Many changes Amtrak proposes are drawn from existing regional rail or corridor plans. Some, such as extensions of current service in Vermont or Virginia, enjoy strong support and are underway. Others, such as improved service between Albany and Buffalo, NY, have been studied but not implemented, in part because of the high estimated cost of the work required to allow higher speeds. Still others, such as establishing service between Atlanta and Nashville, have not been studied in detail. Amtrak has said it conducted its own basic ridership and revenue modeling exercise for each of the proposed changes, but detailed results of its analysis have not been made public.

Amtrak has estimated that its proposal would require an investment of \$5 billion per year over 15 years (\$75 billion). Funding appropriated by IIJA for Amtrak's National Network is well short of what Amtrak says is needed to implement its proposal, but IIJA also provided funds for discretionary grants that could be used to fund individual elements of the proposal if put forward by a project sponsor and selected for funding.

⁸ Ana Radelat, "Feds drop Old Saybrook-to-Rhode Island bypass from final rail plan," *CT Mirror*, July 12, 2017, <https://ctmirror.org/2017/07/12/feds-drop-old-saybrook-to-rhode-island-bypass-from-final-rail-plan/>.

Non-Amtrak Passenger Rail Projects

California High-Speed Rail

The California High-Speed Rail (CAHSR) program is a project led by the State of California with the goal of implementing a system capable of speeds in excess of 200 miles per hour between Los Angeles and San Francisco via the Central Valley cities of Fresno and Bakersfield. Ground was broken on the Central Valley section in January 2015. Since that time, the California High-Speed Rail Authority (CHSRA) has completed civil works, such as construction of viaducts or grade separations, using \$3.9 billion of federal High-Speed Intercity Passenger Rail (HSIPR) grants,⁹ state bond funds, and other sources.

Funding for CAHSR has never been committed in sufficient quantities to cover the projected cost of constructing the “Phase 1” system connecting San Francisco and Los Angeles or extensions to Sacramento and San Diego. CHSRA’s 2022 business plan estimates the capital cost of the Central Valley segment alone at between \$22.5 billion and \$23.9 billion and the Phase 1 system at between \$76.7 billion and \$113.2 billion.¹⁰ The State of California has committed funds to complete an initial 171-mile segment between Merced and Bakersfield, and construction of the full “Phase 1” system connecting San Francisco to Los Angeles—originally anticipated to be completed in 2028—is now expected to take until 2033.¹¹

All Aboard Florida/Brightline

After the State of Florida turned down a federal high-speed rail grant that would have funded a Tampa-Orlando rail project, the private company All Aboard Florida (AAF) began making plans to initiate intercity passenger rail service between Miami and Orlando via West Palm Beach. That service, now called Brightline, operates between Miami and West Palm Beach using tracks owned by Florida East Coast Industries, a regional freight railroad, that run parallel to and east of those used by Amtrak. Brightline is building new track that would allow operation between West Palm Beach and Orlando. The diesel-powered trains are expected to provide a three-hour trip between Miami and Orlando, more than two hours faster than Amtrak’s services between those two cities.

AAF initially sought a \$1.6 billion federal RRIF loan to finance construction of the portion of the route between West Palm Beach and Orlando, but no loan was authorized. Instead, AAF applied to DOT for allocations of \$600 million of qualified private activity bonds to finance work on the Miami-West Palm Beach segment and another \$2.25 billion for the West Palm Beach-Orlando segment.¹² The interest on these bonds is exempt from federal income tax; hence, the federal government is subsidizing the project by allowing it to borrow money from private investors at a lower interest rate than it would have to pay without the federal tax exemption.¹³ Brightline rail service between Miami and West Palm Beach began in 2018 and resumed in 2021 after being

⁹ The High-Speed Intercity Passenger Rail program was created under the Passenger Rail Investment and Improvement Act of 2008 (PRIIA; P.L. 110-432, Div. B). No funds have been appropriated for the program since FY2010.

¹⁰ California High-Speed Rail Authority, *2022 Business Plan*, May 2022, p. 79.

¹¹ California High-Speed Rail Authority, *2022 Business Plan*, May 2022, p. 92.

¹² Virgin Trains USA LLC, Form S-1 Registration Statement, November 16, 2018, p. F-39; Brightline, “Virgin Trains USA Closes \$1.75 Billion Private Activity Bond Sale to Fund Phase 2 Expansion to Orlando,” press release, April 19, 2019; Shelly Sigo, “\$950 million in bonds for Florida’s Virgin Trains USA price Thursday,” *Bond Buyer*, June 12, 2019.

¹³ CRS Report RL31457, *Private Activity Bonds: An Introduction*, by Steven Maguire and Joseph S. Hughes.

suspended due to the COVID-19 pandemic. Two additional stations along its South Florida route are under construction, paid for by local governments. AAF has said Brightline will initiate service to Orlando in 2023.

Brightline has announced plans to extend its service from downtown Miami to the city's cruise ship terminals and from Orlando to Tampa.¹⁴ The Tampa extension received, in 2022, a \$16 million CRISI grant to support preliminary engineering and environmental studies. Although Brightline had benefited from indirect federal support in the form of tax-exempt bonds, this was the first direct federal financial support. Proposals to make it easier for private passenger rail carriers to apply for federal funding or financing have been introduced in Congress but have not been adopted.

XpressWest/Brightline West

In 2018, AAF acquired XpressWest, a private company planning to build and operate a passenger rail service between Las Vegas, NV, and the Los Angeles area. XpressWest had been in the early stages of applying for an RRIF loan that was ultimately not issued. The project was subsequently rebranded Brightline West. In January 2021, the project's sponsor stated that it had contracted with Siemens Mobility for trainsets,¹⁵ and it had reached design and construction agreements with the California and Nevada departments of transportation to build in the Interstate 15 corridor between Las Vegas and Apple Valley, CA. Further refinements of the project plan moved the line's southern terminus to Rancho Cucamonga, CA, which is served by Los Angeles's commuter rail system. As in Florida, Brightline West seeks to raise construction funds by selling private activity bonds, but a proposed bond sale in 2020 was postponed due to unfavorable market conditions and has not yet been rescheduled. Construction is not expected to begin until 2023 at the earliest.¹⁶

Texas Central Railway

Texas Central Partners, a private company, has proposed to construct an electrified high-speed rail line between the cities of Dallas and Houston. The project, which is backed by a Japanese rail operator and would use Japanese high-speed rail technology and equipment, would reach top speeds of 186 mph and take 90 minutes end-to-end. There is currently no direct passenger rail service linking Dallas and Houston. Although the sponsors have stated in the past that "this project is not backed by public funds,"¹⁷ news reports have indicated that the project is likely to depend on long-term loans from the federal RRIF and TIFIA programs.¹⁸

The project is not yet under construction. It completed environmental reviews in 2020 and received a "rule of particular applicability" from FRA that will allow use of technology and equipment built to Japanese specifications, which would otherwise not comply with FRA safety and operating rules, but it has not received all permits necessary for construction. One persistent

¹⁴ Brightline, "Brightline Florida," <https://www.gobrightline.com/florida-expansion>, viewed February 2, 2021.

¹⁵ These would require the FRA to waive certain regulations. See FRA, "Petition for a Waiver of Compliance," 86 *Federal Register* 8479, February 5, 2021.

¹⁶ "Brightline West, Los Angeles to Vegas High-Speed Rail Project Updates," Construction Review Online, July 8, 2022, <https://constructionreviewonline.com/biggest-projects/brightline-west-los-angeles-to-vegas-high-speed-rail-project-updates/>.

¹⁷ Texas Central, "Learn the Facts," <http://www.texascentral.com/facts/>, viewed October 14, 2016.

¹⁸ Eric Nicholson, "Texas Central Railway's Fuzzy Definition of 'Privately Financed,'" *Dallas Observer*, August 11, 2015, <http://www.dallasobserver.com/news/texas-central-railways-fuzzy-definition-of-privately-financed-7479867>.

obstacle has been the acquisition of land on which to build the new tracks. There have been conflicting county-level court rulings on whether Texas Central can take the land it needs using eminent domain. The Texas Supreme Court ruled in June 2022 that the company did have eminent domain powers.¹⁹ That same month, the company's CEO resigned and its board of directors disbanded, leaving the project's future in doubt.

Northeast Maglev

Northeast Maglev, a privately held company associated with the Central Japan Railway Company, has proposed linking Washington, DC, with New York City with trains using magnetic forces to create a cushion of space between a vehicle and its guideway, operating at top speeds in excess of 300 miles per hour. Maglev technology has seen limited real-world use since its first demonstrations in the 1980s, in part because the straight and level tracks necessary to maintain high speeds require extensive viaducts and tunneling. The first 36 miles of the Northeast Maglev would be built mostly in tunnels between Washington and Baltimore, MD, with a stop at BWI Thurgood Marshall International Airport in between. The company has stated that half the cost of its project will be financed by the Japanese government, and "the remainder of funding will come from U.S. government loan and grant programs, and the private sector."

A Draft Environmental Impact Statement for the project, published in January 2021, projected capital costs of \$10 billion to \$13 billion, roughly \$280 million to \$360 million per mile. The cost estimates are in line with projected per-mile costs of building a maglev project currently under construction in Japan, but there are few examples of U.S. public transportation projects involving extensive tunneling with per-mile costs similar to those in Japan; most are more expensive.

Passenger Rail Issues

On-Time Performance

In PRIIA, Congress directed FRA and Amtrak, in consultation with the Surface Transportation Board (STB) and other railroads, to establish metrics and standards for on-time performance of Amtrak trains operating on freight railroad tracks. As enacted, the law contained a provision—Section 207(d)—allowing STB to resolve disputes between the parties negotiating these standards by appointing an arbitrator after an initial deadline had passed, but that provision was eventually severed in a set of federal court rulings.²⁰ A set of standards issued in 2010 (but never enforced) was therefore voided, and new standards were issued by regulation in 2020.²¹

Under the regulation, STB can initiate an investigation of a host railroad either at Amtrak's request or on its own accord if an intercity passenger train were to fail to meet the on-time performance standards for two consecutive quarters. If STB finds that on-time performance has suffered because of a host railroad's failure to honor Amtrak's statutory priority over other types of rail traffic, it may award damages to Amtrak.

¹⁹ James Frederick Miles v. Texas Central Railroad & Infrastructure, Inc. and Integrated Texas Logistics, Inc., (Supreme Court of Texas 2022).

²⁰ U.S. Court of Appeals for the District of Columbia Circuit, Association of American Railroads v. United States Department of Transportation, Decision of July 20, 2018.

²¹ These standards are codified in Part 273 of Title 49 of the *Code of Federal Regulations*.

The new standards, which measure the percentage of riders who arrive at their ticketed destinations on time (“customer on-time performance”) rather than the percentage of passengers or trains arriving at the train’s final destination on time, entered into effect on July 1, 2021. Over the first two quarters for which reports have been published, Q1 and Q2 FY2022, 12 of 43 Amtrak routes were found to have met or exceeded the 80% customer on-time performance threshold for two consecutive quarters; 24 routes failed to meet the required standard in either quarter and could now be subject to STB investigation.²²

Cost of Access to Freight Railroad Tracks

Plans for expanded passenger rail service have generally assumed that Amtrak would operate trains over existing freight tracks. However, freight railroads often demand that additional infrastructure be constructed at public expense before new passenger service can start, on the grounds that without added capacity, the passenger traffic would interfere with freight trains.

Freight railroads rely on rail traffic simulation models to identify the projects necessary to accommodate new passenger trains. Railroads defend these projects as necessary to avoid impeding the movement of freight, but they can be costly, even for modest passenger rail service improvements. For example, Pennsylvania has announced an agreement to invest over \$200 million in state funds to increase from one train to two trains per day in each direction between Harrisburg and Pittsburgh.²³

One dispute over the cost of obtaining access for passenger trains involves service along the Gulf Coast. This route was previously served by the long-distance *Sunset Limited* train, which ran once daily in each direction between Los Angeles, CA, and Orlando, FL, prior to the suspension of all service east of New Orleans as a result of Hurricane Katrina in 2005. Amtrak has proposed to restore service over a portion of the route by operating two daily trains in each direction between New Orleans and Mobile, AL. The Restoration & Enhancement grant program created in the FAST Act was intended to fund a portion of the restored route’s operating costs. The route was selected to receive federal funds from this program in 2020, but progress has been slowed due to claims by the intended host railroads Norfolk Southern Railway and CSX Transportation that Amtrak’s service will delay freight trains unless Amtrak or a state sponsor pays for additional infrastructure.

A federally led working group estimated that \$120 million in project costs may be necessary to initiate service, while freight railroads have cited a figure closer to \$400 million. With no agreement in place, Amtrak invoked a provision of federal law that allows STB to compel host railroads to grant access to additional passenger trains.²⁴ The dispute has come before STB for adjudication in an early test of the board’s attitude toward passenger rail expansion plans that are to be paid for with funds authorized in IIJA. A bill to reauthorize STB introduced in the House (H.R. 8649) would create a Passenger-Freight Rail Transportation Advisory Council to provide recommendations to resolve future disputes between freight and passenger rail carriers.

²² Federal Railroad Administration, Quarterly Report on the Performance and Service Quality of Intercity Passenger Train Operations, Covering the Quarter Ending December 2021 (First Quarter of Fiscal Year 2022), <https://railroads.dot.gov/elibrary/fy22-q1-service-quality-report>.

²³ Commonwealth of Pennsylvania, “Governor Wolf Announces Commonwealth, Norfolk Southern Operating Agreement to Expand Western Pa. Passenger-Rail Access,” press release, June 27, 2022, <https://www.governor.pa.gov/newsroom/governor-wolf-announces-commonwealth-norfolk-southern-operating-agreement-to-expand-western-pa-passenger-rail-access/>.

²⁴ 49 U.S.C. §24308(e).

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