

CHAPTER 2

KENTUCKY'S EXISTING RAIL SYSTEM

INTRODUCTION

This chapter provides an assessment of Kentucky's existing rail system, describes the current condition and performance of rail operations on the current rail system, and identifies the current needs and opportunities for rail service in Kentucky.

All railroads operating in Kentucky were contacted to provide updated details on their operations, needs, and proposed projects.

2.1. DESCRIPTION AND INVENTORY OF KENTUCKY'S EXISTING RAIL SYSTEM

This section provides a detailed analysis of current Kentucky rail assets and rail operations to create a profile of Kentucky freight and passenger rail systems.

2.1.1. Overview of Existing Rail Network

FREIGHT RAIL NETWORK

The Kentucky rail network is comprised of approximately 2,800 total active rail miles in 2025. The majority of these rail miles are privately owned and operated by 16 common carrier railroads, including five Class I railroads, one Class II or regional railroad, and 12 Class III or short line railroads.

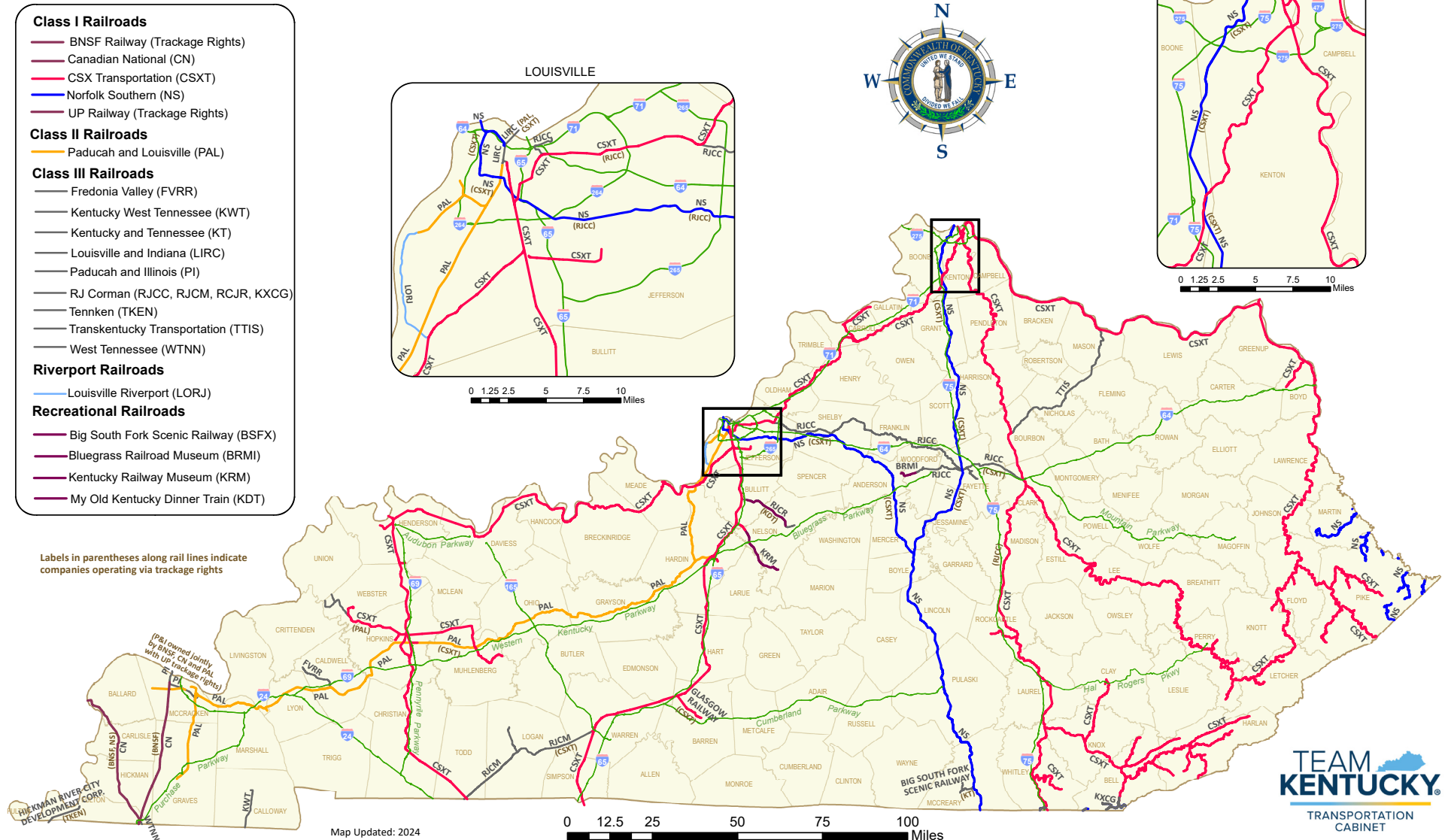
Figure 2-1 provides an overview of the state's existing rail network.

The freight railroad infrastructure in Kentucky is mapped in [Interactive Application 2-1](#).

Table 2-1 illustrates the rail mileage owned and operated (via lease or trackage rights) for each of these railroads in Kentucky as of 2025. This table does not include United States Department of Defense (USDOD) railroad facilities at Fort Knox (7 miles), Fort Campbell (20 miles), or Blue Grass Army Depot (23 miles).

Figure 2-1. Active Rail Lines in Kentucky

KENTUCKY ACTIVE RAIL LINES



Source: Kentucky Transportation Cabinet, 2024

Table 2-1. Kentucky Freight Railroad Network Summary

Railroad	Reporting Mark	Railroad Classification	Route Miles Owned in Kentucky	Trackage Rights Miles in Kentucky
BNSF Railway	BNSF	I	0	85
Canadian National Railway	CN	I	86	0
CSX Transportation	CSX	I	1,492+17*	49
Norfolk Southern Railway	NS	I	366	63
Union Pacific Railroad	UP	I	0	12
Paducah & Louisville Railroad	PAL	II	265	15
Fredonia Valley Railroad	FVRR	III	10	0
Kentucky and Tennessee Railway	KT	III	0	8
Kentucky and West Tennessee Railway	KWT	III	12	0
Louisville & Indiana Railroad	LIRC	III	4	0
Paducah & Illinois	PI	III	15	0
RJ Corman – Bardstown Line	RJCR	III	20	0
RJ Corman – Central Line	RJCC	III	114	0
RJ Corman – Memphis Line	RJCM	III	63	0
RJ Corman – Knoxville and Cumberland	KXCG	III	22	0
TennKen	TKEN	III	12	0
Transkentucky Transportation	TTIS	III	50	0
West Tennessee Railroad	WTNN	III	1	0
Louisville Riverport	LORJ	N/A	13	0

*Note 1: CSX mileage includes the 17-mile Carrollton Railroad, a CSX subsidiary.

**Note 2: NS no longer leases the CNO&TP Railroad Corridor from the City of Cincinnati as it completed the purchase of the corridor in 2024.

Class I Railroads

As of 2025, Class I railroads are defined as those railroads that have an annual carrier operating revenue of \$1.053 billion or more, according to the Surface Transportation Board (STB).¹ There are seven Class I railroads in the U.S. and Canada, some of which also have transportation linkages to Mexico. Five of these Class I railroads have connections to Kentucky.

1. U.S. Surface Transportation Board, Economic Data, Revenue Deflators and Classification Thresholds. Retrieved from: [https://www.stb.gov/reports-data/economic-data/#:~:text=Current%20thresholds%20establish%20Class%20I,revenue%20less%20than%20\\$2446.3%20million.](https://www.stb.gov/reports-data/economic-data/#:~:text=Current%20thresholds%20establish%20Class%20I,revenue%20less%20than%20$2446.3%20million.)

- **BNSF Railway (BNSF)**

- BNSF is one of the largest Class I railroads in North America in terms of track-miles and market share. BNSF is headquartered in Fort Worth, Texas. As of 2021, BNSF operated about 32,500 miles of track in 28 states and three Canadian provinces. About 23,191 route-miles are owned by BNSF systemwide, with the remainder operated by the railroad pursuant to trackage rights or leases.
- The Burlington Northern Santa Fe Railway, now rebranded as BNSF Railway, was created on September 22, 1995, from the merger of the Burlington Northern Railroad and the Santa Fe Pacific Corporation (parent company of the Atchison, Topeka & Santa Fe Railway), further expanding the reach of Kentucky rail shippers to a greater array of origins and destinations in the larger combined network. Since 2010, BNSF has been a subsidiary of Omaha, Nebraska-based investment firm, Berkshire Hathaway.
- BNSF owns 0 miles of track in Kentucky, but accesses Paducah, Kentucky from Illinois via trackage rights over the CN.

- **Canadian National Railway (CN)**

- Canadian National (CN) is a North American rail carrier based in Montreal, Quebec, Canada. CN operates approximately 20,000 route-miles of track spanning both Canada and the central United States.
- CN gained entry to Kentucky through its 1998 acquisition of the Illinois Central Railroad (IC) which had constructed a principal main line route spanning from Chicago, Illinois to New Orleans, Louisiana via Memphis.
- CN owns 86 miles of track in Kentucky.

- **CSX Transportation (CSX)**

- Headquartered in Jacksonville, Florida, the CSX Transportation (CSX) network encompasses approximately 36,752 track miles in 23 states, the District of Columbia, and Canada, serving 70 ports and major markets in the eastern U.S. CSX serves thousands of production and distribution customers through connections to more than 240 short line and regional railroads.
- CSX has a large presence in Kentucky. The Kentucky portion of CSX, as it stands today, mainly consists of lines that were once operated by the Louisville and Nashville Railroad (L&N).
- CSX owns 1,509 miles of track in Kentucky.



Source: Kentucky Transportation Cabinet

- **Norfolk Southern Railway (NS)**
 - Headquartered in Atlanta, Georgia, the Norfolk Southern (NS) network encompasses approximately 36,119 track miles in 22 states and the District of Columbia, serving 43 ports and major markets in the eastern United States. NS has thousands of production and distribution customers through connections to more than 262 short line and regional railroads.
 - The Kentucky portion of the NS system, as it stands today, consists of the surviving lines that were primarily operated by the Southern Railway (SOU). The NS network has coverage mainly in central Kentucky. NS does not serve western Kentucky.
 - NS owns 154 miles of track in Kentucky.
- **Union Pacific Railroad (UP)**
 - Union Pacific Railroad (UP) possesses a North American rail network that encompasses 32,452 route-miles of track in 23 states. UP's network links Pacific Coast and Gulf Coast ports with gateways in the Midwest, providing access to other rail carriers serving the eastern United States. UP also operates several routes to key Mexican and Canadian gateways. The Omaha, Nebraska-based railroad handled 8.0 million carloads in 2021 and invested \$3 billion into its network.
 - UP owns 0 route-miles of track in Kentucky, but it interchanges unit coal trains with the Paducah & Louisville Railway (PAL) in Paducah, Kentucky.

Class II Railroads

As of 2025, the STB defines Class II railroads as those earning annual operating revenue between \$47.3 million and \$1.053 billion.

- **Paducah & Louisville Railway (PAL)** – The Paducah & Louisville Railway (PAL) is a Class II regional railroad operating in central and western Kentucky. PAL was established in 1986 through acquisition of a line owned by the Illinois Central Railroad. PAL operates over 280 route miles within Kentucky. In Paducah, PAL is part owner of the Paducah & Illinois Railroad (PI) and interchanges with BNSF, CN, and UP in Paducah. PAL also interchanges with CSX and NS in Louisville.

Class III Railroads

As of 2025, the STB defines Class III railroads as those earning annual operating revenue less than \$47.3 million.

- **Fredonia Valley Railroad (FVRR)** – The Fredonia Valley Railroad (FVRR) is an industrial railroad that operates 10 route miles in Western Kentucky. It is owned by Holcim US, which owns and operates a rock quarry in Fredonia. The FVRR interchanges with the PAL in Princeton.
- **Kentucky and Tennessee Railway (KT)** – The Kentucky and Tennessee Railway (KT) is a Class III short line railroad that operates 8 route miles of track out of Stearns, Kentucky in McCreary County. In addition to serving freight shippers in Stearns, the KT operates the Big South Fork Scenic Railway over its line as a tourist attraction.

- **Kentucky West Tennessee Railway (KWT)** – The Kentucky West Tennessee Railroad (KWT) is a Class III short line railroad that owns and operates 12 route miles of track in Kentucky and 72 total route miles, with its principal line extending north from Bruceton, Tennessee to Murray, Kentucky. The KWT is owned by Genesee and Wyoming, a short line railroad holding company.
- **Louisville & Indiana Railroad (LIRC)** – The Louisville & Indiana Railroad (LIRC) is a Class III short line railroad that operates 4 route miles in Kentucky and 113 total route miles. The LIRC route spans from Indianapolis, Indiana to Louisville, Kentucky. LIRC is a subsidiary of Anacostia Rail Holdings. Of note, the LIRC hosts CSX freight trains between Indianapolis and Louisville as overhead traffic in addition to its own local freight operations.
- **Paducah & Illinois (PI)** – The Paducah and Illinois (PI) is a Class III short line railroad that owns 15 route miles in the vicinity of Paducah, Kentucky, which includes an important crossing of the Ohio river into Illinois. The PI is equally owned by CN, BNSF, and PAL. Additionally, UP has trackage rights over the PI to access Paducah via Illinois.
- **RJ Corman (RJC)** – The RJ Corman Railroad Group owns four Class III short line railroad properties in Kentucky:
 - RJ Corman Bardstown Line (RJCR) — The RJ Corman Bardstown Line (RJCR) is a Class III short line railroad that owns and operates 20 route miles between Bardstown Junction (near Shepherdsville, Kentucky) and Bardstown, Kentucky. The RJCR interchanges with CSX at Bardstown Junction.
 - RJ Corman Central Kentucky Lines (RJCC) — The RJ Corman Central Kentucky Lines (RJCC) is a Class III short line railroad that owns and operates 114 route miles between Louisville, Kentucky and Lexington, Kentucky. The RJCC interchanges with CSX in Louisville and Winchester and with NS in Lexington.
 - RJ Corman Memphis Line (RJCM) – The RJ Corman Memphis Line (RJCM) is a Class III short line railroad that owns and operates 113 route miles between Bowling Green, Kentucky and Cumberland City, Tennessee (63 route miles in Kentucky). The RJCM interchanges with CSX at Bowling Green.



Source: Kentucky Transportation Cabinet

- RJ Corman Knoxville and Cumberland Gap Line (KXCG) – The RJ Corman Knoxville and Cumberland Gap Line (KXCG) is a Class III short line railroad that owns and operates 131 route miles in Northern Tennessee and Southern Kentucky (approximately 22 miles are in Kentucky). The KXCG line was acquired in 2022 from NS. It interchanges with NS in Middlesboro and Knoxville, TN.
- **TennKen (TKEN)** – The TennKen Railroad (TKEN) is a Class III short line railroad established in 1983 that operates between Dyersburg, Tennessee and Hickman, Kentucky. The TKEN owns and operates 12 route miles within Kentucky and interchanges with CN at Dyersburg. The TKEN is owned by the West Tennessee Railroad.
- **Transkentucky Transportation (TTIS)** – Transkentucky Transportation (TTIS) is a Class III short line railroad which owns and operates 50 route miles between Paris and Maysville, Kentucky. TTIS interchanges with CSX at Paris.
- **West Tennessee Railroad (WTNN)** – The West Tennessee Railroad (WTNN) is a Class III short line railroad that operates between Corinth, Mississippi and Fulton, Kentucky. The WTNN owns and operates only one mile of track within Kentucky, reaching Fulton. The WTNN interchanges with CN at Fulton.

Non-Operating Rail Owners

- **Louisville Riverport (LORJ)** – The Louisville Riverport Authority owns 13 miles of track in and around the Louisville Riverport complex. Freight switching operations on the property are performed by CSX, NS, and PAL. One locomotive is operated by a tenant on the line, the Port of Louisville.

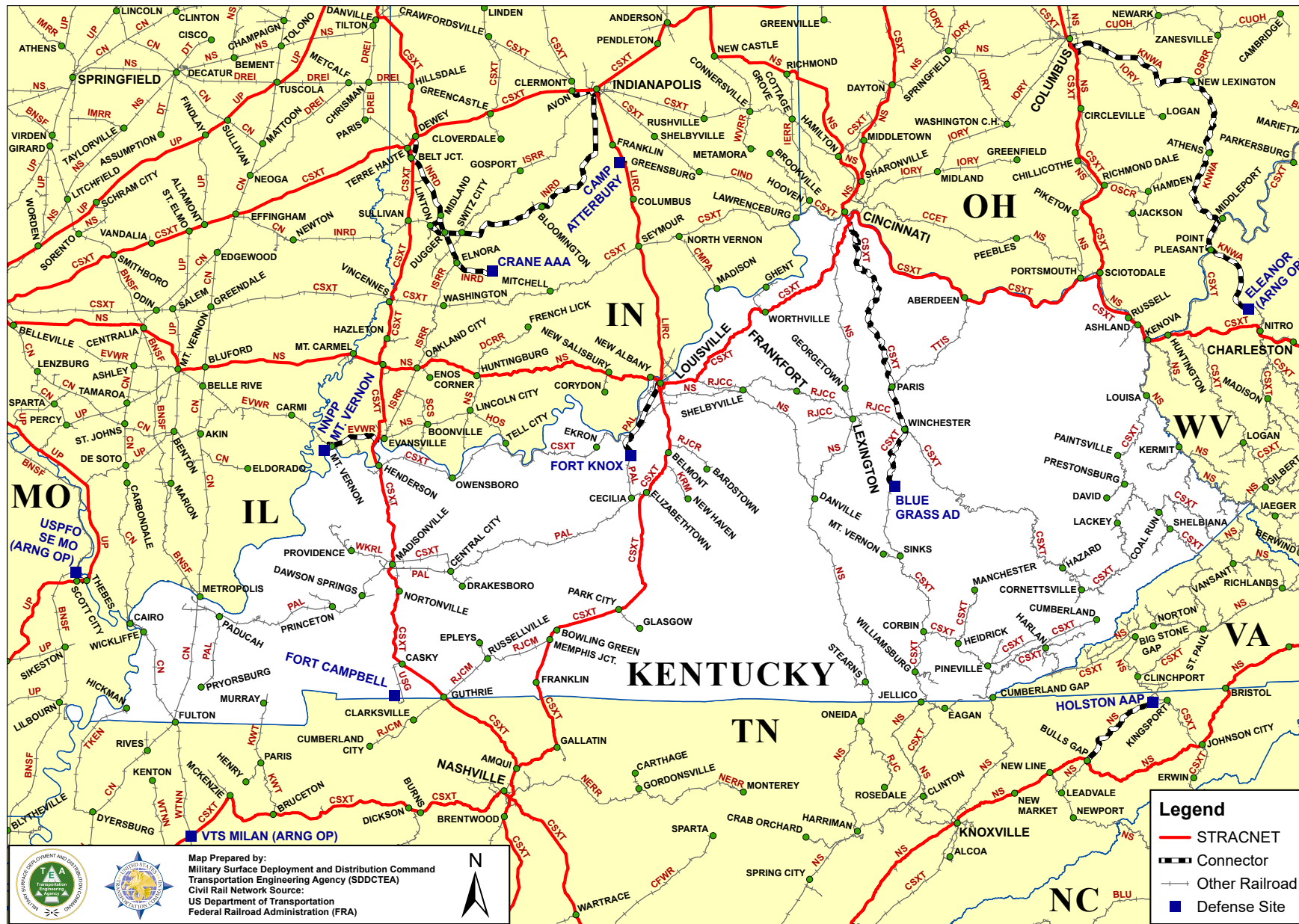
Strategic Rail Corridor Network (STRACNET)

The United States Department of Defense (DoD) has designated the Strategic Rail Corridor Network (STRACNET), a network of 41,300 miles of rail corridors that are considered important to national defense. The STRACNET was developed through analysis of mobilization needs, deployment needs, and peacetime traffic. The FRA has designated a rail main line to satisfy each STRACNET corridor. Also designated are connector rail lines to provide links between the STRACNET and military installations or activities that require rail service.

STRACNET lines are required to be maintained to at least FRA Track Class 2 Standards, with a minimum speed of 25 mph for freight. The low-density lines connecting STRACNET routes to military installations are to be maintained to at least FRA Track Class 1 Standards with a minimum speed of 10 mph for freight. STRACNET lines must be able to accommodate railcars that are 12 feet wide and 16.92 feet tall.

STRACNET main lines pass through Kentucky, and connectors provide rail access to Fort Knox, Fort Campbell, and the Blue Grass Army Depot. **Figure 2-2** shows the state's STRACNET lines and military installations in Kentucky.

Figure 2-2. STRACNET Rail Lines in Kentucky



Source: Military Surface Deployment and Distribution Command Transportation Engineering Agency (SDDCTEA), 2024

PASSENGER RAIL NETWORK

Passenger rail service in Kentucky consists of intercity passenger rail service provided by Amtrak and recreational excursion trains provided by four different tourist/excursion train operators.

Amtrak passenger trains serve four cities in Kentucky via two long-distance train routes. (Long-distance trains are Amtrak passenger trains that operate on routes of more than 750 miles in length.) Amtrak's long-distance Cardinal operates three days per week in each direction between Chicago, Illinois, and New York, New York, via Cincinnati, Ohio, and stops in the Kentucky cities of Ashland, South Shore-South Portsmouth, and Maysville. Northern Kentucky urban areas are served by the Cardinal's stop at the Cincinnati Union Terminal, directly across the Ohio River. The long-distance City of New Orleans operates daily between Chicago, Illinois, and New Orleans, Louisiana, and stops in the city of Fulton, Kentucky. In addition, Amtrak Thruway motorcoach service (provided by Greyhound) is provided at Louisville, Kentucky, on a route connecting Nashville, Louisville, and Indianapolis to Chicago. **Figure 2-3** shows the two Amtrak long-distance train routes, five Amtrak passenger rail stations, and four tourist railroads in Kentucky.

The passenger rail infrastructure in Kentucky is mapped in [Interactive Application 2-3](#) and [Interactive Application 2-4](#).

Figure 2-3. Passenger Rail Lines in Kentucky

KENTUCKY PASSENGER RAIL LINES



Source: Kentucky Transportation Cabinet, 2024

Historical Intercity Passenger Rail Operations

By the end of the 19th century, railroads had established themselves as the predominant mode for transporting people and freight by land. However, with the improvement of roadways and the affordability of automobiles, starting in the 1920s, passenger rail ridership in Kentucky and across the country began to decline. Following World War II, national transportation policy emphasized the development of federally funded air and highway systems, which provided public access to transportation infrastructure and which could be used by both individuals and private transportation providers. With a broader range of transportation options available, ridership on passenger trains declined even further. In 1967, the U.S. Postal Service discontinued many of its mail haulage contracts with railroads, opting to use air and truck transportation instead. The loss of the mail haulage contracts, which had contributed needed revenue to passenger trains, resulted in the discontinuance of numerous passenger services that year.

Despite the emergence of alternative, government-funded passenger transportation systems and the resulting loss of passenger train revenue, railroad companies often were required to maintain passenger rail services and routes, regardless of their financial performance. Under regulations imposed by the Interstate Commerce Commission (ICC), railroads that intended to terminate a passenger service had to go through a petition process. The ICC would then investigate whether or not the service was still required for the public convenience and necessity, and then issue a ruling. Throughout the 1960s, railroads worked through the petition process to end passenger trains.

Ultimately, Congress acted to shift the obligation for providing intercity passenger services from the private railroads to the National Railroad Passenger Corporation, now known as Amtrak, under the Rail Passenger Service Act of 1970. The act was signed into law by President Richard Nixon, and Amtrak began service on May 1, 1971, with 185 trains serving 314 destinations.

Amtrak Operations

Amtrak provides intercity passenger rail services connecting more than 500 communities in 46 states, the District of Columbia, and three Canadian provinces. In addition to its intercity services, Amtrak also provides contract commuter rail service for state and regional authorities. In 1971, Amtrak's nationwide monthly ridership was over 1.2 million passengers, or over 14.8 million passengers annually. In Fiscal Year (FY 2023), with intercity travel still rebounding from the COVID-19 pandemic, Amtrak's monthly ridership had grown to more than 2.3 million passengers, on average, and more than 28.5 million passengers annually. By comparison, the Kentucky total of 8,774 Amtrak passengers in FY 2023 represented 0.03 percent of Amtrak's total ridership that year.

The two Amtrak trains that operate in Kentucky are long-distance trains with routes exceeding 750 miles. Long-distance trains are funded predominantly by Amtrak through annual grants provided by



Source: Kentucky Transportation Cabinet

Congress and administered by the Federal Railroad Administration. Congress also provides funding to Amtrak for operations and maintenance along the Northeast Corridor. This is an electrified, multiple-track rail line between Washington, D.C. and Boston, Massachusetts, with connecting branch lines, that is primarily owned by Amtrak. In accordance with the Passenger Rail Investment Act of 2008 (PRIIA), states are responsible for funding the operation of Amtrak trains on routes of 750 miles or less. There are no state-supported Amtrak passenger services in Kentucky.

Ninety-seven percent of the route-miles traveled by Amtrak trains are on tracks owned by other entities, such as freight railroads, commuter railroads, or public agencies, which are collectively referred to as hosts.² In most cases, hosts operate, dispatch, and maintain the tracks that Amtrak trains use, and Amtrak pays the hosts for the incremental costs incurred by Amtrak's use of the tracks and other associated resources or services.

Amtrak Trains Serving Kentucky

- Cardinal** – Amtrak's long-distance Cardinal train operates three days per week in each direction between Chicago and New York City over a route approximately 1,147 miles long, of which approximately 151 miles are in Kentucky. The principal intermediate cities served by the Cardinal are Indianapolis, Indiana, Cincinnati, Ohio, Charleston, West Virginia, White Sulphur Springs, West Virginia, Charlottesville, Virginia, and Washington, D.C. The Cardinal takes its name from the state bird of six states (including Kentucky) that are served by the train. In Kentucky, the Cardinal follows the south bank of the Ohio River and makes three station stops, in the cities of Maysville, South Shore-South Portsmouth, and Ashland. The Cardinal uses tracks that are owned and operated by CSXT while traveling in Kentucky. Under the current schedule (in effect in early 2024), the train has a scheduled end-to-end trip time of 28 hours, 15 minutes westbound and 27 hours, 28 minutes eastbound. The westbound Cardinal, Amtrak train No. 51, departs New York City in the early morning on Sunday, Wednesday, and Friday, operates through Kentucky during the late evening hours on Sunday, Wednesday, and Friday, and the No. 51 arrives in Chicago at mid-morning the following day. The eastbound Cardinal, Amtrak train No. 50, departs Chicago in the early evening and makes overnight stops in Indianapolis and Cincinnati prior to operating through Kentucky during the early morning hours on Sunday, Wednesday, and Friday. After spending the rest of the day traveling eastward,



Source: Kentucky Transportation Cabinet

2. <https://www.amtrak.com/content/dam/projects/dotcom/english/public/documents/corporate/reports/Amtrak-General-Legislative-Annual-Report-FY2025-Grant-Request.pdf>

the Cardinal arrives in New York in the late evening on Sunday, Wednesday, and Friday. The Cardinal operates with single-level coaches, a café car, a sleeping car, and a baggage car.

- **City of New Orleans** – The City of New Orleans train operates daily in each direction, making an overnight trip between Chicago and New Orleans over a route approximately 934 miles long, of which approximately 41 miles are in Kentucky. The principal cities served by the City of New Orleans are Champaign-Urbana, Illinois, Carbondale, Illinois, Memphis, Tennessee, Jackson, Mississippi, and Hammond, Louisiana. The train's name was made famous in a hit song written and first recorded in the early 1970s. The train serves one station in Kentucky, in the city of Fulton, stopping both ways in the middle of the night. The City of New Orleans uses tracks that are owned and operated by Canadian National Railway for nearly its entire route. Under the current schedule (in effect in early 2024), the train has a scheduled end-to-end trip time of 19 hours, 42 minutes southbound and 19 hours, 30 minutes northbound. The southbound City of New Orleans, Amtrak train No. 59, departs Chicago in the evening and arrives at New Orleans in the afternoon on the following day. The northbound City of New Orleans, Amtrak train No. 58, departs New Orleans at midday and arrives in Chicago the next morning. The City of New Orleans operates with double-deck Superliner equipment that includes coaches, a diner-lounge car, and sleeping cars.
- **Kentucky Cardinal** – Between 1999 and 2003, Amtrak also operated the Kentucky Cardinal, which ran daily between Louisville and Chicago, on an overnight trip by way of Jeffersonville and Indianapolis, Indiana. (When service first began in December 1999, the train ran only from Jeffersonville to Chicago. In December 2001, the train was extended to Louisville's Union Station, its intended southern terminus.) The Kentucky Cardinal was combined with the Cardinal between Indianapolis and Chicago on the three days per week that the Cardinal operated and ran as a standalone Louisville-Chicago train on the other days. The service was ultimately discontinued in July 2003, owing to delays crossing the Ohio River, low track speeds, and low revenue and ridership, caused in part by a downgrade in service after the removal of the overnight train's sleeping car. Riders in Louisville may now take a connecting Amtrak Thruway bus to Indianapolis to meet the Cardinal.

Amtrak Thruway Bus Services

Amtrak Thruway motorcoach services, operated by Greyhound and other private motorcoach carriers, provide bus connections from Amtrak stations to other communities not currently served by Amtrak trains. Guaranteed connections to an Amtrak train, through-fares, and common ticketing are provided in most cases. In Kentucky, Amtrak provides a Thruway bus connection at Louisville, on a bus route between Nashville and Chicago, with additional intermediate stops at Indianapolis, and Lafayette. Buses operate twice per day in each direction, stopping at the Louisville Greyhound Station on West Broadway, with one bus providing daytime service along the route and a second bus making an overnight trip.

Recreational Railroads and Excursion Trains

Four recreational/excursion trains operate in Kentucky, as described below.

- **Big South Fork Scenic Railway** – Located in Stearns, Kentucky, the Big South Fork Scenic Railway is an excursion railroad that operates on seven miles of Kentucky & Tennessee Railway trackage, taking passengers on a 14-mile round-trip tour that passes through the Daniel Boone

National Forest and the Big South Fork National River and Recreation Area. The rail line is owned by the McCreary County Heritage Foundation in McCreary County. Excursion trains make nonstop trips lasting 45 minutes in each direction that include a narrated history of the area. (Trains no longer stop at the Barthell Coal Camp.) Trains operate from April through December.³ The railroad also operates seasonal special event trains, such as the Polar Express train ride. The first mile of the train's route uses Kentucky & Tennessee Railway yard track to connect the station at Stearns to the Heritage Foundation mainline track.



Source: Kentucky Transportation Cabinet

- **Bluegrass Scenic Railroad and Museum** – Located near downtown Versailles, the Bluegrass Scenic Railroad and Museum offers an 11-mile round-trip ride through the Bluegrass Region of Kentucky, from Versailles to the Kentucky River, along the only railroad line in Kentucky not used to transport freight. The museum owns and maintains a 5.5-mile rail line, which was the former main line of the Louisville Southern Railroad (a Norfolk Southern predecessor) connecting Louisville and Lexington. The line passes horse farms, then descends through deep limestone cuts to the palisades of the Kentucky River, where travelers may disembark to photograph the famed Young's High Bridge, built in 1889 to span the river at Tyrone, and see the Wild Turkey Distillery on the opposite bank. In addition to train rides, the museum exhibits include a display car. Regularly scheduled trains operate 90-minute round-trip excursions on weekends from May through October.⁴ The railroad also hosts special events, including Easter Bunny trains, pumpkin patch trains, and Santa Claus trains. Through a partnership with Rail Explorers, visitors can also participate in seasonal scheduled rail bike tours of the line.
- **Kentucky Railway Museum** – Located in New Haven, Kentucky, the Kentucky Railway Museum owns 17 miles of track that had been part of the Lebanon Branch, one of the oldest and most historic segments of the former Louisville & Nashville Railroad (a CSX predecessor). The line follows the Rolling Fork River Valley through Nelson and LaRue Counties, and passes the home of the Log Still Distillery campus. Two types of regular excursions are offered, a 22-mile, 90-minute round trip from New Haven to Boston, and a 45-minute round trip from New Haven to Gethsemane. The railroad also offers special event trains, a Day Out with Thomas, train robberies, pumpkin patch expresses, Santa Trains, wine and cheese trains, and more. The museum in New Haven has more than 100 pieces of rolling stock (cars, locomotives, and other railroad equipment), as well as train memorabilia, artifacts, and a gift shop. Train rides are

3. Big South Fork Scenic Railway, <https://bsfsry.com/>. Accessed March 2024.

4. Bluegrass Scenic Railroad and Museum, <https://www.bluegrassrailroad.com/>. Accessed March 2024.

offered from April through mid-December, but the museum is open year-round.⁵

- **My Old Kentucky Dinner Train** – Located in Bardstown, Kentucky, My Old Kentucky Dinner Train operates on the R.J. Corman Railroad Group's Bardstown Line in Nelson County, offering lunch and dinner excursions aboard restored 1940s dining cars, featuring gourmet meals and scenic views of the Kentucky countryside. The line was originally constructed by the Bardstown and Louisville Railroad in 1860, then was acquired by the Louisville & Nashville Railroad in 1864. R.J. Corman purchased the 20-mile branch line from CSXT in 1987 and established the dinner train in 1988. Dinner trains make a 32-mile round trip, originating at the historic Bardstown depot built in 1860, then traveling through Bernheim Forest and the Jim Beam property to Limestone Springs, and then returning to Bardstown. Lunch train excursions last 2 hours and dinner train excursions last 2.5 hours. My Old Kentucky Dinner Train regularly schedules excursions on Fridays and Saturdays. Schedules change seasonally, and some special excursions are offered on other days.⁶ In addition to lunch and dinner excursions, murder mystery trains, bourbon excursions, special event trains, and special children's excursions are also operated.

RAILROAD ABANDONMENTS AND RAILBANKED LINES

This section identifies the recent abandonment filed through the STB, and known railbanked line segments and major rail trails.

Abandoned railroad corridors and rails-to-trails corridors in Kentucky are mapped in [Interactive Application 2-5](#).

An abandoned rail line is a railroad right of way corridor on which rail service has been discontinued and the STB has approved the abandonment. If an abandoned rail corridor is not preserved, the property may revert to adjacent landowners or may be sold and used for other purposes, rendering the corridor no longer intact. Loss of the linear integrity of the rail corridor may render the corridor unsuitable for any potential future reinstatement of rail operations. Railbanking is a method of preserving rail right of way for interim trail use while giving the railroad the option to potentially reinstall the tracks and reactivate service at a later date. Once the abandonment or railbanking process is complete and track materials are removed, a trail can be created along the corridor.

As of 2025, Kentucky has more than 2,400 miles of active main line track, down from over 4,000 miles at its peak in the 1930s, resulting in more than 1,000 miles of abandoned railroad beds in the state.⁷ In some cases, the lines supported industries that no longer exist. In other cases, the condition of the lines deteriorated to such an extent that restoration was considered uneconomical by rail line owners. State regulations regarding the abandonment process in Kentucky are covered in KRS 277.400 and KRS 277.402. More information on alternatives to abandonment is available on the Rails-to-Trails Conservancy's website – typically, railbanked corridors are converted to multi-use trails or pathways for non-motorized users.⁸

5. Kentucky Railway Museum, <https://www.kyrail.org/>. Accessed March 2024.

6. My Old Kentucky Dinner Train, <https://www.kydinnertrain.com>. Accessed March 2024.

7. Kentucky's Abandoned Railroad Corridor Inventory Project

8. <https://www.railstotrails.org/>

Railroad Abandonments

In order to officially abandon a rail line, railroads must either go through the STB abandonment procedure or be granted an exemption from it. An exemption may be granted when the railroad can demonstrate that the line has been out of service for two years, any overhead freight traffic on the line has been or can be rerouted and no complaints over service are pending. An exemption can also be granted for rail lines with so little traffic on the line that the railroad cannot make a profit on it. If a railroad is granted an exemption, the requirement of public notification of intent to abandon is removed. Procedures are available for parties who wish to challenge the STB exemption.

Corridors that have been abandoned through the STB process within the last decade include the following:

- **CSX Merna Spur (Abandonment)** – On July 18, 2017, CSX filed a Petition for Exemption with the STB to abandon common carrier service on an approximately 1.6-mile rail line on its Northern Region, Huntington Division, CY Subdivision, Engineering Appalachian Division, also known as the Merna Spur. This section is between milepost OMV 250.1, at the end of the line, and milepost OMV 248.5 at the wye connecting to the CSXT Glidden Siding in Harlan County, Kentucky.⁹ The spur is now privately owned by the shipper that it serves and the track remains in place.

Railbanked Corridors and Rails-to-Trails

Recreational trails along former railroad rights-of-way in Kentucky include the following:

- **Benham Trail (Harlan County)** – The Benham Trail, also known as the Benham Walking Trail and Coal Miners Walking Trail is located in Harlan County, with approximately 2.5 miles of crushed stone trail allowing walking, horseback riding, and biking on an abandoned CSX line.
- **Bernheim Bike Hike Trail (Bullitt County)** – The Bernheim Hike Bike Trail is a rail-with-trail that runs along Lick Creek and generally parallels KY 245. It is a 3.2-mile trail allowing biking and walking with endpoints at the Bernheim Forest and KY 1604 at Lotus. The surface of this trail is crushed stone.
- **Big Four Bridge, (Louisville, Jefferson County)** – The Louisville Big Four Bridge is a former Penn Central railroad truss bridge that crosses the Ohio River, connecting Louisville with



Source: Margaret Burlingham / Adobe Stock

9. U.S. Surface Transportation Board, Docket No. AB-55 (Sub-No. 773X) CSX TRANSPORTATION, INC. -ABANDONMENT EXEMPTION-IN HARLAN COUNTY, KY. Retrieved from: <https://dcms-external.s3.amazonaws.com/MPD/17248/B1258536A631830A85258161006BD7B9/243963.pdf>

Jeffersonville, Indiana. It has been converted to a multi-use path, allowing only bicyclists and pedestrians. The bridge is 0.5 mile in length.

- **Blue Heron Trail (McCreary County)** – This rail trail is part of the Blue Heron Loop trail in the Big South Fork National River and Recreation Area. The Blue Heron Loop is a 6.5-mile hiking trail with about two miles of rail trail on former Big South Fork Railroad railbed. The trail surface type is unknown.
- **Brighton East Rail Trail (Fayette County)** – The Brighton East Rail Trail, located on the east side of Fayette County, is 1.8 miles long. It begins at the intersection of Man O' War Boulevard and Bryant Road and ends at Walnut Grove Lane. It is a 12-foot-wide asphalt/concrete trail intended for non-motorized traffic on former CSX railbed. It was partially funded by the KYTC via FHWA Transportation Enhancement Funds.
- **Cadiz Railroad Trail (Trigg County)** – The Cadiz Railroad Trail, located in downtown Cadiz, is 1.5 miles long. The surface is asphalt, and it is used for hiking, jogging, bicycling, rollerblading, and skateboarding. This rail trail is the site of the former Cadiz Railroad that connected with the Illinois Central and Louisville & Nashville Railroads. The rail trail was dedicated in 1989, making it the first rail trail in Kentucky.
- **Carter County Rail Trail (Carter County)** – The Carter County Rail Trail consists of 0.5 mile of rail trail located in Olive Hill on the site of the former Eastern Kentucky Railroad allowing walking and biking. The city of Olive Hill was selected and approved for Recreation Transportation Program funding in 2012 to provide maintenance of the existing trail and acquire 0.75 miles of additional rail trail.
- **Cathy Crockett Memorial Trail (McCreary and Pulaski Counties)** – The Cathy Crockett Memorial Trail begins in Sloans Valley and ends in McCreary County. The trail is currently about 1.5 miles long with a gravel surface. Most of this trail is on remnants of the old Cincinnati-Southern rail bed and is used for walking, running, and bicycling.
- **Clarks River National Wildlife Refuge Rail Trail (Marshall County)** – This crushed stone rail trail is located in the city of Benton and runs along 1.5 miles of the Clarks River used for walking on the site of the former Western Kentucky Railway.
- **Clear Creek Trail (Bell County)** – The Clear Creek Trail traverses through the campus of Clear Creek Baptist Bible College, in the Kentucky Ridge State Forest, adjacent to the Pine Mountain State Resort Park. There are approximately 1.6 miles of existing crushed stone trail along what was formerly a spur from the Louisville & Nashville Railroad. It is commonly used by hikers, runners, mountain bikers, and fishermen.
- **Dawkins Line Rail Trail (Breathitt, Johnson, and Magoffin Counties)** – The Dawkins Line Rail Trail is a 36-mile asphalt and crushed stone rail trail stretching from Hager Hill in Johnson County to Evanston in Breathitt County. The entire trail is now opened to hikers, cyclists, and horseback riders. The rail trail follows the old Dawkins Line railroad bed, most recently owned by the R.J. Corman Railroad Group before the company abandoned it in 2004. The Dawkins Line Rail Trail is the largest rail-to-trail in the state and is open year-round.
- **Fredonia Trail (Caldwell County)** – The Fredonia Trail is a 0.2-mile paved rail trail located in Caldwell County. This trail is open to walking and is on the former Fredonia Valley Railroad line.
- **Highway 109 Rail Trail (Webster County)** – This rail trail is crush-stone and 0.5 miles in length

and lies within the City of Wheatcroft. This trail is open to walking and biking and is on a former CSXT line.

- **Hopkinsville Rail Trail (Christian County)** – On September 27, 2014, 3.15 miles of this proposed 15-mile trail using the abandoned Fort Campbell rail spur owned by the US Army was opened for public use. Approximately 4.75 miles are currently open. It runs from the Hopkinsville Riverwalk trailhead at North Street southward to Pardue Lane. This trail is paved with concrete pavement and used for biking, walking, and skating.
- **Industrial Park Rail Trail (Madison County)** – The Industrial Park Rail Trail is a 0.6-mile paved rail trail in Madison County. This trail is on former CSXR railbed and is open to walking. It is also referred to as the Duncannon Walking Trail by the City of Richmond.
- **Lafayette Lochdale Rail Trail (Fayette County)** – The Lafayette Lochdale Rail Trail, located on the south side of Fayette County, is paved and approximately 0.75-miles long. This rail is on former Norfolk Southern railbed and open to biking and walking.
- **Louisville Riverwalk (Jefferson County)** – The Louisville Riverwalk is located in Louisville, predominantly along the Ohio River. This trail is now part of a larger trail, known as the Louisville Loop. The Louisville Loop is an approximately 100-mile trail that is planned to eventually encircle Louisville. The rail trail portion of the plan is 0.5-miles long, adjacent to downtown Louisville along the Ohio River between 16th Street and 22nd Street. The surface is paved asphalt and concrete and is constructed adjacent to Norfolk Southern rail.
- **Mammoth Cave Hike and Bike Trail (Barren and Edmonson Counties)** – The Mammoth Cave Trail is eight miles long and paved with crushed stone used for walking and biking. A five-mile segment of the trail extends from Park City to Mammoth Cave National Park, and three miles of the trail follow an old rail corridor of the Mammoth Cave Railroad.
- **Marion Crittenden County Park Trail** – This paved trail in the city of Marion is approximately 0.4 mile long and is part of a larger loop trail around the inside of the Marion Crittenden County Park. The trail is used for walking and biking. It is located along a section of rail bed that was operated by the Western Kentucky Railway.
- **Muhlenberg County Rails to Trails (Muhlenberg County)** – This rail trail is located on right of way previously owned by PAL, with the end points in Central City and Greenville. The asphalt paved rail trail is approximately six miles long and is used for biking, walking, and skating.
- **Prestonsburg Passage Rail Trail (Floyd County)** – Occupying a former CSX railroad bed, this paved 8.6-mile-long rail trail meanders between Prestonsburg and the town of David. This rail trail also boasts six restored bridges with one of them featuring the roof and sides of a retired school bus serving as a bridge cover.



Source: Kentucky Transportation Cabinet

- **Purple People Bridge (Campbell County)** – The Purple People Bridge is a 0.3-mile-long bridge across the Ohio River and connects the proposed Ohio River Trail in Cincinnati with the proposed River Path in Kentucky. The bridge is open to pedestrians and bicyclists. On the Cincinnati side, a rail trail connects the Great American Ball Park with the Theodore Berry International Friendship Park and a bike path. The rail bridge was most recently owned by CSX.
- **Riney B Park Trail (Jessamine County)** – This is a one-mile paved and crushed stone rail trail located in Jessamine County is utilized for walking and biking. The trail is located along rail formerly owned by Louisville & Nashville Railroad.
- **Rucker Park Rail Trail (Johnson County)** – This approximately 0.2-mile unpaved rail trail in Johnson County is owned by the Van Lear Historical Society and is a former Chesapeake and Ohio corridor. The trail is used for walking and biking.
- **Sheltowee Trace (McCreary, Lee, and Jackson Counties)** – The Sheltowee Trace is a 307-mile national recreation trail that runs through the Daniel Boone National Forest, Big South Fork National Recreation Area, Natural Bridge, Cumberland Falls, and Pickett State Parks in Kentucky and Tennessee. Currently, 3.6 miles of the trail located in McCreary County, near Whitley City, is a rail trail along Railroad Fork and Barren Fork. The right of way was part of the Barren Fork Coal Camp. It is in Section 30 of Sheltowee Trace and horses are permitted. Another 9.6 miles of rail trail are located in Lee and Jackson counties.
- **South Elkhorn Trail (Lexington, Fayette County)** – This is a 0.4-mile asphalt rail trail that extends from Man O' War Boulevard to Waveland State Historic Site, south of Shillito Park, near the Norfolk Southern railroad tracks on a former Norfolk Southern spur. The trail is utilized for biking, walking, and skating.
- **Stanford Depot and Rail Trail (Lincoln County)** – This is a 0.3-mile asphalt rail trail that extends two city blocks in downtown Stanford. It includes the historic restored Louisville & Nashville Depot. The trail is used for biking, walking, and skating.
- **Sturgis Trail (Union County)** – This paved rail trail is located in southern Union County in the community of Sturgis and is approximately 0.5 mile in length on the former Western Kentucky Railroad. The trail is used for walking and hiking.
- **Town Branch Trail (Fayette County)** – The Town Branch Trail, located on the west side of Fayette County, extends 1.8 miles from Masterson Station to Alexandria Drive. Another section of this trail was completed in 2022 along Manchester St (KY-1681) with an approximate length of 1.2 miles. The trail is asphalt paved and used for biking, walking, and skating.
- **Tradewater (Blackford Bridge) Rail Trail (Webster and Crittenden Counties)** – This rail trail is approximately 0.5 mile in length and utilizes an abandoned Kentucky Western Railroad bridge across the Tradewater River in Blackford, providing pedestrian access for both sides. The Tradewater River separates Crittenden and Webster counties in western Kentucky. This trail is now known as the Veterans Walk of Honor. The project was funded through the KYTC via the FHWA Transportation Enhancements Program.
- **Uniontown Trail (Union County)** – The Uniontown Rail Corridor Trail is an existing 0.35-mile-long asphalt trail that lies in northern Union County in western Kentucky. It is used for walking, jogging, rollerblading, skateboarding, in-line scooters, and bicycling. This trail, located on the former Western Kentucky Railroad, was funded through the KYTC Recreational Trails Program and the KYTC via the FHWA Transportation Enhancements Program.

- **White Plains Trail (Hopkins County)** – This 1.5-mile paved trail is located in White Plains on the former Paducah and Louisville Railway, which lies in southeastern Hopkins County. The trail is used for biking, walking, and skating.
- **Whitesburg Railroad Trail (Letcher County)** – A one-mile asphalt paved rail trail located within the west side of Whitesburg. This trail is located on the former Louisville & Nashville Railroad.
- **Whittleton Branch Trail (Powell County)** – This rail trail is a 1.8-mile asphalt paved section of the Whittleton Branch Trail that begins at the Natural Bridge camping area and extends northward to an intersection with KY 15. This trail is located on the former Lexington & Eastern Railroad and used for walking and biking.
- **Wingo Trail (Graves County)** – The Wingo Trail is located in Graves County in western Kentucky. This rail trail is asphalt paved and 1.3 miles in length and is built on an Illinois Central abandonment. The trail is used for walking and biking.

2.1.2. Major Freight and Passenger Terminals

RAILROAD YARDS AND MAINTENANCE FACILITIES

The major freight railroad yard and maintenance facility infrastructure in Kentucky is mapped in [Interactive Application 2-7](#). A list of these major facilities is included below; however, the list does not contain all notable facilities in Kentucky.

Canadian National Railway

- Fulton

CSX Transportation

- Bowling Green
- Casky
- Corbin
- Decoursey
- Hazard
- Louisville
- Loyal
- Madisonville
- Martin
- Russell
- Shelbyana

Norfolk Southern Railway

- Danville
- Georgetown
- Louisville



Source: Kevyn / Adobe Stock

Paducah and Louisville Railroad

- Louisville
- Paducah

INTERMODAL TERMINALS

CSX Transportation

- Louisville

Norfolk Southern Railway

- Appliance Park (Louisville)
- Georgetown

EXISTING PASSENGER FACILITIES

The passenger rail infrastructure in Kentucky is mapped in [Interactive Application 2-8](#).

Table 2-2 provides a profile of the four intercity passenger rail stations in Kentucky. The station types are a mix of historic structures (the Maysville depot was built in 1918 by the Chesapeake & Ohio Railway), utilitarian shelters, and a brand-new station facility in South Shore, which was completed in 2023. Amtrak worked with the City of South Shore on the \$3.5 million station accessibility improvement project, which included constructing a new platform, heated shelter building, ramp, guardrails, signage, lighting, passenger drop off aisle, and upgrades to the parking lot in accordance with the Americans with Disabilities Act (ADA).¹⁰ The new, 230-foot-long concrete platform features a level surface for wheeled mobility devices, strollers and rolling luggage. A new detectable warning system also runs along the full length of the platform and provides a tactile surface detectable by passengers with vision disabilities. Amtrak also installed additional parking lot lighting at the request of the city. All of the Amtrak stations in Kentucky are unstaffed, and do not have Amtrak ticket agents, checked baggage service, or ticketing kiosks. The closest staffed Amtrak station to Kentucky with a ticket office and checked baggage service is Cincinnati Union Terminal in Ohio. At the Fulton, Maysville, and South Shore stations, a caretaker opens the station waiting rooms in advance of train arrivals and closes up after the train has departed.

10. <https://media.amtrak.com/2023/09/amtrak-upgrades-celebrated-at-south-shore-south-portsmouth-station-in-kentucky/>

Table 2-2. Amtrak Passenger Rail Stations in Kentucky

Station Feature	Station			
	Fulton	Maysville	South Shore-South Portsmouth	Ashland
Station Code	FTN	MAY	SPM	AKY
Address	21 Newton Road, Fulton, KY 42041	West Front Street & Rosemary Clooney Street, Maysville, KY 41056	Main Street & US 23, South Shore, KY 41174	99 15th Street, Ashland, KY 41101
Served By	City of New Orleans	Cardinal	Cardinal	Cardinal
Service Frequency	Daily	Triweekly	Triweekly	Triweekly
Station Location Type	Rural	Rural	Rural	Urban
Ownership	Amtrak (facility), CN (platform and parking lot)	CSXT	Amtrak (facility), CSXT (platform and parking lot)	City of Ashland
Shelter	Station building with waiting room	Station building with waiting room	Station platform with shelter	Station platform with shelter
Waiting Room Hours	2:00 PM to 4:00 AM daily	Sun., Wed., and Fri.: 4:30 AM to 6:00 AM, and 11:00 PM to 12:30 AM the next day	Sun., Wed., and Fri.: 5:00 AM to 8:30 AM, and 9:00 PM to 11:00 PM	Monday to Saturday 8:30 AM to 5:00 PM (Ashland Transportation Center)
ADA	Accessible platform and parking; no wheelchair or wheelchair lift	Accessible platform, waiting room, and parking; wheelchair lift available	Accessible platform, waiting room, and parking; wheelchair lift available	Accessible platform, shelter, and parking; wheelchair lift available
Station Services	Unstaffed station	Unstaffed station	Unstaffed station	Unstaffed station
Ticketing	No	No	No	No
Baggage Services	No	No	No	No
Restrooms	No	Yes	No	Yes (ATC)
Parking	Day and overnight (12 spaces)	Day and overnight (25 spaces?)	Day and overnight	Day and overnight (9 spaces)
Bicycle Rack	No	No	No	No
Intercity Bus Connections	No	No	No	Greyhound
Transit Connections	Fulton County Transit Authority demand response buses will serve the Amtrak station	Maysville City Transit bus	Scioto County Public Transit demand response buses will serve the Amtrak station on weekdays	Ashland Transportation Center (adjacent to Amtrak station) serves Greyhound and the Ashland Bus System

Source: Amtrak and www.greatamericanstations.com

FORMER PASSENGER FACILITIES

The historic Union Station in Louisville, built in 1891, hosted Amtrak's Chicago-Miami Floridian train from 1971 to 1976, after which Amtrak moved its Louisville station to a property near the Louisville airport, adjacent to what is now CSXT's Osborn Yard, in order to operate a Louisville section of the Auto Train from Florida. Amtrak canceled the Floridian in 1979, but Union Station in downtown Louisville still stands. Today, the building is owned by the Transit Authority of River City, the region's bus transit agency, which has restored the grand structure and houses its administrative offices inside.¹¹ Between 2001 and 2003, Amtrak's Kentucky Cardinal served Union Station, using a stub-end track on the west side of the station parking lot.

Amtrak's Floridian also served Bowling Green, Kentucky, stopping at a historic station built by the Louisville & Nashville Railroad in 1925. Service ended in 1979. After having several different owners, the station was purchased by Warren Fiscal Court and the City of Bowling Green, and a restoration effort was begun. Today, the station houses the Historic RailPark & Train Museum, which hosts exhibits, interactive events, and catered events inside the restored station building and also maintains several pieces of historic railroad equipment.¹²

The former Chesapeake & Ohio Railway depot in Catlettsburg, which dates to the turn of the twentieth century and was used by Amtrak from 1971 to 1975, has been restored and now contains the Russell E. Compton Civic Center & Museum.¹³ There are several other historic passenger rail stations remaining across Kentucky, including those in La Grange, Buechel, Paris, Cynthiana, and Frankfort. The Baxter Avenue elevated station remains on the CSXT mainline through Louisville. These stations were served by the Louisville & Nashville Railroad until 1971.

2.1.3. Objectives for Passenger Service in Kentucky

Intercity passenger rail service in Kentucky consists of long-distance trains, which are operated by Amtrak and funded through Congressional appropriations made to Amtrak. The goals and objectives for Amtrak's long-distance services are set primarily by Congress and by Amtrak with Congressional support. The Infrastructure Investment and Jobs Act (IIJA) includes a provision stating that "Amtrak may not discontinue, reduce the frequency of, suspend, or substantially alter the route of rail service on any segment of any long-distance route in any fiscal year in which Amtrak receives adequate Federal funding for such route on the National Network."¹⁴ In a Final Rule published in 2020, the FRA established metrics and minimum standards for measuring the performance and service quality of Amtrak's intercity passenger train operations, in accordance with Section 207 of PRIIA.¹⁵ Section 207 also states that, to the extent practicable, Amtrak and its host rail carriers should incorporate the

11. <https://historiclouisville.com/union-station/>. Accessed March 2024

12. <https://www.historicrailpark.com/>. Accessed March 2024

13. Trowbridge, David J., Savannah Wheeler, and Clio Admin. "Catlettsburg Train Depot." Clio: Your Guide to History. May 28, 2020. <https://theclio.com/entry/96803>. Accessed March 2024.

14. 49 U.S.C. § 24706(b)

15. <https://www.federalregister.gov/documents/2020/11/16/2020-25212/metrics-and-minimum-standards-for-intercity-passenger-rail-service>

metrics and standards into their access and service agreements. Part 273 of the Final Rule established an on-time performance standard for Amtrak intercity passenger trains and routes of 80 percent for any two consecutive calendar quarters, as measured by customer on-time performance, which is the percentage of all customers on an intercity passenger rail train who arrive at their detraining point no later than 15 minutes after their published scheduled arrival time.

2.1.4. Kentucky Passenger Rail Performance Evaluation

This section provides ridership and performance statistics of the Amtrak intercity passenger rail services operating in Kentucky. Except where noted, performance statistics are reported on a route-level basis, since the passenger trains operating in Kentucky serve multiple states.

Table 2-3 illustrates the ridership on the passenger trains serving Kentucky over the past five Amtrak Fiscal Years (October 1 through September 30). The table shows total annual ridership on the route as well as the number of riders on each route that boarded or disembarked trains (ons and offs) at stations in Kentucky.

Table 2-3. Amtrak Ridership on Routes Serving Kentucky, FY 2019-2023

Route	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Cardinal					
Ons and Offs in Kentucky	5,010	3,343	2,982	3,609	4,560
Change in Kentucky Ridership		-33%	-11%	+21%	+26%
Total Ridership	105,364	63,233	69,098	80,322	82,705
Change in Total Ridership	+8.9%	-40.0%	+9.3%	+16.2%	+3.0%
City of New Orleans					
Ons and Offs in Kentucky	3,357	2,199	1,864	2,511	4,214
Change in Kentucky Ridership		-34%	-15%	+35%	+68%
Total Ridership	228,831	132,656	100,816	155,618	233,876
Change in Total Ridership	-4.0%	-42.0%	-24.0%	+54.4%	+50.3%

Source: Amtrak fiscal year ridership reports and annual operations reports

As can be seen in the table above, the COVID-19 pandemic caused significant declines in ridership on Amtrak trains serving Kentucky during FY 2020 and FY 2021. In October 2020, Amtrak reduced the frequency of the City of New Orleans from daily to three days per week in each direction, owing to a decrease in travel demand resulting from the COVID-19 pandemic. With COVID relief funding from Congress, Amtrak was able to restore daily service on the City of New Orleans in May 2021.¹⁶ When the Omicron variant caused a new increase in COVID-19 cases in January 2022, Amtrak reduced

16. Amtrak. Updates to Amtrak Service, January 27, 2021. Retrieved from: <https://media.amtrak.com/2021/01/updates-to-amtrak-service/>

the frequency of the City of New Orleans to five days per week in each direction, which lasted until October 2022 when daily service resumed.¹⁷ During the pandemic, Amtrak continued operating the Cardinal on its regular three-day-per-week schedule, with seating capacity set at two coaches and one sleeping car. (Before COVID, the train had operated at times with three coaches.) In FY 2023, ridership on the City of New Orleans, both overall and in Kentucky, had exceeded its pre-COVID level from 2019. Ridership on the Cardinal remained below 2019 levels, although ridership at Kentucky stations nearly reached the 2019 volume. Amtrak ridership systemwide reached 89 percent of its pre-COVID level in FY 2023.¹⁸

Table 2-4 illustrates the total boardings and alightings at each intercity passenger rail station in Kentucky, as well as the nearby stations of Cincinnati, Ohio, and Indianapolis, Indiana, both of which are served by the Cardinal. The significant decline in station ridership at Indianapolis after 2019 can be attributed to the cancellation of a state-supported train that had operated between Indianapolis and Chicago on the four days of the week that the triweekly Cardinal did not run.

Table 2-4. Amtrak Ridership by Station, FY 2019-2023

Station	Route	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Kentucky Stations						
Fulton	City of New Orleans	3,357	2,199	1,864	2,511	4,214
Maysville	Cardinal	1,993	1,475	1,174	1,527	2,111
South Shore-South Portsmouth	Cardinal	1,052	658	643	732	870
Ashland	Cardinal	1,965	1,210	1,165	1,350	1,579
KENTUCKY TOTAL		8,367	5,542	4,846	6,120	8,774
Regional Stations						
Cincinnati, Ohio	Cardinal	8,641	5,451	7,164	8,374	8,303
Indianapolis, Indiana	Cardinal	24,937	7,373	9,847	10,881	18,466
REGIONAL TOTAL		42,945	18,366	21,857	25,375	35,543

Source: Amtrak state facts sheets

Table 2-5 identifies the population within 25 and 50 miles of a passenger rail station in Kentucky, as well as the percentage of Kentucky's total 2020 population within a 25- and 50-mile proximity to an Amtrak station, based on U.S. Census data. The average distance between Amtrak stations along the Cardinal's route through Kentucky is 40 miles, resulting in some overlap of population at the 50-mile radius. Because all of Kentucky's passenger rail stations are located within at least 50 miles of a state line, the rail stations also attract passengers from the neighboring states of Illinois, Missouri, Ohio, Tennessee, and West Virginia, as shown in **Table 2-6**.

17. <https://www.annistonla.gov/wp-content/uploads/2022/10/MA-NOL-Service-Restoration.pdf>

18. <https://www.amtrak.com/content/dam/projects/dotcom/english/public/documents/corporate/reports/Amtrak-General-Legislative-Annual-Report-FY2025-Grant-Request.pdf>

Table 2-5. Kentucky Population in Proximity of an Amtrak Station

Station	Population Served by Station (KY Residents Only)			
	Within 25 Miles	Percent of Kentucky Population (2020)	Within 50 Miles	Percent of Kentucky Population (2020)
All Amtrak Stations	597,299	13%	1,044,012	23%

Source: Railroad Passengers Association

Table 2-6. Regional Population in Proximity of Amtrak Stations

Station	Population Served by Station (Resident of Any State)	
	Within 25 Miles	Within 50 Miles
Kentucky Stations		
Fulton	93,340	487,212
Maysville	95,219	1,004,605
South Shore–South Portsmouth	186,022	697,597
Ashland	304,429	733,364
Regional Stations		
Cincinnati, Ohio	1,847,737	2,860,305

Source: Railroad Passengers Association

Table 2-7 compares key service, financial, and performance measurements for the Cardinal over the previous five fiscal years. On-time performance and financial recovery both improved in 2023 from the previous year. Customer service has improved from the low point of 2019 but remains below the target scoring threshold. On-board food service consistently ranks as the lowest-scoring service category on



Source: Kentucky Transportation Cabinet

the Cardinal. The most common causes of delay to the Cardinal for the past three years have been freight train interference (FTI) and slow order delays (DSR). Other causes, including passenger train interference (PTI) and commuter train interference (CTI) were common in earlier years. (These causes of delay are route-wide and not isolated to Kentucky.)

Table 2-7. Cardinal Performance Measures

Measurement	Target	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Passenger-Miles		37,535,416	22,554,489	27,625,763	29,637,049	32,195,738
Passenger-Mile per Train-Mile (4th Quarter of FY)		109 (2-year avg.)	86 (2-year avg.)	95	97	98
Revenue-to-Cost Ratio		0.34	0.20	0.26	0.30	0.31
Loss per Passenger-Mile		(\$0.43)	(\$0.99)	(\$0.66)	(\$0.64)	(\$0.61)
Customer On-Time Performance (passenger arrivals no more than 15 minutes late)	80%	52.7%	65.8%	54.1%	48.4%	54.8%
All-Stations On-Time Performance (train arrivals no more than 15 minutes late)	80%	50.0%	66.1%	55.3%	49.5%	53.4%
Endpoint On-Time Performance	80%	52.1%	69.6%	58.5%	55.0%	59.2%
Top Causes of Delay (4th Quarter of FY)		FTI, CTI	PTI, FTI	FTI, DSR	FTI, DSR	FTI, DSR
Customer Satisfaction Index Score (4th Quarter of FY)	82	63	73	73	76	74
Customer Service Failure (4th Quarter of FY)	Score Below 80	Personnel, Information, Comfort, Cleanliness, Food service	Information, Comfort, Food service	Information, Comfort, Cleanliness, Food service	Information, Comfort, Cleanliness, Food service	Information, Comfort, Cleanliness, Food service

Source: Amtrak and FRA

Table 2-8 compares key service, financial, and performance measurements for the City of New Orleans over the previous five fiscal years. In four of the past five years, the City of New Orleans has achieved the highest customer on-time performance among Amtrak's 15 long-distance trains and ranked second best in 2022. In all five years, the City of New Orleans had the highest endpoint on-time performance of any long-distance Amtrak train. The train's financial performance has steadily improved since 2020. Customer service scores have met or exceeded the target in three of the past five years. On-board food service consistently ranks as the lowest-scoring service category on the City of New Orleans. The most common causes of delay to the City of New Orleans are freight train interference (FTI) and slow order delays (DSR), although Amtrak-responsible other issues (OTH) impacted performance in 2020.

Table 2-8. City of New Orleans Performance Measures

Measurement	Target	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Passenger-Miles		86,598,147	53,320,372	40,974,327	63,822,334	96,171,671
Passenger-Mile per Train-Mile (4th Quarter of FY)		141 (2-year avg.)	106 (2-year avg.)	103	143	156
Revenue-to-Cost Ratio		0.44	0.29	0.34	0.36	0.43
Loss per Passenger-Mile		(\$0.26)	(\$0.53)	(\$0.46)	(\$0.39)	(\$0.29)
Customer On-Time Performance (passenger arrivals no more than 15 minutes late)	80%	60.8%	86.7%	85.0%	60.2%	76.2%
All-Stations On-Time Performance (train arrivals no more than 15 minutes late)	80%	54.1%	74.1%	73.8%	54.0%	65.9%
Endpoint On-Time Performance	80%	81.8%	92.8%	94.2%	75.7%	85.6%
Top Causes of Delay (4th Quarter of FY)		FTI, DSR	DSR, OTH	FTI, DSR	FTI, DSR	FTI, DSR
Customer Satisfaction Index Score (4th Quarter of FY)	82	74	82	86	79	82
Customer Service Failure (4th Quarter of FY)	Score Below 80	Information, Comfort, Cleanliness, Food service	Food service	Food service	Information, Food service	Food service

Source: Amtrak and FRA

Table 2-9 identifies Amtrak's expenditures on goods and services in Kentucky, including expenditures on salaries, as well as the number of Amtrak employees residing in Kentucky from FY 2019 through FY 2023.

Table 2-9. Amtrak Expenditures on Goods and Services in Kentucky, FY 2019-2023

Expenditure	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Goods and Services	\$7,952,426	\$6,555,656	\$5,298,419	\$7,643,182	\$8,795,545
Employee Wages	\$187,783	\$190,341	\$190,341	\$284,740	N/A
Amtrak Kentucky Employees	2	2	2	3	4

N/A = not available

Source: Amtrak state facts sheets

2.1.5. Public Financing for Rail Projects

The following section describes grant programs that are available to Kentucky and at the federal level, specifically for rail assistance as of 2025, as well as those programs that might be eligible for rail-related funding in particular applications.

STATE RAIL FUNDING PROGRAMS

- **Kentucky Short Line Railroad Assistance Fund** – In May 2011, the Kentucky Legislature voted to make Highway Construction Contingency Funds available through the Kentucky Short Line Railroad Assistance (KSRA) Fund, administered by the KYTC. Grants totaling \$3,138,726 were awarded under this program for fiscal year 2011-2012. All but one of the grants represented 50 percent of the cost of a project, with each railroad providing the remainder as a match. Kentucky statute continues to permit the KRSA to be funded from the General Fund. However, since the 2011-2012 round, no additional funding has been made available for the KRSA.
- **Kentucky Railroad Crossing Improvement Program** – In October 2013, the state announced that \$3.2 million in grants would be made available through FY 2014 to short line railroads to help fund safety improvements at highway-rail at-grade crossings in Kentucky. The grants, all of which initially required a dollar-for-dollar match from the applicants and currently require a 20% match, were funded through the Kentucky Railroad Crossing Improvement (KRCI) Program, administered by the KYTC. Over the past five years, the KYTC has processed a total 140 project applications:
 - **FY 2024** – 33 Projects
 - **FY 2023** – 22 Projects
 - **FY 2022/2021** – 44 Projects
 - **FY 2019** – 20 Projects
 - **FY 2018** – 18 Projects

In FY 2024, of the 33 applicant projects, 11 projects were selected. This includes six upgrades to the crossing signals and lights and five crossing rehabilitations. Since 2014, the Kentucky Legislature has consistently funded the KRCI in the amount of approximately \$1.6 million annually to allow the KYTC to continue to make additional rail safety improvements statewide. These funds are restricted to public safety improvements to at-grade crossing reconstruction, the removal of obstructive vegetation, and railroad crossing safety equipment improvements. The funding is available to support projects with an 80 percent state share and requires a 20 percent local match.

- **Short Line Infrastructure Preservation Pilot Project** – House Bill 1 (HB1) of the Kentucky 2024 legislative session provides \$15 million over two fiscal years in funding and directs the KYTC to coordinate with and make grants to Class II and Class III railroads to preserve and enhance existing rail lines and corridors, retain existing rail-served industries and attract new industries, and preserve and modernize Kentucky's rail system. Funds from the pilot project shall be used for equipment, construction, reconstruction, improvement, or rehabilitation of rail

facilities or engineering work associated with capital projects. The program requires a minimum 50 percent non-state fund match, and no single project can receive more than \$2 million in grant funds. The funds not expended in 2024-2025 roll over to 2025-2026.

- **Industrial Access and Safety Improvement Pilot Project** – House Bill 1 (HB1) of the Kentucky 2024 legislative session provides \$15 million over two fiscal years in funding and directs the KYTC to coordinate with and make grants to Class I, II, or III railroads, as well as to any Railroad Authority, Port Authority, rail-served industries, and Industrial and Economic Development Authority Board, to expand rail access, enhance the marketability of available industrial sites, increase job creation and capital investment, and increase safety. Funds from the pilot project shall be used for equipment, construction, reconstruction, improvement, or rehabilitation of rail facilities or engineering work associated with capital projects. The program requires a minimum 50 percent non-state fund match, and no single project can receive more than \$2 million in grant funds. The funds not expended in 2024-2025 roll over to 2025-2026.

FEDERAL RAIL FUNDING PROGRAMS

On November 15, 2021, President Biden signed into law the Infrastructure Investment and Jobs Act (IIJA), a comprehensive legislative package establishing more than \$1.2 trillion in US infrastructure investments and establishing significant programs and policies to guide the development of infrastructure improvements.

Pertinent to transportation and rail, the IIJA funds existing discretionary programs administered by the U.S. Department of Transportation (U.S. DOT) at markedly higher levels, and creates authorization for new discretionary programs aimed at delivering improvements to the nation's transportation infrastructure, including highways, freight rail, passenger rail, transit systems, multimodal facilities, and ports.

The IIJA significantly increased the authorizations, and in some instances provided advance appropriations, for existing discretionary programs that fund freight rail projects, both for those programs administered by the Office of Multimodal Freight Infrastructure and by the FRA. For instance, U.S. DOT competitive discretionary grant programs including the Consolidated Rail Infrastructure and Safety Improvements program (CRISI), Infrastructure for Rebuilding America (INFRA) and Better Utilizing Investments to Leverage Development (BUILD) all received substantial funding increases, with at least \$18 billion available over five years just through those programs, at appropriated funding levels. Additional funding is authorized but subject to future appropriations.



Source: Kentucky Transportation Cabinet

Notably, IIJA also established new programs targeting rail improvements, including the Railroad Crossing Elimination Program, to be administered by the FRA. The IIJA authorized and appropriated \$300 million annually, over the five-year authorization, for a total of \$1.5 billion available through Fiscal Year (FY) 2026 to fund highway-rail or pathway-rail grade crossing improvement projects, including rail line relocation, crossing elimination, and installation of advanced signaling, warning devices, and signage.

The IIJA also delivers funding and establishes program requirements designed to support investment in and expansion of the nation's passenger rail network.

Select provisions of the IIJA relevant to the potential establishment of passenger rail in Kentucky include:

- Establishment of a competitive grant program that makes available federal funding to support the establishment of, and pay the select administration expenses of, interstate rail compacts (modeled after the Southern Rail Commission / Gulf Coast Working Group) (Section 22306).
- Establishment of a program to identify, add and improve intercity passenger rail corridors. Sponsors of identified corridors would work with U.S. DOT, states and relevant stakeholders to prepare planning documentation supporting the establishment or improvement of services (Sec. 22308) – see FRA Corridor Identification and Development Program.¹⁹ Two Corridor Identification and Development Program studies involving Kentucky were selected by FRA:
 - Louisville-Indianapolis Passenger Rail Corridor
 - Daily Cardinal Service

FRA Competitive Discretionary Grant Programs

To develop safety improvements and encourage the improvement and expansion of passenger and freight rail infrastructure and services, the FRA supports the nation's rail network through a variety of competitive and dedicated grant programs. These include:

- **Consolidated Rail Infrastructure and Safety Improvements Program (CRISI)²⁰** – The CRISI program provides funding for capital projects that will improve passenger and freight rail transportation systems in terms of safety, efficiency, and/or reliability. The following Kentucky projects have been funded through this program:
 - **FY21** – Bluegrass Multimodal Freight Improvement Program (RJCC)
 - **FY22** – Foster Economic Sustainability Throughout Kentucky Project (PAL)
 - **FY22** – Tennessean Revitalization and Safety Improvement Project (TKEN)

19. Federal Railroad Administration, Corridor Identification and Development Program. Retrieved from: <https://railroads.dot.gov/corridor-ID-program>

20. Federal Railroad Administration, Consolidated Rail Infrastructure and Safety Improvements Grant Program. Retrieved from: <https://railroads.dot.gov/grants-loans/competitive-discretionary-grant-programs/consolidated-rail-infrastructure-and-safety-2>

- **FY22** – Safety, Sustainability, and Alternative Energy Project (LIRC)
- **FY23-24** – Louisville & Indiana Railroad Clagg Bridge Lift Span Operations Project (LIRC)
- **FY23-24** – Kentucky Freight Rail Improvement Program (RJCC)
- **Railroad Crossing Elimination Program (RCE)**²¹ – The Railroad Crossing Elimination Program (RCE) is a new, competitive discretionary grant program established under the IIJA that provides funding for highway-rail or pathway-rail grade crossing improvement projects that focus on improving the safety and mobility of people and goods.
- **Federal-State Partnership for Intercity Passenger Rail (FSP)**²² – The FSP program provides funding for capital projects that reduce the maintenance (state of good repair) backlog, improve performance, and/or expand or establish new intercity passenger rail service.

FRA Financing Programs

The FRA, through the Build America Bureau, offers two loan financing programs to support railroad capital projects:

- **Transportation Infrastructure Finance and Innovation Act (TIFIA)**²³ – The TIFIA program provides credit assistance for qualified projects of regional and national significance. Many large-scale, surface transportation projects -- highway, transit, railroad, intermodal freight, and port access -- are eligible for assistance. Eligible applicants include state and local governments, transit agencies, railroad companies, special authorities, special districts, and private entities. The TIFIA credit program is designed to fill market gaps and leverage substantial private co-investment by providing supplemental and subordinate capital. Each dollar of federal funds can provide up to \$10 in TIFIA credit assistance and support up to \$30 in transportation infrastructure investment.
- **Railroad Rehabilitation & Improvement Financing (RRIF)**²⁴ – Under this program, the FRA Administrator is authorized to provide direct loans and loan guarantees up to \$35.0 billion to finance development of railroad infrastructure. Up to \$7.0 billion is reserved for projects benefiting freight railroads other than Class I carriers. Direct loans can fund up to 100% of a railroad project with repayment periods of up to 35 years and interest rates that are equal to the cost of borrowing to the government. Eligible borrowers include railroads, state and local governments, government-sponsored authorities and corporations, joint ventures that include at least one railroad, and limited option freight shippers who intend to construct a new rail connection.

21. Federal Railroad Administration, Railroad Crossing Elimination Grant Program. Retrieved from: <https://railroads.dot.gov/grants-loans/competitive-discretionary-grant-programs/railroad-crossing-elimination-grant-program>

22. Federal Railroad Administration, Federal State Partnership for Intercity Passenger Rail Grant Program. Retrieved from: <https://railroads.dot.gov/federal-state-partnership-intercity-passenger>

23. Build America Bureau, TIFIA Program Overview. Retrieved from: <https://www.transportation.gov/buildamerica/financing/tifia>

24. Build America Bureau, Railroad Rehabilitation & Improvement Financing (RRIF). Retrieved from: <https://www.transportation.gov/buildamerica/financing/rrif>

Maritime Administration Competitive Discretionary Grant Programs

- **Port Infrastructure Development Program (PIDP)²⁵** – Funds for the PIDP are awarded on a competitive basis by the U.S. DOT Maritime Administration (MARAD) to projects that improve the safety, efficiency, and/or reliability of the movement of goods into, out of, around, or within a port. PIDP grants support efforts by ports and industry stakeholders to improve port, and related freight, infrastructure to meet the nation's freight transportation needs and ensure our port infrastructure can meet anticipated freight volume growth. The PIDP provides funding to ports in both urban and rural areas for planning and capital projects. It also includes a statutory set-aside for small ports to continue to improve and expand their capacity to move freight reliably and efficiently and support local and regional economies. Ports in Kentucky have received several PIDP grants, but none have been rail focused.

U.S. DOT Competitive Discretionary Grant Programs

- **Multimodal Project Discretionary Grant (MPDG)²⁶**
 - **Mega Grant Program²⁷** – The Mega Program (the National Infrastructure Project Assistance program) supports large, complex projects (with total costs greater than \$100 million) that are difficult to fund by other means and likely to generate national or regional economic, mobility, and/or safety benefits.
 - **Infrastructure for Rebuilding America (INFRA)²⁸** – The INFRA Program provides funding for highway and freight projects of national or regional significance. U.S. DOT seeks INFRA applications for projects that apply innovative technology, delivery, or financing methods with proven outcomes to deliver projects in a cost-effective manner. The following Kentucky rail or rail-involved projects have been funded through this program:
 - **INFRA FY18** – Boone County I-71/I-75 Interchanges (Grade Crossing Removal)
 - **INFRA FY22** – Rockport Bridge Rehabilitation Freight Rail Project
 - **Rural Surface Transportation Grant²⁹** – The Rural Surface Transportation Grant Program supports projects that improve and expand the surface transportation infrastructure in rural areas to increase connectivity, improve the safety and reliability of the movement of people and freight, and generate regional economic growth and improve quality of life.

25. U.S. Department of Transportation, Mega Grant Program. Retrieved from: <https://www.maritime.dot.gov/PIDPgrants>

26. U.S. Department of Transportation, Multimodal Project Discretionary Grant. Retrieved from: <https://www.transportation.gov/grants/mpdg-program>

27. U.S. Department of Transportation, Mega Grant Program. Retrieved from: <https://www.transportation.gov/grants/mega-grant-program>

28. U.S. Department of Transportation, INFRA Grant Program. Retrieved from: <https://www.transportation.gov/grants/infra-grant-program>

29. U.S. Department of Transportation, Rural Surface Transportation Grant Program. Retrieved from: <https://www.transportation.gov/grants/rural-surface-transportation-grant-program>

- **Better Utilizing Investments to Leverage Development (BUILD)³⁰** – The BUILD Program invests in road, rail, transit and port projects that promise to achieve national objectives. Previously known as the Rebuilding American Infrastructure with Sustainability and Equity (RAISE) and Transportation Investment Generating Economic Recovery (TIGER) Discretionary Grants, Congress has dedicated nearly \$14.3 billion for 15 rounds of National Infrastructure Investments to fund projects that have a significant local or regional impact. The following Kentucky rail or rail-involved projects have received funding through this program:
 - Tiger I – Appalachian Regional Short-Line Rail Program
 - Tiger 2011 – Muldraugh Bridge Replacement
 - KY331/Industrial Drive and Rinaldo Road (Grade Crossing Upgrade)
 - US 79 Bridge Replacement (Bridge Over Rail)

Federal Highway Administration Formula Funding:

- **Section 130 Railway-Highway Crossings Program (RCP)³¹**
 - The Section 130 Program provides funds for the elimination of hazards at railway-highway crossings. The funds are set-aside from the U.S. DOT Federal Highway Administration (FHWA) Highway Safety Improvement Program (HSIP) apportionment and the funds are apportioned to States by formula.
 - Kentucky Section 130 funds are administered by the KYTC Modal Programs staff. Modal Programs staff prioritize safety upgrades to public rail/highway crossings and the programming of funds for the work done to maintain and upgrade the crossings.



Source: Kentucky Transportation Cabinet

30. U.S. Department of Transportation, Better Utilizing Investments to Leverage Development (BUILD) Grant Program. Retrieved from: <https://www.transportation.gov/BUILDgrants>

31. Federal Highway Administration, Railway Highway Crossing Program Overview. Retrieved from: <https://highways.dot.gov/safety/hsip/xings/railway-highway-crossing-program-overview>

2.1.6. Rail Safety and Security Programs

HIGHWAY-RAIL GRADE CROSSING SAFETY

Highway-rail grade crossing safety is a primary focus of rail safety and security at the local, state, and national level. The term highway-rail grade crossing refers to all intersections of the rail network with non-rail pathways, including streets, highways, shared-use paths, and private driveways or access roads. These intersections create the potential for conflict and possible collisions between trains or other on-track equipment and vehicles or pedestrians.

The KYTC acts as a liaison between communities and local roadway authorities in Kentucky and the FRA. The KYTC also administers the federal Railway-Highway Crossings Program (or Section 130) funding that is made available to each state by the FHWA to implement targeted safety improvements at highway-rail grade crossings and highway-rail grade separations (i.e., separating the railroad from the highway or path using a bridge or tunnel).

An inventory of highway-rail grade crossings involving public roadways and pathways is maintained by the KYTC. Potential projects are identified by reviewing accident/incident history and through requests from local roadway authorities, railroads, and other internal KYTC personnel that have knowledge of safety risks, driver behavior, changes necessary for pedestrian movements, a need for grade separation, or changes in highway or railroad operations. Once projects have been identified, they are prioritized according to the type of project and available funding. Projects selected and programmed for funding are then listed in the Statewide Transportation Improvement Program (STIP).

The KYTC also funds highway-rail grade crossing improvements through the Kentucky Rail Crossing Improvement Program (KRCI) using state funding.

Highway-rail grade crossings in Kentucky are mapped in [Interactive Application 2-9](#).

Operation Lifesaver

The Operation Lifesaver Program is one of the most widely known and effective programs working to make railroads and highways safer. It is a nationwide, non-profit organization dedicated to ending collisions, deaths, and injuries at highway-rail at-grade crossings and along railroad corridors. Operation Lifesaver works to accomplish its task through promoting education, engineering, and enforcement. Their programs are co-sponsored by federal, state and local governmental agencies, highway safety organizations, and individual railroad companies.

Kentucky's Operation Lifesaver Program is funded by federal, state, local, and private partners. The KYTC, the Kentucky Department of Agriculture, the Kentucky Community and Technical College System, and the Kentucky Fire Commission each have a spot on the Kentucky Operation Lifesaver Board of Directors. Kentucky



Source: Kentucky Transportation Cabinet

currently participates in Operation Lifesaver through its School Bus Driver Training, Safety Blitz, and Officers on Trains programs. The target audiences for Operation Lifesaver programs are school groups, driver education classes, professional drivers, law enforcement officers, and emergency responders. The KYTC has provided funding for educational materials and printing services for Kentucky's Operation Lifesaver since 2011.

HOMELAND SECURITY

Rail security is a concern for both passengers and freight. In the wake of the U.S. terrorist attacks of September 11, 2001, and recent train derailments involving hazardous cargo, the discussion of rail security has received more attention at the national and state levels. Rail security is generally a federal responsibility through the Interstate Commerce Clause and related acts.

Within the railroad industry, there is a specific focus on the safe transportation of hazardous materials. The FRA issued Emergency Order No. 28 following the July 6, 2013, catastrophe in Lac-Mégantic, Quebec, a derailment which resulted in an explosion, a massive crude oil spill, and the deaths of 47 people. Emergency Order No. 28 established additional requirements for the monitoring and security of certain freight trains and vehicles on main line track or siding outside of a yard or terminal. The FRA also began working on regulations governing the importance of proper characterization, classification, and selection of a packing group for Class 3 materials, and the corresponding requirements in the federal hazardous materials regulations for safety and security planning. In addition, the FRA emphasized its expectation for shippers and rail carriers to revise safety and security plans required by the federal hazardous materials regulations. This included completion of required risk assessments and addressing safety and security issues identified in the FRA's Emergency Order No. 28 and the Safety Advisory issued jointly with the Pipeline and Hazardous Materials Safety Administration (PHMSA) on August 7, 2013.

Passenger rail security is overseen at the federal level by the Transportation Security Administration (TSA), which routinely provides security and random checks of passengers and luggage on the Amtrak system at various locations and on select transit systems across the United States. These checks can match passengers' identification with issued tickets, checked bags, and other belongings, providing a basic line of security at stations and aboard vehicles.

2.1.7. Economic Impact of Rail Transportation

The economic impact of rail transportation in Kentucky in 2021 was estimated using Regional Input-Output Modeling System (RIMS II) multipliers from the Bureau of Economic Analysis (BEA). The input data and assumptions included freight data, value of commodity shipments, and passenger rail operations. Freight data was estimated using STB Waybill Sample data for shipments, focusing on freight traffic originating in Kentucky. The value of rail commodity shipments originating in Kentucky (in 2021 dollars per ton) were estimated based on freight data from FHWA's Freight Analysis Framework (FAF).

The impacts of Kentucky's rail industry considered in this analysis come from organizations providing freight and passenger transport services, as well as industries using rail freight services to trade goods (i.e., shippers of goods or commodities).

An extensive review was conducted examining how rail operations impacted Kentucky's economy in 2021. The impacts were estimated using:

- Activity (service provision and rail users)
- Type (direct, indirect, induced, and total), and
- Measure (employment, income, and value added)

The results are presented in **Table 2-10**.

Table 2-10. Rail Economic Impacts in Kentucky

Impact Metric	Transportation Services		Transportation Users	Total Service		Total
	Freight	Passenger		Freight	Passenger	
Output (\$M)						
Direct	\$1,173.7 M	\$42.3 M	\$20,264.8 M	\$21,438.5 M	\$42.3 M	\$21,480.8 M
TOTAL	\$2,111.1 M	\$76.1 M	\$35,224.0 M	\$37,335.1 M	\$76.1 M	\$37,411.2 M
Employment (Jobs)						
Direct	2,159	70	49,119	51,279	70	51,349
TOTAL	7,091	248	122,615	129,706	248	129,953
Employment Income (\$M)						
Direct	\$210.6 M	\$7.6 M	\$3,539.8 M	\$3,750.4 M	\$7.6 M	\$3,758.0 M
TOTAL	\$458.1 M	\$16.5 M	\$7,255.7 M	\$7,713.8 M	\$16.5 M	\$7,730.3 M
Value Added (\$M)						
Direct	\$609.3 M	\$22.0 M	\$292.5 M	\$901.8 M	\$22.0 M	\$923.7 M
TOTAL	\$1,073.0 M	\$38.7 M	\$16,157.3 M	\$17,230.3 M	\$38.7 M	\$17,269.0 M

Note: All monetary values presented in the table are in 2021 dollars.

Based on the economic analysis results:

- **Output:** The rail-related industries generated an estimated \$37.4 billion in total output, of which, \$37.3 billion was associated with freight rail operations and services.
- **Employment:** Rail supported over 51,000 jobs directly in the provision of rail transportation (both freight and passenger). Including other trickle-down impacts, rail-related operations supported almost 130,000 jobs.
- **Employment Income:** Rail-related industries supported \$7.7 billion in total earnings for almost 130,000 employees. These earnings include employee compensation and proprietary income. Employee compensation includes wages or salary payments, employee benefits, and employer paid payroll taxes. Proprietary income consists of payments received by self-employment individuals and unincorporated business owners.

- **Value Added:** The combined value-added impact of rail-related activity amounts to nearly \$17.3 billion, which is approximately 7.3 percent of Kentucky's Gross Domestic Product (GDP) in 2021.³²

A full description of the methodology, data sources, and detailed economic impact analysis results can be found in Appendix A.

2.2. TRENDS AND FORECASTS

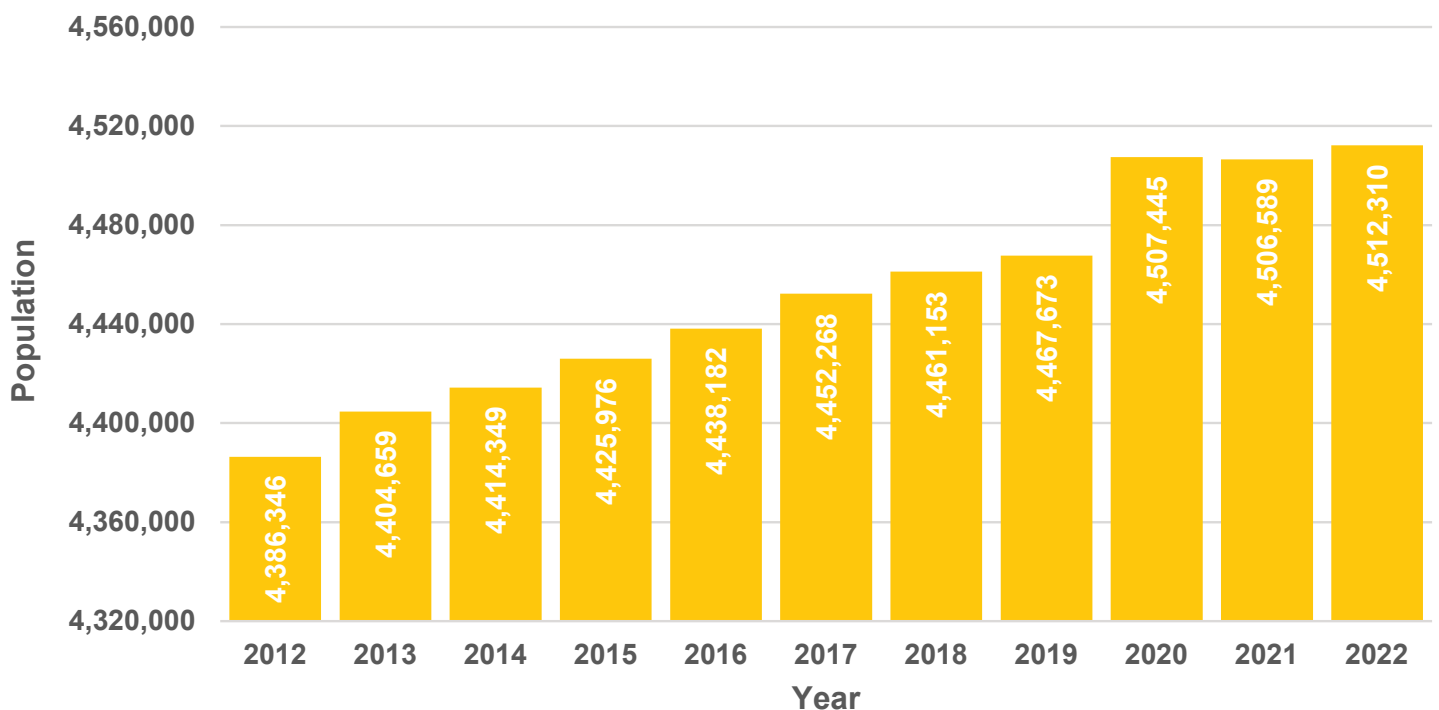
2.2.1. Demographic and Economic Growth Factors

POPULATION

Kentucky has a steadily growing population, which increased approximately 1.1 percent from 2018 to 2022, or an average annual growth of 0.3 percent.

Figure 2-1 shows the cumulative population growth from 2012 through 2022.

Figure 2-4. Population Growth in Kentucky, 2012-2022



Source: U.S. Census Bureau

32. Based on a GDP of \$237,928.9 million for Kentucky in 2021. Data extracted from: U.S. Bureau of Economic Analysis, Gross Domestic Product: All Industry Total in Kentucky [KYNGSP], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/KYNGSP>, March 1, 2024.

EMPLOYMENT

As of 2022, total employment in Kentucky was estimated at 2,658,979 jobs³³, which is a 4.4 percent increase over employment levels in 2018.

Table 2-11 lists the total employment in Kentucky for the years 2018 through 2022.

Table 2-11. Kentucky Employment, 2018-2022

Measure	2018	2019	2020	2021	2022
Employment	2,546,178	2,549,943	2,471,693	2,558,304	2,658,979

Source: Bureau of Economic Analysis

PERSONAL INCOME

As of 2022, the per-capita personal income in Kentucky was \$51,921, with Kentucky ranking 48th out of 50 states in the U.S.³⁴

INDUSTRIAL OUTLOOK BY SECTOR

Automotive

In 2022, Kentucky was ranked 3rd in the U.S. for car and truck production, producing almost 1.1 million vehicles, and over 5.7 million vehicles over the past five years.³⁵ Moreover, in 2022, Kentucky was the 3rd largest exporter of motor vehicles by dollar value, exporting over \$2.9 billion in motor vehicles. Including vehicle parts, total exports values over \$4.5 billion, with products being shipped to over 105 different countries.³⁶

While the state has been known for its strength in the automotive industry, it was further strengthened by additional investments made within the industry. In particular, Kentucky's automotive industry has announced more than \$13.0 billion in investments since 2020 with over \$11.6 billion focused on electric-vehicle-related investments.³⁷ **Figure 2-5** highlights some of these investments, their location within the state and the additional jobs these investments support.



Source: Kentucky Transportation Cabinet

33. Bureau of Economic Analysis, Regional Data – GDP & Personal Income – Kentucky.

34. Ibid.

35. Kentucky Cabinet for Economic Development. Automotive Industry in Kentucky. Retrieved from: https://cedky.com/cdn/11288_CED_Automotive_Guide_061523.pdf. Accessed: November 2023.

36. Ibid.

37. Ibid.

Figure 2-5. Automotive Investments in Kentucky



Source: Kentucky Cabinet for Economic Development. Automotive Industry in Kentucky

Manufacturing

Manufacturing is one of Kentucky's largest industries, accounting for 17.4 percent of the state's total output and employing about 13.2 percent in 2021.³⁸ Based on the value of goods produced in 2021, the top three products manufactured in Kentucky are: 1) food, beverage and tobacco products, 2) motor vehicles and parts, and 3) chemicals, for a combined total of \$18.7 billion in value.³⁹ In total, Kentucky's manufacturing output reached \$41.2 billion in 2021, which was a 9.2 percent increase from 2020.⁴⁰

38. National Association of Manufacturers. 2022 Kentucky Manufacturing Facts. Retried from: <https://nam.org/state-manufacturing-data/2022-kentucky-manufacturing-facts/>. Accessed: November 2023.

39. Ibid.

40. Ibid.

In 2022, the industry supported over 250,000 jobs and exported \$34.4 billion of Kentucky-made goods globally in 2022.⁴¹ Over the past five years, more than \$28 billion was invested in the industry with over 900 facility locations or expansions and supporting almost 39,000 additional jobs.⁴²

Aerospace

Aerospace is one of Kentucky's key industries, with more than 100 aerospace-related facilities employing over 23,000 people and nearly \$10.5 billion in exported goods in 2022.⁴³

Food and Beverage

Supporting over 57,000 jobs, Kentucky's food and beverage industry is another notable sector within the state.⁴⁴ The industry ranges from the production of agricultural goods to the production of food products, beverages, spirits, animal feed and others. Since 2017, Kentucky invested more than \$8.1 billion in the industry, which added over 9,300 additional jobs.⁴⁵

As of 2022, Kentucky ranks 7th in the nation for the number of farms with 73,500 farms operating on a combined 12.9 million acres of land.⁴⁶ **Table 2-12** below presents the key agricultural goods produced in Kentucky.



Source: Jantira / Adobe Stock

Table 2-12. Agricultural Crop Production in Kentucky, 2018-2022 (Bushels)

Crop	2018	2019	2020	2021	2022
Corn	213,500,000	245,050,000	250,240,000	276,480,000	210,600,000
Soybeans	98,430,000	77,740,000	101,200,000	103,040,000	98,940,000
Wheat	19,800,000	25,080,000	21,420,000	30,450,000	30,000,000

Source: USDA National Agricultural Statistics Service

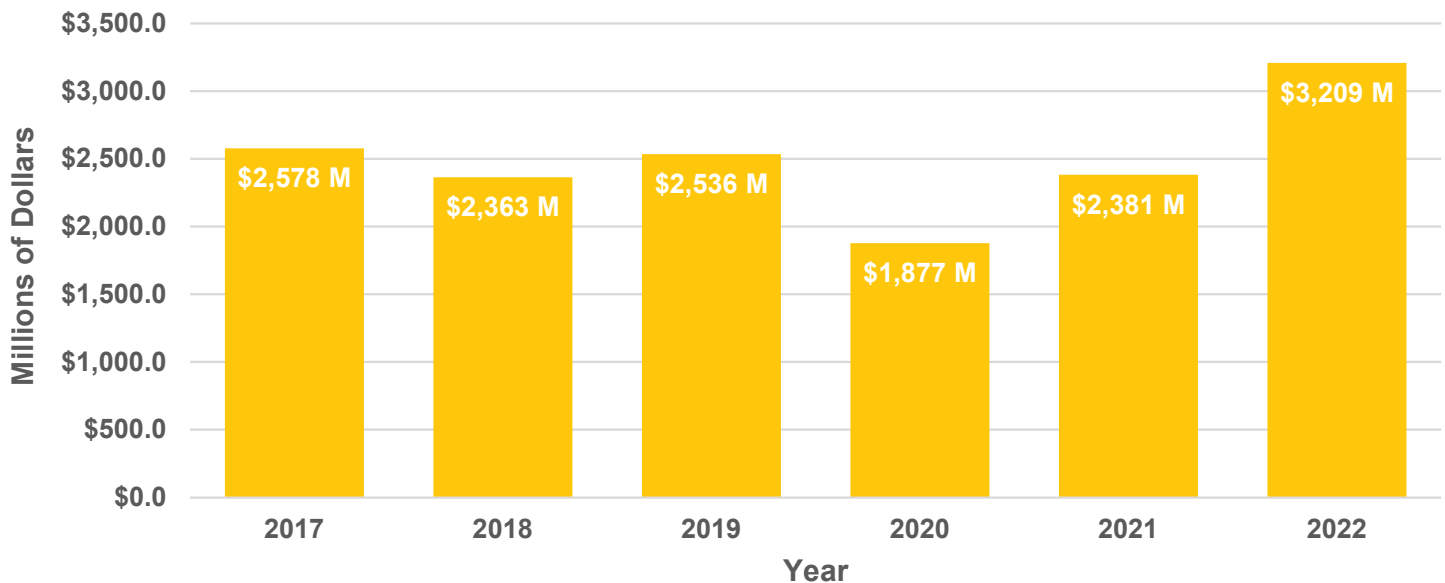
41. Kentucky Cabinet for Economic Development. Manufacturing. Retrieved from: https://ced.ky.gov/Existing_Industries/Manufacturing. Accessed: November 2023.
42. Ibid.
43. Kentucky Cabinet for Economic Development. Aerospace. Retrieved from: https://ced.ky.gov/Existing_Industries/Aerospace. Accessed: November 2023.
44. Kentucky Cabinet for Economic Development. Food & Beverage. Retrieved from: https://ced.ky.gov/Existing_Industries/Food_Beverage. Accessed: November 2023.
45. Ibid.
46. United States Department of Agriculture. Farms and Land in Farms 2022 Summary. February 2023.

Beyond agricultural production, Kentucky is famous for their bourbon. According to the Kentucky Distillers' Association, 95 percent of the world's bourbon supply is crafted in Kentucky, with an industry that supported over 22,500 jobs in 2022.⁴⁷ Moreover, the bourbon industry in Kentucky is expected to continue to grow, with over \$5.2 billion in additional projects over the next five years.⁴⁸

Primary Metals

Kentucky's primary metal industry focuses on a key select metals including aluminum, copper, and steel.

Figure 2-6. Gross Domestic Product: Primary Metal Manufacturing in Kentucky



Source: Federal Reserve Bank of St. Louis. Gross Domestic Product: Primary Metal Manufacturing (NAICS 331) in Kentucky, Millions of Dollars, Annual, Not Seasonally Adjusted

Kentucky's aluminum and copper sector employs over 21,000 full-time workers and has over 180 related facilities.⁴⁹ This industry is supported by a demand for products that are lightweight and fuel efficient and can be manufactured using innovative methods. Steel production is also important in Kentucky, with over 40 steel and iron companies, supporting almost 6,400 full-time employees.⁵⁰

47. Kentucky Distillers' Association. 2022 Unfiltered- The Proof is Here. 2023. Retrieved from: https://kybourbon.com/wp-content/uploads/2023/08/2023-UNFILTERED_final.pdf.

48. Kentucky Distillers' Association. Retrieved from: <https://kybourbon.com/industry/impact/>. Accessed: November 2023.

49. Kentucky Cabinet for Economic Development. Primary Metals. Retrieved from: https://ced.ky.gov/Existing_Industries/Primary_Metals. Accessed: November 2023.

50. Ibid.

Chemicals

Kentucky is home to over 240 chemical manufacturing companies, and the chemical industry supports around 17,000 workers.⁵¹ In 2021, Kentucky's chemical manufacturing sector produced almost \$2.9 billion in output.⁵² The top chemicals manufactured in Kentucky are listed in **Table 2-13** below.

Table 2-13. Kentucky Chemical Manufacturing

Chemical	Use
Silicones	Manufacture sealants, cooking utensils, adhesives, lubricants, medicines
Polymers of Vinyl Chloride	Manufacture of PVC for pipes, wire coatings, and packaging materials
Ethylene	Plastics, Textiles, Antifreeze, Solvents
Ethanol	Production of Gasoline
Vinyl Acetate	Manufacture of PVA for adhesives, wood glues, gum base, and automotive parts

Plastics and Rubber

In line with the automotive industry, the state has a notable plastic and rubber industry as well. The industry not only supports the production of vehicles and vehicle parts, but it supports other sectors as well. Kentucky is home to over 260 plastic and rubber manufacturers, employing over 30,000 workers.⁵³ In 2021, Kentucky manufactured almost \$2.0 billion in plastic and rubber products.⁵⁴

Distribution and Logistics

Kentucky is positioned within 600 miles of over half of the nation's population and manufacturing, as seen in **Figure 2-7**.⁵⁵ Moreover, the state has:

- An extensive system of interstates and parkways;
- Five Class I railroads, One Class II railroad, and Nine Class III railroads;
- Connections to the Ohio River, Mississippi River, and Tennessee River;
- Six commercial airports; and,
- Around 41,000 total miles of pipeline.⁵⁶

51. Kentucky Cabinet for Economic Development. Chemicals. Retrieved from: https://ced.ky.gov/Existing_Industries/Chemicals. Accessed: November 2023.

52. National Association of Manufacturers. 2022 Kentucky Manufacturing Facts.

53. Kentucky Cabinet for Economic Development. Plastics and Rubber. Retrieved from: https://ced.ky.gov/Existing_Industries/Chemicals. Accessed: November 2023.

54. National Association of Manufacturers. 2022 Kentucky Manufacturing Facts.

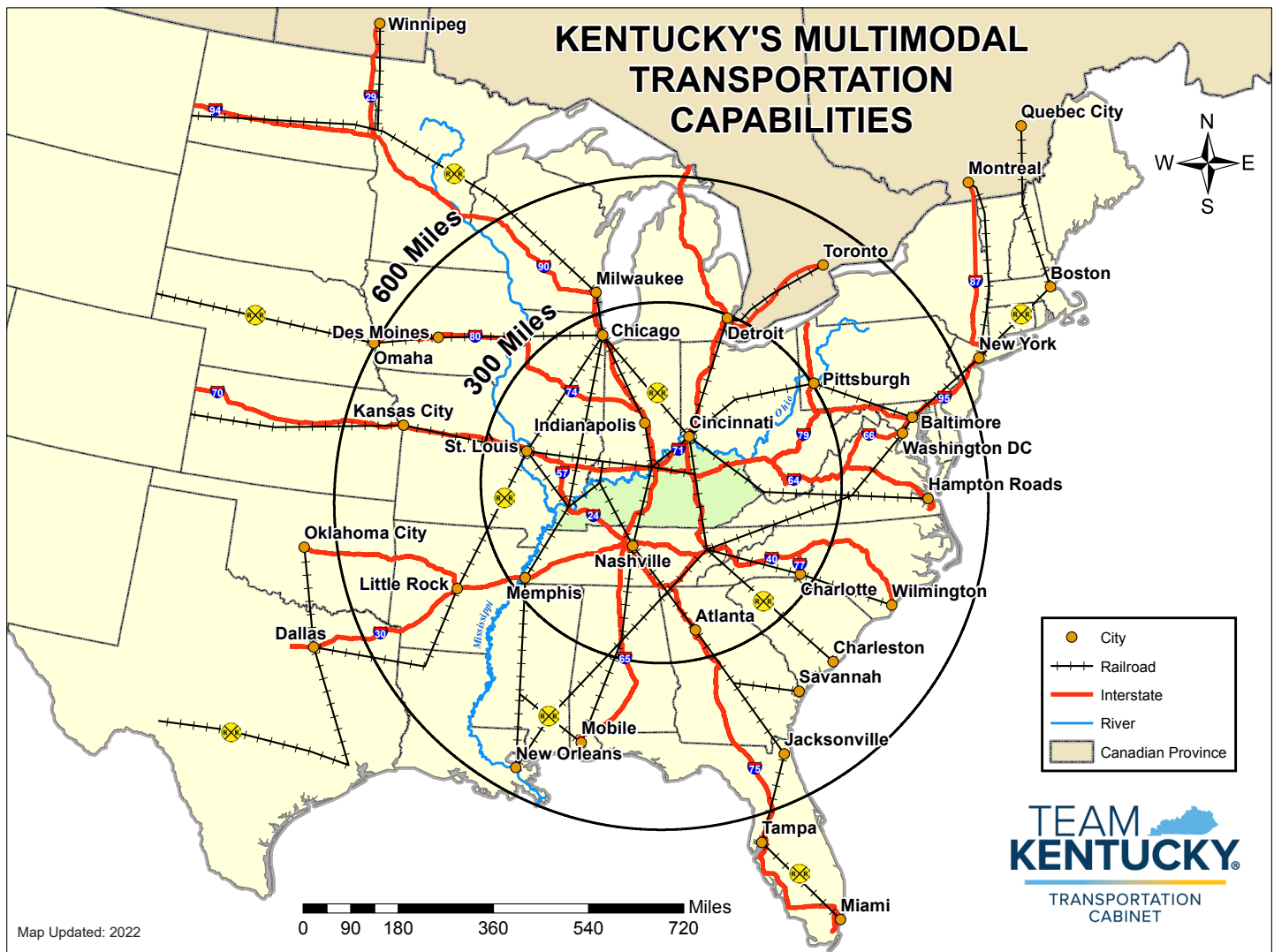
55. Kentucky Transportation Cabinet. 2022 Kentucky Freight Plan. May 3, 2023. Retrieved from: <https://transportation.ky.gov/MultimodalFreight/Pages/FREIGHT.aspx>. Accessed: November 2023.

56. Ibid.

Therefore, the distribution and logistics industry is one of Kentucky's key industries. Based on FHWA's FAF, in 2022, over 662.7 million tons of freight were transported to or from Kentucky.⁵⁷

Moreover, Kentucky is home to over 600 distribution and logistics facilities employing over 91,000 workers.⁵⁸ Additionally, since 2017, more than \$5.7 billion has been invested into the industry, which is expected to support more than 18,600 jobs.⁵⁹

Figure 2-7. Kentucky's Multimodal Transportation Capabilities



Source: Kentucky Transportation Cabinet

57. Federal Highway Administration. Freight Analysis Framework 5.0. July 28, 2023. Accessed: November 2023.

58. Kentucky Cabinet for Economic Development. Distribution & Logistics. Retrieved from: https://ced.ky.gov/Existing_Industries/Logistics_Distribution. Accessed: November 2023.

59. Ibid.

2.2.2. Freight Demand and Growth

The freight demand trends analysis is intended to establish a clear understanding of the types and volumes of commodities that are currently transported by rail in Kentucky, whether they are originating, terminating, intrastate, or through movements. This information, combined with an evaluation of the share of freight transportation by each mode (i.e., road, rail, pipeline, air, and water), facilitates a broader understanding of intermodal connectivity and potential opportunities to maximize the utility of the rail network.

Freight demand trends in Kentucky are mapped in [Interactive Application 2-10](#).

DATA SOURCES

Two primary data sources were used in the analysis of Kentucky's commodity flows: the STB Carload Waybill Sample and the FAF.

Carload Waybill Sample: The Carload Waybill Sample is a representative sample of shipment data reported by railroads that deliver more than 4,500 railcars per year. Freight railroads that deliver (terminate) less than 4,500 railcars annually do not contribute to this dataset. However, shipments originating or terminating on non-repeating railroads may still be reported by a connecting railroad interchange partner. The Carload Waybill Sample is considered representative of all freight transported by rail and provides insight into inbound, outbound, internal, and through movements.

Each record describes the origin and destination stations, the commodity type, the number of carloads, and the tonnage of an individual shipment. The dataset also provides an expansion factor for each record that allows the data to be extrapolated to represent total annual volumes.



Source: Kentucky Transportation Cabinet

Freight Analysis Framework: FAF is a publicly available national freight database with geographic coverage of all state and major trade zones. FAF provides data classified by freight tonnage and freight value as well as mode share. The dataset also includes a forecast of freight tonnage and value for each mode.

All freight data recorded in the Carload Waybill Sample classify freight using a seven-digit Standard Transportation Commodity Code (STCC), which provides a detailed commodity description. Meanwhile, FAF uses a two-digit Standard Classification of Transportation Goods, which only describes the general category of the commodity.

FREIGHT RAIL COMMODITY FLOWS BY DIRECTION

Recent freight rail transportation data for Kentucky was derived from the 2021 STB Carload Waybill Sample. Rail movements were categorized by direction (i.e., inbound, outbound, intrastate, and through) and commodities, which are measured in both tonnage and carloads. The four directional categories are:

- **Inbound:** Freight originating outside of the state with a destination in Kentucky.
- **Outbound:** Freight originating within the state and destined for outside Kentucky.
- **Intrastate:** Freight originating in the state and terminating at another station in the state.
- **Through:** Freight originating and destined outside of the state but traveling along Kentucky's rail network to reach its destination.

Overview

As presented in **Table 2-14**, approximately 200 million tons and 3.5 million carloads/containers were transported over the Kentucky rail network. Of all rail movements, through movements (i.e., volumes originating and terminating outside of Kentucky) represent the largest share of freight traffic. Specifically, about 80 percent of the freight volumes (in tons) and 83 percent of the carload/container volumes in Kentucky were transported through the state. Outbound freight rail traffic represents the second highest volume of Kentucky freight rail movements, with almost 19 million tons and 335 thousand carloads/containers transported out of the State. This corresponds to approximately nine percent of the State's total volume in both tonnage and carloads/containers. Inbound movements are slightly smaller in magnitude, comprising approximately seven percent of the volume transported and six percent of all carload/container movements. Finally, the intrastate movements represented the smallest share of freight rail volumes transported within the State. Only three percent of the total volume transported, and two percent of the total carloads/containers were within the State.

Additionally, the majority of the volumes transported through Kentucky in 2021 were non-containerized commodities, with 183.3 million tons of carload freight compared to 16.5 million tons of containerized commodities (intermodal units).



Source: Kentucky Transportation Cabinet

Table 2-14. Kentucky Freight Rail Movement by Direction, 2021

Traffic Type	Total Tonnage (in thousands)	Percentage	Total Carloads or Containers (in thousands)	Percentage	Tons per Carload or Container
Carloads					
Inbound	13,977	8%	141	7%	99
Outbound	18,021	10%	253	12%	71
Intrastate	5,832	3%	62	3%	94
Through	145,450	79%	1,601	78%	91
TOTAL	183,281	100%	2,059	100%	89
Intermodal Containers					
Inbound	852	5%	77	5%	11
Outbound	794	5%	82	6%	10
Intrastate	0	0%	0	0%	0
Through	14,814	90%	1,316	89%	11
TOTAL	16,460	100%	1,475	100%	11
Total Carloads and Containers					
Inbound	14,829	7%	218	6%	68
Outbound	18,815	9%	335	9%	56
Intrastate	5,832	3%	62	2%	94
Through	160,264	80%	2,917	83%	55
TOTAL	199,741	100%	3,534	100%	57

Source: 2021 STB Carload Waybill Sample

Major Commodities

The Kentucky rail network handles a wide range of freight commodities but coal, chemicals or allied products, and farm products were the largest by tonnage in 2021. **Table 2-15** lists the top commodities transported by rail in Kentucky.

For inbound and intrastate movements, coal and chemical or allied products were the top two commodities, followed by petroleum or coal products. The top three commodities transported out of Kentucky were coal, transportation equipment, and chemicals or allied products. For commodities transported through Kentucky, the top three were coal, chemicals or allied products, and farm products.

Table 2-15. Kentucky Major Commodities Railed by Direction, 2021 (in Thousands of Tons)

STCC*	Commodity Description	Inbound	Outbound	Intrastate	Through	Total
11	Coal	5,786	8,319	3,505	37,973	55,582
28	Chemicals or Allied Products	2,369	2,146	1,468	30,620	36,602
1	Farm Products	288	785	18	25,199	26,289
20	Food or Kindred Products	809	402	37	16,627	17,875
33	Primary Metal Products	1,368	679	2	8,844	10,892
46	Misc Mixed Shipments	735	481	0	9,534	10,749
29	Petroleum or Coal Products	1,693	408	252	5,707	8,060
37	Transportation Equipment	184	2,581	212	3,853	6,830
26	Pulp, Paper or Allied Products	570	282	5	5,856	6,713
14	Nonmetallic Minerals	75	850	240	3,277	4,442
32	Clay, Concrete, Glass or Stone	140	756	6	2,972	3,874
24	Logs, Lumber, Wood Prod.	361	69	74	2,851	3,356
40	Waste or Scrap Materials Not Identified by Producing Industry	352	626	12	1,895	2,886
10	Metallic Ores	29	0	1	1,315	1,345
13	Petroleum Prod, Natural Gas	0	9	0	1,217	1,226
23	Apparel or Related Products	0	0	0	542	542
36	Electrical Equipment	31	265	1	235	532
25	Furniture or Fixtures	0	22	0	361	383
42	Shipping Containers	0	72	0	303	375
30	Rubber or Misc Plastics	0	0	0	313	314
44	Unknown	0	12	0	158	170
35	Machinery	6	2	0	147	155
41	Misc Freight Shipments	30	24	0	91	145
48	Waste Hazardous Materials or Waste Hazardous Substances	0	8	0	122	131
27	Printed Matter	0	0	0	56	56
34	Fabricated Metal Products	2	8	0	45	55
39	Misc Manufacturing Products	0	1	0	43	43
19	Ordinance or Accessories	0	9	0	34	43
22	Textile Mill Products	0	0	0	28	29
45	Unknown	0	0	0	24	24
8	Forest Products	0	0	0	11	11
38	Instruments	0	0	0	5	5
47	Small Pig Freight Shipments	0	0	0	2	2
9	Fresh Fish or Marine Products	0	0	0	1	1
31	Leather or Leather Products	0	0	0	1	1
21	Tobacco Products	0	0	0	1	1
TOTAL		14,829	18,815	5,832	160,264	199,741

*Standard Transportation Commodity Code

Source: 2021 STB Carload Waybill Sample

Inbound Freight Movement

Table 2-16 presents the top freight rail commodities by weight destined for Kentucky. Coal is the largest inbound commodity into Kentucky, used mainly for electric power generation⁶⁰. Following coal, the next largest inbound commodity is chemicals or allied products, followed by petroleum or coal products, primary metal products, and food or kindred products to round out the top five inbound commodities.

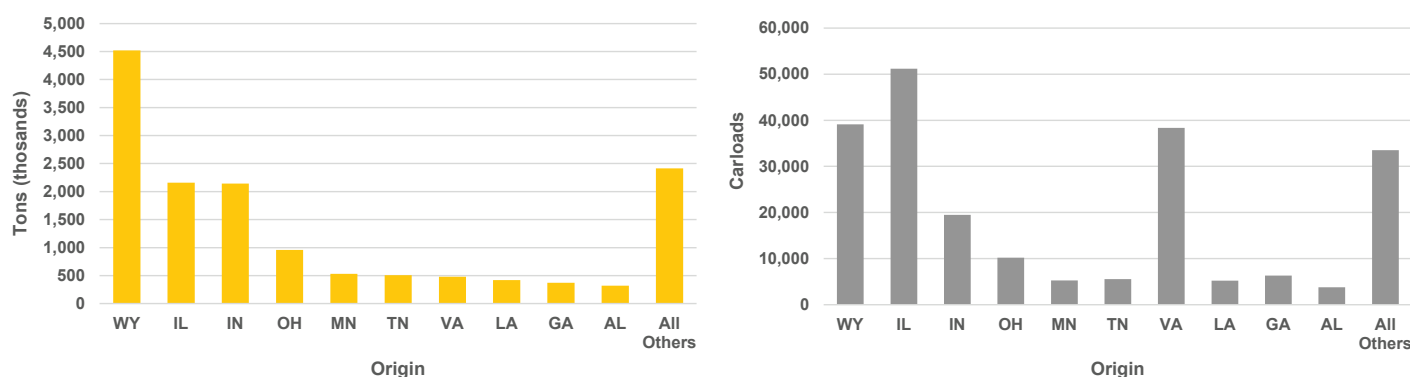
Table 2-16. Top Inbound Freight Commodities, by Weight (2021)

STCC	Commodity Description	Tons (in thousands)
11	Coal	5,786
28	Chemicals or Allied Products	2,369
29	Petroleum or Coal Products	1,693
33	Primary Metal Products	1,368
20	Food or Kindred Products	809
46	Misc Mixed Shipments	735
26	Pulp, Paper or Allied Products	570
24	Logs, Lumber, Wood Prod.	361
40	Waste or Scrap Materials Not Identified by Producing Industry	352
1	Farm Products	288
All Other Commodities		499
TOTAL		14,829

Source: 2021 STB Carload Waybill Sample

Figure 2-8 presents the top 10 states of origin for inbound rail traffic terminating in Kentucky by tonnage. Wyoming is the largest source of inbound rail traffic in terms of tonnage, followed by Illinois.

Figure 2-8. Origins of Inbound Rail Traffic Destined for Kentucky, 2021



Source: 2021 STB Carload Waybill Sample

60. U.S. Energy Information Administration. Profile Analysis – Kentucky. September 21, 2023. Accessed: December 2023. Retrieved from: <https://www.eia.gov/state/analysis.php?sid=KY>

Outbound Freight Movement

Table 2-17 presents the top freight rail commodities originating in Kentucky, by weight. Interestingly, coal is the largest commodity shipped into and out of Kentucky, by volume. The coal shipped into Kentucky is used mainly for electricity generation purposes. Coal extracted from mines in Kentucky is shipped to other states to support electricity generation.⁶¹ Rounding out the top five commodities shipped out of Kentucky are transportation equipment, chemical or allied products, nonmetallic minerals, and farm products.

Table 2-17. Top Freight Commodities Originating in Kentucky, by Weight (2021)

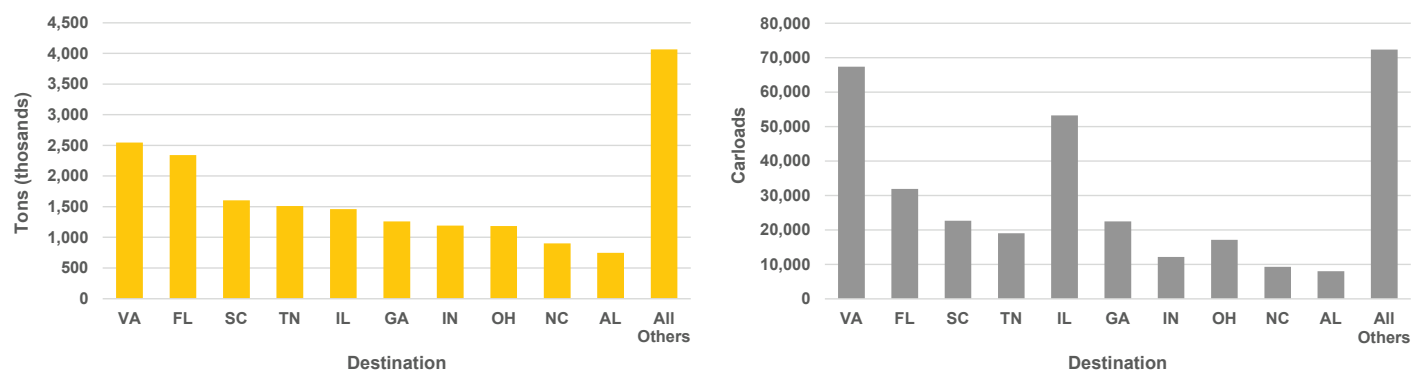
STCC	Commodity Description	Tons (in thousands)
11	Coal	8,319
37	Transportation Equipment	2,581
28	Chemical or Allied Products	2,146
14	Nonmetallic Minerals	850
1	Farm Products	785
32	Clay, Concrete, Glass or Stone	756
33	Primary Metal Products	679
40	Waste or Scrap Materials Not Identified	626
46	Misc Mixed Shipments	481
29	Petroleum or Coal Products	408
All Other Commodities		1,185
TOTAL		18,815

Source: 2021 STB Carload Waybill Sample

Figure 2-9 highlights the top 10 destinations for outbound rail traffic originating in Kentucky. Virginia receives the largest share of freight rail traffic from Kentucky in terms of tonnage, followed by Florida, South Carolina, Tennessee, and Illinois. The top commodity transported to Virginia from Kentucky is coal, over two million tons, comprising the majority of total tonnage transported. This is followed by miscellaneous mixed shipments and transportation equipment that represent approximately 327,000 and 51,000 tons, respectively.

61. U.S. Energy Information Administration. Profile Analysis – Kentucky. September 21, 2023.

Figure 2-9. Destination of Outbound Rail Traffic Originating in Kentucky, 2021



Source: 2021 STB Carload Waybill Sample

Intrastate Freight Movement

Table 2-18 presents the intrastate rail tonnage by commodity in Kentucky. Coal is the largest commodity transported within the state. Approximately two-fifths of the coal mined in Kentucky remains in the state.⁶² The next four largest commodities transported within Kentucky include chemicals or allied products, petroleum or coal products, nonmetallic minerals, and transportation equipment.

Table 2-18. Top Freight Commodities Traveling Within Kentucky, by Weight (2021)

STCC	Commodity Description	Tons (in thousands)
11	Coal	3,505
28	Chemicals or Allied Products	1,468
29	Petroleum or Coal Products	252
14	Nonmetallic Minerals	240
37	Transportation Equipment	212
24	Logs, Lumber, Wood Prod.	74
20	Food or Kindred Products	37
1	Farm Products	18
40	Waste or Scrap Materials Not Identified	12
32	Clay, Concrete, Glass or Stone	6
All Other Commodities		9
TOTAL		5,832

Source: 2021 STB Carload Waybill Sample

Through Freight Movement

Table 2-19 presents the top freight rail commodities traveling through Kentucky, by weight. Coal was the largest commodity, at almost 38.0 million tons, shipped through the state in 2021. Rounding out the top five commodities passing through Kentucky, were chemicals or allied products, farm products, food or kindred products, and miscellaneous mixed shipments.

62. U.S. Energy Information Administration. Profile Analysis – Kentucky. September 21, 2023.

Table 2-19. Top Freight Commodities Traveling Through Kentucky, by Weight (2021)

STCC	Commodity Description	Tons (in thousands)
11	Coal	37,973
28	Chemicals or Allied Products	30,620
1	Farm Products	25,199
20	Food or Kindred Products	16,627
46	Misc Mixed Shipments	9,534
33	Primary Metal Products	8,844
26	Pulp, Paper or Allied Products	5,856
29	Petroleum or Coal Products	5,707
37	Transportation Equipment	3,853
14	Nonmetallic Minerals	3,277
All Other Commodities		12,775
TOTAL		160,264

Source: 2021 STB Carload Waybill Sample

FREIGHT TRANSPORTATION BY MODE

In 2021, 19.6 billion tons of freight were shipped in the United States, of which 1.5 billion tons were shipped by rail, representing 7.7 percent of the total freight moved in the United States. In Kentucky, 656 million tons of freight were shipped in 2021. Approximately, 48.0 million tons were shipped by rail, representing 7.3 percent of Kentucky's total freight volume.

In terms of tonnage, most of Kentucky's freight was shipped by truck; the remainder traveled mostly by pipeline, water, or rail.

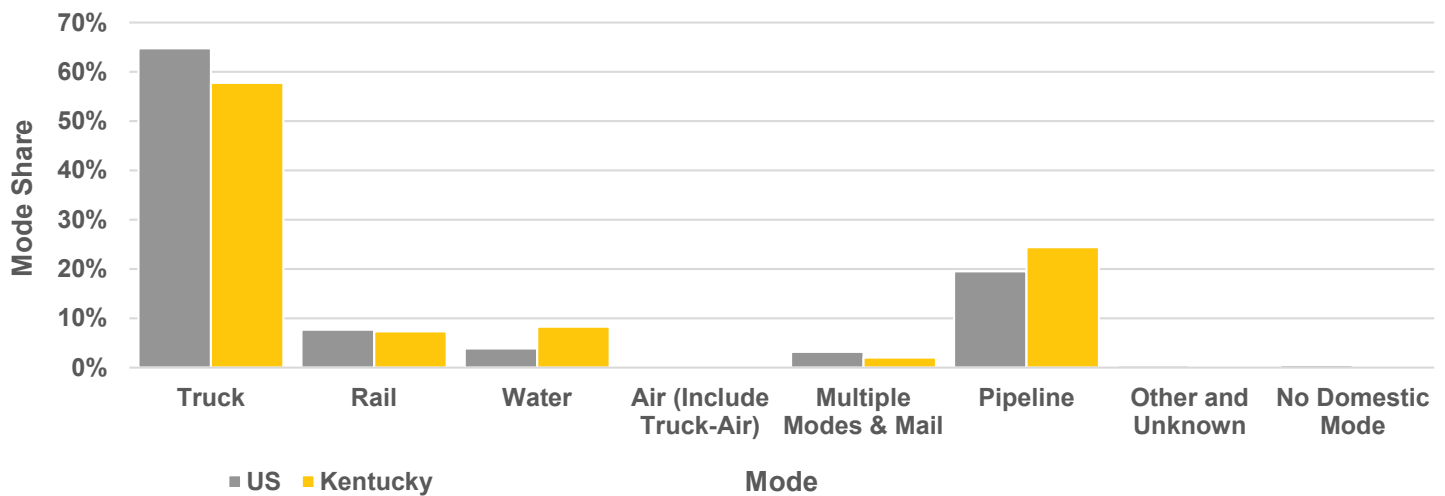
Figure 2-10 illustrates the share of freight tonnage carried by mode in Kentucky and across the United States in 2021, with detailed results presented in **Table 2-20**. Kentucky transports a larger share of its total freight by water and pipeline, and a smaller share by truck, compared to the United States overall.

Table 2-21 presents the value of all freight shipped in 2021 by mode for Kentucky and the United States. The total value of freight shipped through Kentucky was \$691.5 million, of which rail transported \$16.3 million (2.4%).



Source: Rick Lohre / Adobe Stock

Figure 2-10. Distribution of Freight Tonnage by Mode for Kentucky and the U.S., 2021



Source: Federal Highway Administration Freight Analysis Framework 5.0

Table 2-20. Freight Tonnage by Mode for Kentucky and the U.S., 2021

Mode	U.S. Tonnage	U.S. Percentage	KY Tonnage	KY Percentage
Truck	12,677,556,364	64.7%	379,002,602	57.8%
Rail	1,508,867,390	7.7%	48,000,166	7.3%
Water	761,471,769	3.9%	54,205,385	8.3%
Air	7,433,804	0.0%	673,778	0.1%
Multiple Modes and Mail	617,902,864	3.2%	13,248,949	2.0%
Pipeline	3,817,315,565	19.5%	160,236,559	24.4%
Other and Unknown	85,220,610	0.4%	619,084	0.1%
No Domestic Mode	105,619,299	0.5%	0	0.0%
TOTAL	19,581,387,663	100.0%	655,986,521	100.0%

Source: Federal Highway Administration Freight Analysis Framework 5.0

Table 2-21. Freight Value (in Millions) by Mode for Kentucky and the United States, 2021

Mode	U.S. Value	U.S. Percentage	KY Value	KY Percentage
Truck	\$13,415,010	72.5%	\$437,408	63.2%
Rail	\$558,653	3.0%	\$16,258	2.4%
Water	\$245,972	1.3%	\$6,254	0.9%
Air	\$658,396	3.6%	\$110,656	16.0%
Multiple Modes and Mail	\$2,557,626	13.8%	\$83,103	12.0%
Pipeline	\$1,013,678	5.5%	\$37,576	5.4%
Other and Unknown	\$28,990	0.2%	\$317	0.0%
No Domestic Mode	\$36,959	0.2%	\$0	0.0%
TOTAL	\$18,515,284	100.0%	\$691,572	100.0%

Source: Federal Highway Administration Freight Analysis Framework 5.0

FREIGHT FORECAST ANALYSIS (TO 2045)

The Carload Waybill Sample data provides the starting point for building forecasts of future rail movements in Kentucky by direction and by commodity. In deriving the 2045 movements, growth rates between 2021 and 2045 were applied by direction and commodity. The compound annual growth rate (CAGR) was calculated for the total rail freight movement based on the direction. The overall freight volumes are expected to grow. Outbound and through freight volumes are projected to experience the greatest growth. The forecast predicts a potential slight decrease for intrastate volumes, driven by the FAF assumption of decreasing coal volumes transported within Kentucky.

Table 2-22. Kentucky Rail Freight Forecast Summary 2021-2045

Traffic Type	2021 Tonnage (in thousands)	2021 Percent	2045 Tonnage (in thousands)	2045 Percent	Compound Annual Growth Rate
Inbound	14,829	7.4%	16,633	6.5%	0.5%
Outbound	18,815	9.4%	25,155	9.8%	1.2%
Intrastate	5,832	2.9%	5,575	2.2%	-0.2%
Through	160,264	80.2%	208,384	81.5%	1.1%
TOTAL	199,741	100.0%	255,748	100.0%	1.0%

Source: 2021 STB Carload Waybill Sample and Federal Highway Administration Freight Analysis Framework 5.0



Source: Kentucky Transportation Cabinet

2.2.3. Fuel Cost Trends

Historic fuel prices (gasoline and diesel) are shown in **Figure 2-11**. In 2022, fuel prices reached an all-time high due to market forces. Higher fuel costs tend to increase the cost of trucking more than the cost of shipping by rail. As a result, rail may become more attractive for many shippers if fuel costs remain elevated over a long period of time.

Figure 2-11. Midwest Weekly Retail Gasoline and Diesel Prices, 1995 to 2023



Source: U.S. Energy Information Administration

2.2.4. Rail Congestion Trends

Average railroad traffic density ranges from 0 to 27 trains per day across principal main line subdivisions within Kentucky. **Table 2-23** lists the average number of trains per day across each principal subdivision. None of the railroad owners in Kentucky identified any existing railroad throughput bottlenecks. The freight railroad infrastructure in Kentucky is mapped in [Interactive Application 2-1](#).

Table 2-23. Average Trains per Day by Railroad Subdivision

Railroad	Subdivision	Average Trains Per Day
CN	Cairo	14
CN	Chiles	14
CN	P&I	11
CSX	Big Sandy	4
CSX	Cincinnati	4
CSX	Cincinnati - Corbin	5
CSX	Cincinnati Terminal	13
CSX	Henderson	14
CSX	Kanawha	18
CSX	KD	6
CSX	Louisville - Cincinnati	7
CSX	Louisville Terminal	7
CSX	Main Line	7
CSX	Northern	12
CSX	Russell	10
LIRC	Louisville Secondary	8
NS	CNO&TP North	27
NS	CNO&TP South	16
NS	Harrodsburg	9
NS	Louisville	10
NS	Pocahontas	3
PAL	Louisville	8
PAL	Paducah	3
RJCC	Old Road	4
RJCC	Versailles	4
All Other Railroads	All Other Subdivisions	2 or fewer

Source: Federal Railroad Administration, Highway-Rail Grade Crossing Inventory Database

2.2.5. Highway and Airport Congestion Trends

HIGHWAYS

According to the Kentucky's Long Range Transportation Plan (LRTP), the state is ranked 18th in interstate lane-miles and has over 80,000 miles of public roadways, of which, 80 percent are in rural

areas.⁶³ Of the total public roads:

- Half are maintained by individual county governments;
- One-third are maintained by the State;
- 13 percent are maintained by city or municipal governments; and,
- 2 percent are owned and maintained by other Federal, State, or local agencies.⁶⁴

Though interstate highways only reflect 10 percent of Kentucky's roadway infrastructure, it is the most used roadway infrastructure accounting for over 35 percent of the State's vehicle-miles traveled (VMT). This is followed by principal arterials, which account for 34 percent of the State's VMT.⁶⁵ In total, the annual VMT on all roads in Kentucky in 2021 was 48.1 billion miles.⁶⁶

A 2022 study by TRIP highlighted that 28 percent of the State's major roads are in poor or mediocre condition.⁶⁷ Meanwhile, for Kentucky's locally and state-maintained roads, seven percent are categorized as being in poor condition and 21 percent are in mediocre condition. **Table 2-24** highlights the pavement condition for major roadways in urban areas and statewide. For the State's bridges, the report indicated that seven percent are rated poor or structurally deficient, 65 percent are rated fair, and 28 percent are rated good. Finally, the report stated that roadway congestion in Kentucky resulted in an annual estimated \$1.8 billion in lost travel time and wasted fuel.⁶⁸

Table 2-24. Kentucky Road Pavement Condition, by Region (2022)

Location	Poor	Mediocre	Fair	Good
Bowling Green	2%	11%	15%	72%
Lexington	7%	13%	22%	58%
Louisville	19%	25%	20%	36%
Northern Kentucky	19%	19%	20%	43%
Owensboro	19%	29%	28%	24%
Kentucky Statewide	7%	21%	24%	48%

Source: TRIP, Kentucky Transportation by the Numbers: Meeting the State's Need for Safe, Smooth and Efficient Mobility, February 2022

63. Kentucky Transportation Cabinet, 2022-2045 Kentucky Long-Range Statewide Transportation. Retrieved from: <https://transportation.ky.gov/Planning/Pages/Long-Range-Statewide-Transportation-Plan.aspx>

64. Ibid.

65. Ibid.

66. U.S. Federal Highway Administration, Highway Statistics 2021, Functional System Travel – 2021. Retrieved from: <https://www.fhwa.dot.gov/policyinformation/statistics/2021/pdf/vm2.pdf>

67. TRIP, Kentucky Transportation by the Numbers: Meeting the State's Need for Safe, Smooth and Efficient Mobility. February 2022. Retrieved from: https://tripnet.org/wp-content/uploads/2022/02/TRIP_Kentucky_Transportation_by_the_Numbers_Report_February_2022.pdf

68. Ibid.

AIRPORTS

Kentucky has six active commercial service airports which two are international airports located in Northern Kentucky (Cincinnati area) and Louisville. The other four airports are regional airports with limited operations. Kentucky's commercial air service primarily exists for the convenience of the traveling public, but some freight and mail are hauled on commercial flights. The Louisville Muhammad Ali International Airport (formerly Standiford Field) in Louisville processes the largest share of both freight and mail tonnage. It is the home of UPS's main hub, Worldport. The Cincinnati/Northern Kentucky International Airport, in Boone County, handles most of the remaining tonnage. It is also home to the main U.S. hubs for both Amazon Air and DHL. **Table 2-25** shows commercial airline traffic statistics for Kentucky's commercial service airports in 2022.

Table 2-25. Commercial Air Traffic by Airport, 2022

City	Airport	Code	Passengers	Freight Tons	Mail Tons
Bowling Green	Bowling Green-Warren County Regional	BWG	146	22	0
Cincinnati	Cincinnati/Northern Kentucky International	CVG	2,715,019	538,272	2,006
Lexington	Blue Grass	LEX	428,748	56	1
Louisville	Muhammad Ali International	SDF	1,406,579	1,206,840	87,128
Owensboro	Owensboro Daviess County	OWB	7,892	0	0
Paducah	Barkley Regional	PAH	11,233	0	0
TOTAL			4,569,617	1,745,190	89,135

Source: Bureau of Transportation Statistics, U.S. Airline Traffic by Airport

Two of Kentucky's commercial service airports (Owensboro and Paducah) are Essential Air Service (EAS) communities. The EAS program is intended to provide reliable commercial air service to more isolated, rural communities throughout the U.S. by providing subsidies to airlines that serve them through a competitive bid process.

Additionally, Kentucky is home to Campbell Army Airfield near Hopkinsville, Kentucky. Campbell Army Airfield is a military airport in Fort Campbell which recorded over 7,000 passengers and over 400 freight tons in 2022.⁶⁹

2.2.6. Land Use Trends

Kentucky is primarily a rural state, with forested mountains in the east (forming part of the Appalachian Range) and rolling hills, farmland, and forests in the central and western regions.

Industrial land uses are present within both urban and rural areas.

69. Bureau of Transportation Statistics. U.S. Airline Traffic by Airport. Retrieved from: <https://www.bts.gov/browse-statistical-products-and-data/state-transportation-statistics/us-airline-traffic-airport>. Accessed: November 2023.

The Mississippi River runs along the state's westernmost border, and the Ohio River forms the state's northern border with Illinois, Indiana, and Ohio. Both of these navigable rivers enable water transportation and attract industrial uses.

Major cities include Louisville and Lexington. Kentucky also encompasses part of the greater Cincinnati, Ohio metropolitan area. Other metropolitan areas within Kentucky include: Ashland (within the Huntington, West Virginia area), Fort Campbell (within the Clarksville, Tennessee area), Henderson (within the Evansville, Indiana area), Bowling Green, Elizabethtown, Owensboro, and Paducah.

2.3. RAIL SERVICE NEEDS AND OPPORTUNITIES

This section highlights Kentucky's critical rail system challenges, service gaps, and improvement needs. The needs identification takes into account the current system, expected growth, future market and technology changes, and the potential for emerging markets. Chapters 3 and 4 present possible approaches and rail improvement strategies that could address the identified needs.

2.3.1. Trends Impacting Freight Rail Needs and Opportunities

NORFOLK SOUTHERN ACQUISITION OF CNO&TP CORRIDOR

In November of 2022, NS announced that it was executing a purchase agreement to acquire all assets of the 337-mile Cincinnati Southern Railway (CSR) between Cincinnati, Ohio and Chattanooga, Tennessee.⁷⁰ The CSR was constructed by and continued to be owned by the City of Cincinnati. NS and its predecessors had operated the line under lease since 1893 through a subsidiary railroad known as the Cincinnati, New Orleans and Texas Pacific (CNO&TP). The \$1.62 billion transaction was recently completed in 2024.

Once under full NS ownership, NS plans to make some additional improvements and investments along the corridor.

DOMESTIC MANUFACTURING AND INDUSTRIAL DEVELOPMENT

Domestic manufacturing continues to be strong in Kentucky. According to the Kentucky Cabinet for Economic Development, Kentucky's ideal location, skilled workforce and business-friendly environment make the commonwealth a great place for manufacturing companies to make and ship products to every corner of the globe.⁷¹

Other notable industrial activity present in Kentucky is the production and processing of raw materials, including chemicals, primary metals, and plastics.

In the past five years, manufacturers announced over 900 facility location or expansion projects with a reported capital investment of more than \$28 billion and nearly 39,000 additional jobs. There are over

70. Railway Age, NS to Acquire Cincinnati Southern for \$1.62B, November 21, 2022. Retrieved from: <https://www.railwayage.com/freight/class-i/ns-to-acquire-cincinnati-southern-for-1-62b/>

71. Kentucky Cabinet for Economic Development, Manufacturing. Retrieved from: https://ced.ky.gov/Existing_Industries/Manufacturing

6,000 manufacturing-related facilities in Kentucky, many of which are directly or indirectly served by rail.

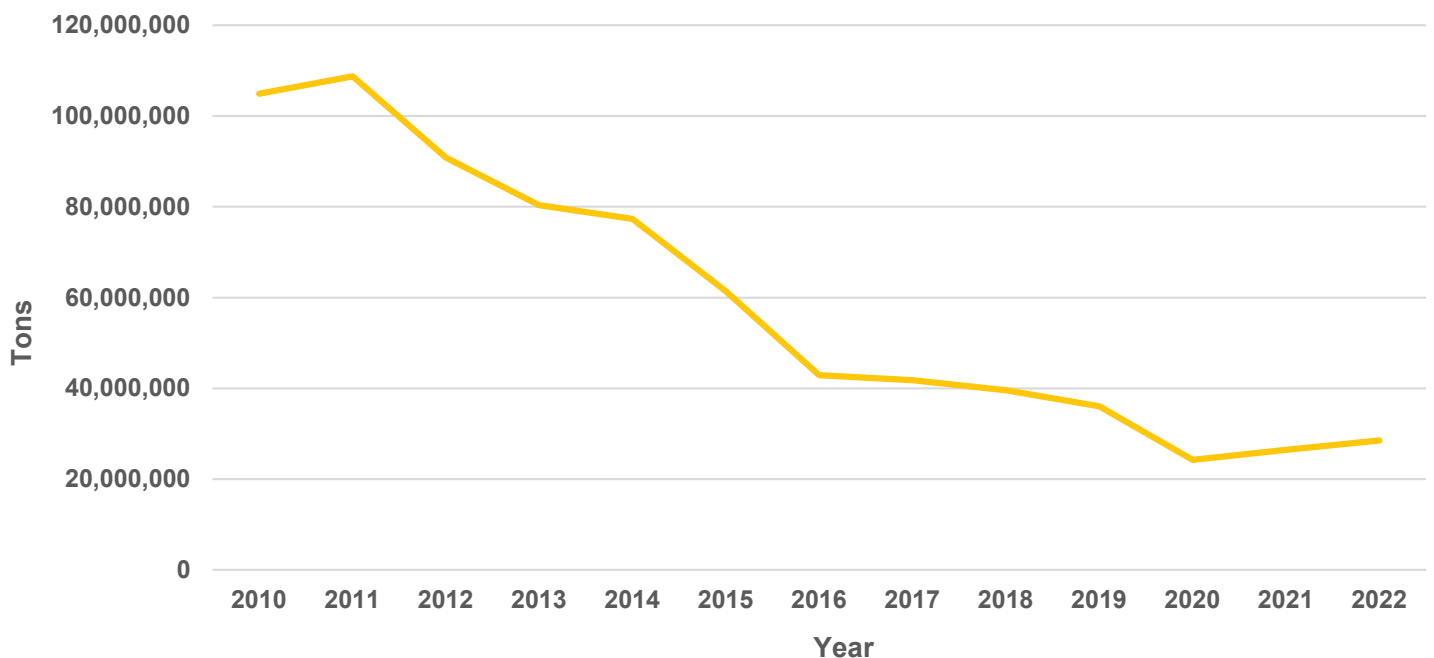
Many prospective firms interested in developing new manufacturing sites that require rail access prefer greenfield sites or shovel-ready sites in a rail-served industrial park. Railroads continue to collaborate with firms on industrial development opportunities and can aid in the site selection process.

Traffic growth from new shipper facilities continues to drive the need for infrastructure investment across each railroad's network to ensure network capacity and fluidity.

DECLINING COAL MINING ACTIVITY IN KENTUCKY

Historically, coal mining has been a major industry in Kentucky, with major coalfields in both the eastern and western areas of the state. Since 2010, there has been a precipitous decline in coal production in Kentucky. **Figure 2-12** illustrates the trend in statewide coal production from 2010 to 2022. This has a direct impact on freight rail traffic and transportation demand, as most coal is shipped by rail due to its large volumes often being transported over long distances. The reduction in outbound coal shipments may potentially lead to surplus rail network capacity and reduced railroad operations over specific corridors and at some yard and terminal facilities.

Figure 2-12. Total Annual Coal Production in Kentucky, 2010 to 2022



Source: U.S. Energy Information Administration

2.3.2. Trends Impacting Passenger Rail Needs and Opportunities

STATE FUNDING SOURCES

The Kentucky 2022-2045 LRSTP identifies transportation needs and opportunities that impact

passenger rail.⁷² Foremost among them is the need to establish a state funding source for rail, which would facilitate the opportunity to make public investments in rail to achieve public objectives. Currently, the state does not have dedicated funding sources for either freight or passenger rail development projects, including the need for Amtrak station upgrades. The development of a rail fund would allow public and private entities to work together to address passenger rail upgrades, freight rail improvements, and rail safety and security enhancements. This funding would help the rail industry in Kentucky to meet important industry standards.

DEMOGRAPHIC CHANGES

The LRSTP identifies demographic changes that are occurring in Kentucky that could increase the demand for passenger rail transportation in the future. These include Kentucky's aging population. By 2030, more than 30 percent of the state's population is projected to be over the age of 55. The projected growth rate of population groups over the age of 65 between 2010 and 2040 is significantly higher than for younger age groups. The 85+ age group has the highest projected growth rate in Kentucky, with a 15.7 percent growth projection over this time horizon. In addition, Kentucky has a high per-capita percentage of persons with disabilities compared to other states. Currently, nine percent of Kentucky's population is disabled, and most of them are dependent on public transportation for trips to jobs, school, or healthcare facilities.

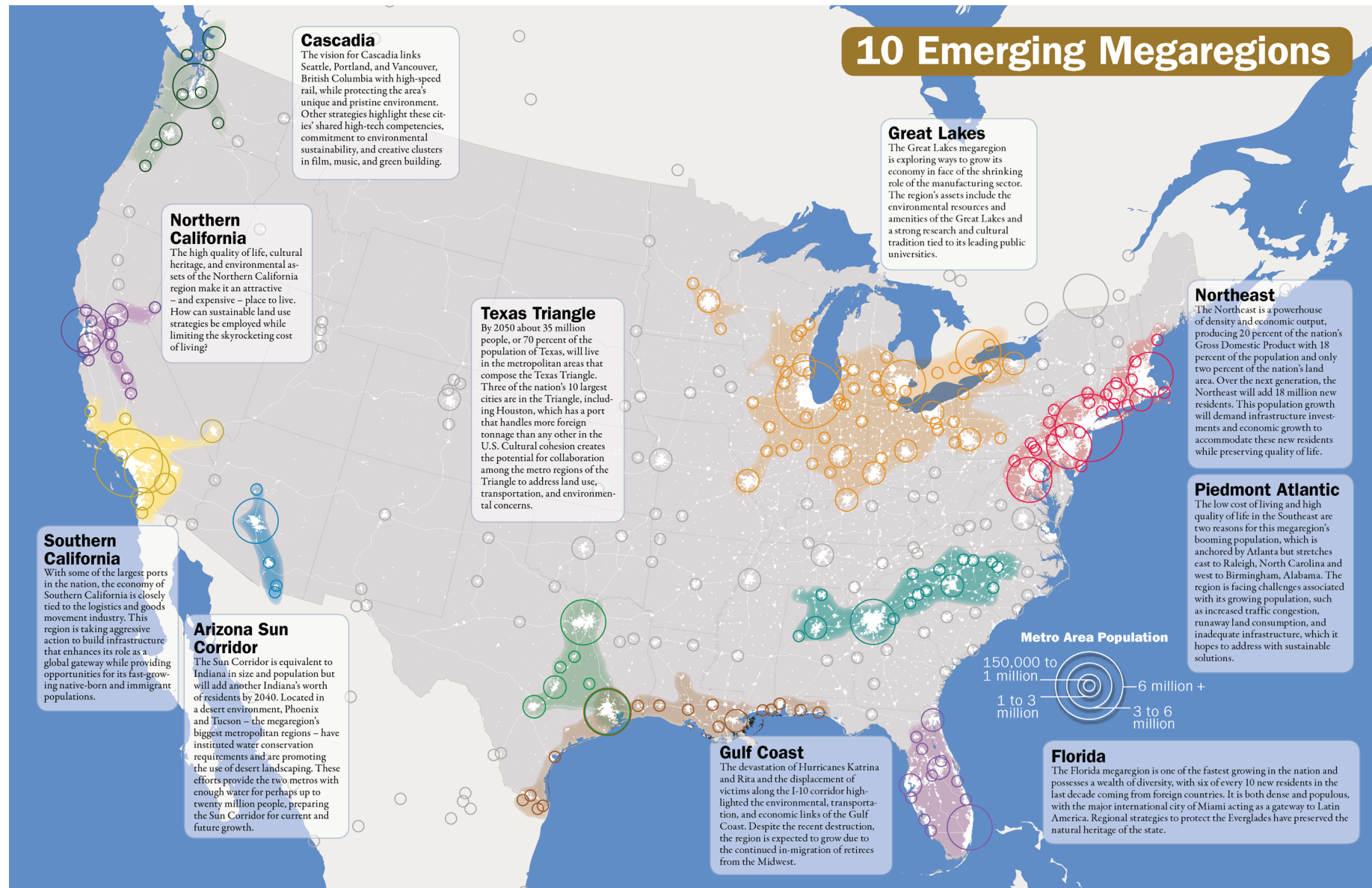
REGIONAL GROWTH

Kentucky is along the southern edge of the Great Lakes megaregion, one of 11 regions in the United States identified by the Regional Plan Association where population and employment is projected to be concentrated in the future. Louisville and Northern Kentucky are just inside the region, but the remainder of the state falls between the Great Lakes and Piedmont Atlantic regions. **Figure 2-13** shows the U.S. megaregions. More than 70 percent of the nation's population growth and economic growth from 2000 to 2050 is expected to take place in megaregions, which are extended networks of metropolitan regions linked by environmental systems, transportation networks, economies, and culture.⁷³ Megaregions will be dependent on multimodal transportation systems that can efficiently move people and goods between metropolitan areas to support economic growth, global competitiveness, and quality of life. Kentucky's location along the edge of the Great Lakes megaregion presents a long-term need as well as an opportunity. The need is to accommodate anticipated increases in travel demand, while the opportunity is to plan for growth and leverage national funding programs to improve multimodal transportation systems in and through the state.

72. Kentucky Transportation Cabinet, Kentucky 2022-2045 Long Range Statewide Transportation Plan. Retrieved from: <https://transportation.ky.gov/Planning/Long%20Range%20Plans%20Documents/2022-2045%20LRSTP%20Documents/2022-2045%20LRSTP%20Long-Range%20Statewide%20Transportation%20Plan.pdf>. Accessed March 2024

73. Regional Plan Association, America 2050 – A Prospectus. Retrieved from: <https://s3.us-east-1.amazonaws.com/rpa-org/pdfs/2050-Prospectus.pdf>. Accessed March 2024

Figure 2-13. U.S. Megaregions



Source: America 2050, Regional Plan Association