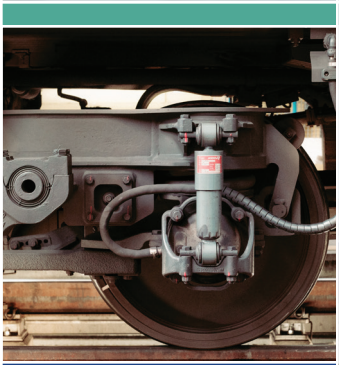
RAIL

2015

FLORIDA RAIL SYSTEM PLAN TECHNICAL APPENDIX

December 2018



FDOT

FLORIDA RAIL SYSTEM PLAN - 2018 UPDATE

The Florida Department of Transportation (FDOT) Freight and Multimodal Operations Office (FMO) present this 2018 update of the 2015 Florida Rail System Plan. As new challenges have had a great impact on the needs and future projects identified in the 2015 Rail System Plan, FDOT prepared this update.

CHALLENGES

- New State Rail Plan Guidance was created in 2013 to set a standard format and elaborate on required elements of the plan to include a 5-year update cycle, and a requirement for states seeking capital grants under Sections 301, 302, and 501. See https://www.fra.dot.gov/Page/P0511. Thereafter, FDOT prepared a 2015 Rail System Plan that was completed in December 2015. The Plan was not published at that time, as major industry changes were expected and no public outreach had yet been conducted.
- Major industry changes occurred that impacted most of the rail mileage in Florida:
    - CSX hired Hunter Harrison in spring of 2017, and radically changed the company by imposing precision-scheduled railroading instead of a hub-and-spoke system. This approach has been continued by CSX leadership through 2018.
    - Grupo México Transportes (GMXT), the leading rail freight transportation company in Mexico, successfully completed the acquisition of Florida East Coast Railway in 2017.
    - Brightline began service in 2018 between West Palm Beach, Ft. Lauderdale, and Miami later in the year, and with plans to connect to Orlando and potentially to Tampa in the future.

APPROACH

- The FAST Act (Title 49, Section 22702) passage in December 2015 changed the 5-year update cycle to a 4-year update cycle.
- FDOT initiated this 2018 update to revise the inventory and needs aspects to reflect current conditions.
- This updated version of the plan was shared for public review, edited based on feedback, and is now published as the 2015 Rail System Plan - 2018 Update to meet Florida statute and Federal Railroad Administration (FRA) requirements.
- As industry changes continue to impact the rail industry in Florida, FDOT will address any changes in needs and future projects in the next full Rail System Plan update. These industry changes include the intention for CSX to sell track between Pensacola and Jacksonville to Florida Gulf and Atlantic Railroad, as well as Brightline partnering with Virgin Group.

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APPENDIX A: FREIGHT RAIL SERVICE AND INVESTMENT PROGRAM

Table A-1: Short-Range (1-4 Years) Rail Investment Program

Project Name	Project Description	Project Benefits	Estimated Cost ($ millions)	Potential Funding Source
Eastport Yard - Install CPS/ABS from Grand Jct to SE Busch Yard	Install automatic block system to better facilitate crossovers and reduce delays	Improve operating efficiency and capacity	3.7	Railroad plus state and local sources
Welcome/Edison install CPS/ABS from Welcome to Edison	Install automatic block system to better facilitate crossovers and reduce delays	Improve operating efficiency, capacity and safety	7.1	Railroad plus state and local sources
Jax Double Track install crossover at Dinsmore	Double tracking for capacity and add crossover between tracks at Dinsmore	Improve operating efficiency, capacity and safety and security	1.8	Railroad plus state and local sources
Jax Double Track grand junction to Beaver St	Double tracking for capacity	Improve operating efficiency, capacity and safety and security	12.1	Railroad plus state and local sources
Jax Double Track convert industrial and Chinatown leads to mainline	Double tracking for capacity	Improve operating efficiency, capacity and safety	18.7	Railroad plus state and local sources
Jax Terminal Crossover at NE Amtrak Station	Add crossover between tracks at the Northeast Amtrak Station	Improve operating efficiency, capacity and safety	1.8	Railroad plus state and local sources
Intermodal Duval Yard Entrance additional track	Extend track at the Duval Yard entrance	Improve operating efficiency, capacity and safety	9.6	Railroad plus state and local sources
TSC Valrico Sub to NE Welcome	Upgrade track on the Valrico Subdivision	Improve operating efficiency and capacity	4.0	Railroad plus state and local sources
Plant City Siding 8,000 ft of siding	Extend siding by 8,000 feet	Improve operating efficiency, capacity and safety and security	5.8	Railroad plus state and local sources
TSC Plant City Sub to SE Welcome	Upgrade track on the Plant City Subdivision	Improve operating efficiency, capacity and safety	5.4	Railroad plus state and local sources
Edison Yard extend and upgrade track	Extend yard track and upgrade	Improve operating efficiency, capacity and safety	3.2	Railroad plus state and local sources
Port Everglades Auto Ramp	Enlarge lot for import/export autos and add 2nd gate	Improve operating efficiency, capacity and safety and security	15.0	Railroad plus state and local sources
Bridge Rebuilds for Improved Velocity, Capacity & Weight	Harden bridges to increase efficiency and capacity	Improve operating efficiency and capacity	12.0	Railroad plus state and local sources

Project Name	Project Description	Project Benefits	Estimated Cost ($ millions)	Potential Funding Source
Bowden crane track #5	Expand crane track 5 by 1,000 feet from 2,000 to 3,000 feet	Improve operating efficiency, capacity and safety	2.0	Railroad plus state and local sources
Bowden crane track #4	Extend crane track #4 to the north by 800 feet	Improve operating efficiency, capacity and safety and security	1.0	Railroad plus state and local sources
Bowden crane track #3	Two for one track adding 2,000 feet of additional track space	Improve operating efficiency and safety	2.0	Railroad plus state and local sources
Bowden Intermodal Entrance	Relocate Bowden TOFC entrance off of Gordon Street to align with a public road and traffic light	Improve operating efficiency, capacity and safety	5.0	Railroad plus state and local sources
Medley Lead Siding	1,900 run around track and lengthen to 6,500 ft siding	Improve safety and security	1.662	Railroad plus state and local sources
Hialeah Double Track New Yard Lead	Add 1,800 feet and direct access to auto yard	Improve operating efficiency, capacity and safety and security	0.510	Port plus State and local sources
Hialeah Yard Improvements (Automated Gate)	Automated gate systems for reduced truck delay entering/departing	Improve operating efficiency, capacity and safety	2.0	Port plus State and local sources
Andrews Avenue Yard Improvements	Install tracks for a new transload facility	Improve operating efficiency, capacity and safety	3.268	Port plus State and local sources
Upgrade and Replace Light Weight Rail	Install 135-pound industry standard carbon continuously welded rail	Improve operating efficiency, capacity and safety and security	18.129	Port plus State and local sources
Expand or Build New Cocoa Intermodal Yard	Relocate facility	Improve operating efficiency, capacity and safety	30.0	Port plus State and local sources
Double Track Gifford to Indrio	A-line upgrade and extension project that involves double track from Gifford to Indigo	Improve operating efficiency, capacity and safety and security	39.790	Port plus State and local sources
Pineda Turnout	Relocate North Pineda turnout north to MP 178.8 and construct two additional miles of track	Improve operating efficiency, capacity and safety	5.043	Port plus State and local sources
LNG Fueling Facility Enhancements	LNG fueling facility enhancements at yards	Improve operating efficiency, capacity and safety	2.0	Port plus State and local sources
Hialeah North-end Auto Ramp	Add additional track redesign parking bays, and add additional lighting	Improve operating efficiency, capacity and safety	1.207	Port plus State and local sources
Hialeah Diesel Storage Tank Repurpose	Tear down and remove unneeded storage tank for repurposing	Improve operating efficiency, capacity and safety and security	0.410	Port plus State and local sources
Hialeah Auto Ramp Lead	Connect south lead to north end auto ramp	Improve operating efficiency, capacity and safety and security	0.500	Port plus State and local sources
Hialeah Staging Drainage	Drainage solution that would allow pavement expansion to accommodate 53' units	Improve operating efficiency and capacity	0.733	Port plus State and local sources

Project Name	Project Description	Project Benefits	Estimated Cost ($ millions)	Potential Funding Source
Hialeah Triangle Leveling	Clear out and level for future repurposed use	Improve operating efficiency, capacity and safety and security	0.123	Port plus State and local sources
Highway-rail crossing improvements	Improvements to 140 to 180 crossings statewide	Enhance safety at crossings	36.0	State sources
		Short-Range Freight Total	**$266.6**	

Table A-2: Long-Range (5-25 Years) Proposed Rail Investment Program

Project Name	Project Description	Project Benefits	Estimated Cost ($ millions)	Potential Funding Source
FEC auto handling facility	Construct new facility replacing Hialeah facility	Enhance ability to attract and retain traffic	$50.0	TBD
FCEN track rehab	Install new welded rail	Improve operating efficiency, capacity and safety	$7.0	TBD
FMID track rehab	Installation of 28,000 crossties, 30 miles of welded rail, and 33 miles of surfacing	Improve operating efficiency, capacity and safety	$18.5	TBD
FNOC track rehab	Installation of 60,000 crossties, 35 miles of welded rail, and 87 miles of surfacing	Improve operating efficiency, capacity and safety	$24.0	TBD
GFRR bridge and track rehab	Rehabilitation of nine bridges, installation of 28,000 ties, track surfacing, and crossing improvements	Improve operating efficiency, capacity and safety	$17.3	TBD
SGLR bridge and track rehab	Bridge and track improvements	Improve operating efficiency, capacity and safety	$4.0 - $10.0	TBD
Highway-rail crossings	Crossing improvements to between 560 and 720 crossings statewide	Enhance safety at crossings	$120.0	TEB
Grade Separations	Priority grade separations as identified in the Railroad Highway Crossing Inventory tool, and refined with stakeholders	Improve operating efficiency, capacity and safety	TBD	TBD
New rail	S Line to A Line (Plant City)	Improve operating efficiency, capacity and safety	TBD	TBD
New rail	SV Line to A Line (Plant City)	Improve operating efficiency, capacity and safety	TBD	TBD
CSX / Seminole Gulf Railway	Arcadia, DeSoto County to Lee County	Improve operating efficiency, capacity and safety	TBD	TBD
CSX Transportation	Build bridge over railroad tracks at SR-60 / Hopewell	Improve operating efficiency, capacity and safety	TBD	TBD
CSX Transportation	Rehabilitate Passenger Rail for 95 miles from Collier -Lee Co. border to Ona, Hardee Co.	Improve operating efficiency, capacity and safety	TBD	TBD
CSX Transportation	Build bridge over railroad at SR-50 (Ridge Manor)	Improve operating efficiency, capacity and safety	TBD	TBD
Dolphin/East-West Extension	Build a heavy rail (Tri-Rail) corridor from the MIC to FIU's Sweetwater Campus	Improve operating efficiency, capacity and safety	TBD	TBD
East/West Corridor Extension	Develop a heavy rail line between FIU and the MIC at MIA	Improve operating efficiency, capacity and safety	TBD	TBD
SGLR Infrastructure Improvements - PH I	The project will upgrade SGLR track for a total distance of 14 miles	Improve operating efficiency, capacity and safety	TBD	TBD
SGLR Infrastructure Improvements - PH II	Project to continue upgrading and expanding the rail infrastructure in Lee County	Improve operating efficiency, capacity and safety	TBD	TBD

Project Name	Project Description	Project Benefits	Estimated Cost ($ millions)	Potential Funding Source
Rail Study	Study the feasibility of a rail connection from RSW to the Florida Fuel Connection Petroleum Products Logistics and Distribution Facility in Clewiston	Improve operating efficiency, capacity and safety	TBD	TBD
Lee County Rail Intermodal	A rail intermodal yard for transloading and storing petroleum products	Improve operating efficiency, capacity and safety	TBD	TBD
Enhanced crosswalk	Maine Ave at Crystal Lake Acres Dr	Enhance safety at crossings	TBD	TBD
Enhanced crosswalk	Maine Ave at Reynolds Rd	Enhance safety at crossings	TBD	TBD
Rail Line Expansion	Sebring Airport	Improve operating efficiency, capacity and safety	TBD	TBD
		Long-Range Freight Total	**$190.8 - $196.8**	

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APPENDIX B: PASSENGER RAIL SERVICE AND INVESTMENT PROGRAM

Table B-1: Short-Range (1-4 Years) Rail Investment Program

Project Name	Project Description	Project Benefits	Estimated Cost ($ millions)	Potential Funding Source
Amtrak Station Improvements	Upgrade Amtrak stations in Florida for ADA compliance and a state of good repair	Improved safety, comfort and convenience for Amtrak riders	$20.0	Railroad plus state and local sources
SunRail Phase 2 Expansion North	Expand of service area to Deland in north	Enhanced mobility as SunRail serves more riders	$68.0	Railroad plus state and local sources
SunRail Additional Vehicles	Add more vehicles to support operations over larger area	Enhanced mobility as SunRail serves more riders	$50.0	Railroad plus state and local sources
SunRail Vehicle Maintenance Facility	Build new facility to free SunRail from dependence on Amtrak maintenance	Enhanced operating flexibility	$50.0	Railroad plus state and local sources
SunRail PTC Implementation	Install PTC on the SunRail service territory	Enhance safety	$20.0	Railroad plus state and local sources
SunRail Safety Upgrades	Improve facilities to enhance safety for SunRail riders and personnel.	Enhance safety	$8.0	Railroad plus state and local sources
Short-Range Passenger Total			**$216.0**	

Table B-2: Long-Range (5-25 Years) Rail Investment Program

Project Name	Project Description	Project Benefits	Estimated Cost ($ millions)	Potential Funding Source
Amtrak Station Improvements	Upgrade Amtrak stations in Florida for ADA compliance and a state of good repair	Improved safety, comfort and convenience for Amtrak riders	$10.0	Railroad plus state and local sources
SunRail Phase 3 Expansion	Expand of service area to Orlando International Airport	Enhanced mobility as SunRail serves more riders	$200.0	Railroad plus state and local sources
Upper Legacy Trail Expansion - Sarasota	Statewide SUNTrail Network for Manatee Sarasota Charlotte Lee and Collier counties		TBD	TBD
SunRail Extension III	Extension of SunRail to Haines City		TBD	TBD
SunRail Extension IV	Extension of SunRail to Auburndale		TBD	TBD
High Speed Rail	Extension of SunRail to Lakeland		TBD	TBD
CSX Transportation	High Speed Rail along I-4		TBD	TBD
		Long-Range Passenger Total	**$210.0**	

APPENDIX C: CLASS I AND II RAILROAD DATA SHEETS

Table C-1: Achan Subdivision

Data	Achan Subdivision
Division	Jacksonville
Line Segment ID	AC
Owner	CSX
Operator	CSX
Line Heritage	ACL
Subdivision Route / Mileage	South Mulberry – Bradley, 7.1 miles
FRA Track Class	Class 2
Number of Main Tracks	One
Maximum Authorized Speed Freight	25 mph
Maximum Authorized Speed Passenger	NA
Wayside Signals	No
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Plate F, Double Stack (10'02" ATR)
Current Traffic Density (2014)	0 – 5 MGT
Average Number of Trains per Day	0 – 3
Commodities Transported	Phosphate, Chemicals, Fertilizer, General Merchandise
On-Line Facilities	No
Interchanges	No

Table C-2: Auburndale Subdivision

Data	Auburndale Subdivision
Division	Jacksonville
Line Segment ID	AR
Owner	CSX
Operator	CSX
Line Heritage	SAL
Subdivision Route / Mileage	Auburndale – Delta, 137.4 miles
FRA Track Class	Class 4
Number of Main Tracks	One
Maximum Authorized Speed Freight	60 mph
Maximum Authorized Speed Passenger	79 mph
Wayside Signals	Yes
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Plate F, Double Stack (20'02" ATR)
Current Traffic Density (2014)	5 – 10 MGT
Average Number of Trains per Day	3 – 5
Commodities Transported	Aggregates, Automobiles, Coal, General Merchandise and hosts Amtrak
On-Line Facilities	TDSI Automobile facility – Palm Center (Jupiter)
Interchanges	Winter Haven, West Lake Wales – FMID, DeSoto City, SCFX via 5.5 miles of CSX trackage rights

Table C-3: Bainbridge Subdivision

Data	Bainbridge Subdivision
Division	Jacksonville
Line Segment ID	B9
Owner	CSX
Operator	CSX
Line Heritage	SAL
Subdivision Route / Mileage	Bainbridge, GA – Tallahassee, 38.2 miles, 21.4 in Florida
FRA Track Class	Class 2
Number of Main Tracks	One
Maximum Authorized Speed Freight	25 mph
Maximum Authorized Speed Passenger	NA
Wayside Signals	No
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Plate F, Double Stack (10'02" ATR)
Current Traffic Density (2014)	0 – 5 MGT
Average Number of Trains per Day	0 – 3
Commodities Transported	General Merchandise
On-Line Facilities	No
Interchanges	No

Table C-4: Bone Valley Subdivision

Data	Bone Valley Subdivision
Division	Jacksonville
Line Segment ID	BV
Owner	CSX
Operator	CSX
Line Heritage	ACL
Subdivision Route / Mileage	13.8
FRA Track Class	Class 2
Number of Main Tracks	One
Maximum Authorized Speed Freight	25 mph
Maximum Authorized Speed Passenger	NA
Wayside Signals	No
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Plate F, Double Stack (10'02" ATR)
Current Traffic Density (2014)	0 – 10 MGT
Average Number of Trains per Day	0 – 5
Commodities Transported	Phosphate, Fertilizers, Chemicals
On-Line Facilities	No
Interchanges	No

Table C-5: Brewster Subdivision

Data	Brewster Subdivision
Division	Jacksonville
Line Segment ID	B7
Owner	CSX
Operator	CSX
Line Heritage	SAL
Subdivision Route / Mileage	Edison – Arcadia, 47.2 miles
FRA Track Class	Class 3
Number of Main Tracks	One
Maximum Authorized Speed Freight	40 mph
Maximum Authorized Speed Passenger	NA
Wayside Signals	No
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Plate F, Double Stack (20'02" ATR)
Current Traffic Density (2014)	0 – 10 MGT
Average Number of Trains per Day	0 – 5
Commodities Transported	Phosphate, Fertilizer, Chemicals and General Merchandise
On-Line Facilities	Hardee Yard
Interchanges	Arcadia - SGLR

Table C-6: Brooker Subdivision

Data	Brooker Subdivision
Division	Jacksonville
Line Segment ID	XB
Owner	CSX
Operator	CSX
Line Heritage	SAL
Subdivision Route / Mileage	Starke – Newberry, 39.6 miles
FRA Track Class	Class 3
Number of Main Tracks	One
Maximum Authorized Speed Freight	40 mph
Maximum Authorized Speed Passenger	NA
Wayside Signals	No
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Plate F, Double Stack (20'02" ATR)
Current Traffic Density (2014)	0 – 5 MGT
Average Number of Trains per Day	0 – 3
Commodities Transported	General Merchandise
On-Line Facilities	No
Interchanges	Newberry - FNOR

Table C-7: Brooksville Subdivision

Data	Brooksville Subdivision
Division	Jacksonville
Line Segment ID	BRO
Owner	CSX
Operator	CSX
Line Heritage	ACL
Subdivision Route / Mileage	Broco – Sulphur Springs, 49.1
FRA Track Class	Class 3
Number of Main Tracks	One
Maximum Authorized Speed Freight	35 mph
Maximum Authorized Speed Passenger	NA
Wayside Signals	No
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Plate F, Double Stack (20'02" ATR)
Current Traffic Density (2014)	0 – 5 MGT
Average Number of Trains per Day	0 – 3
Commodities Transported	Aggregates, Coal, General Merchandise
On-Line Facilities	Rock Yard (N. Brooksville)
Interchanges	No

Table C-8: Callahan Subdivision

Data	Callahan Subdivision
Division	Jacksonville
Line Segment ID	Z1
Owner	CSX
Operator	CSX
Line Heritage	SAL
Subdivision Route / Mileage	Callahan – Baldwin, 20.0 miles
FRA Track Class	Class 4
Number of Main Tracks	One
Maximum Authorized Speed Freight	60 mph
Maximum Authorized Speed Passenger	79 mph
Wayside Signals	Yes
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Plate F, Double Stack (20'02" ATR)
Current Traffic Density (2014)	40 – 80 MGT
Average Number of Trains per Day	20 – 40
Commodities Transported	Everything
On-Line Facilities	No
Interchanges	No

Table C-9: Carters Subdivision

Data	Carters Subdivision
Division	Jacksonville
Line Segment ID	CO
Owner	CSX
Operator	CSX
Line Heritage	ACL
Subdivision Route / Mileage	Auburndale – South Lakeland, 11.0 miles
FRA Track Class	Class 4
Number of Main Tracks	One
Maximum Authorized Speed Freight	60 mph
Maximum Authorized Speed Passenger	79 mph
Wayside Signals	Yes
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Plate F, Double Stack (20'02" ATR)
Current Traffic Density (2014)	5 – 40 MGT
Average Number of Trains per Day	3 – 20
Commodities Transported	Coal, General Merchandise and hosts Amtrak
On-Line Facilities	No
Interchanges	No

Table C-10: CH Subdivision

Data	Ch Subdivision
Division	Jacksonville
Line Segment ID	BT
Owner	CSX
Operator	CSX
Line Heritage	ACL
Subdivision Route / Mileage	Lakeland – EOT, 3.7 miles
FRA Track Class	Class 1
Number of Main Tracks	One
Maximum Authorized Speed Freight	10 mph
Maximum Authorized Speed Passenger	NA
Wayside Signals	No
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Plate F, Double Stack (20'02" ATR)
Current Traffic Density (2014)	0 – 10 MGT
Average Number of Trains per Day	0 – 5
Commodities Transported	Not Known
On-Line Facilities	No
Interchanges	No

Table C-11: Clearwater Subdivision

Data	Clearwater Subdivision
Division	Jacksonville
Line Segment ID	ZZ
Owner	CSX
Operator	CSX
Line Heritage	ACL
Subdivision Route / Mileage	Gary – St. Petersburg, 48.6 miles
FRA Track Class	Class 2
Number of Main Tracks	One
Maximum Authorized Speed Freight	25 mph
Maximum Authorized Speed Passenger	NA
Wayside Signals	No
Maximum Allowable Gross Weight	Less than 286,000 lbs.
Clearances	AAR Plate F, Double Stack (20'02" ATR)
Current Traffic Density (2014)	0 – 5 MGT
Average Number of Trains per Day	0 – 3
Commodities Transported	General Merchandise
On-Line Facilities	Yard – St. Petersburg
Interchanges	No

Table C-12: Jacksonville Subdivision

Data	Deerhaven Subdivision
Division	Jacksonville
Line Segment ID	DV
Owner	CSX
Operator	CSX
Line Heritage	ACL
Subdivision Route / Mileage	Burnetts Lake – Gainesville, 14.0 miles
FRA Track Class	Class 3
Number of Main Tracks	One
Maximum Authorized Speed Freight	35 mph
Maximum Authorized Speed Passenger	NA
Wayside Signals	No
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Plate F, Double Stack (20'02" ATR)
Current Traffic Density (2014)	0 – 5 MGT
Average Number of Trains per Day	0 – 3
Commodities Transported	Coal, Aggregates, General Merchandise
On-Line Facilities	No
Interchanges	No

Table C-13: Homestead Subdivision

Data	Homestead Subdivision
Division	Jacksonville
Line Segment ID	HS
Owner	CSX
Operator	CSX
Line Heritage	SAL
Subdivision Route / Mileage	Hialeah – Homestead, 30.8 miles
FRA Track Class	Class 2
Number of Main Tracks	One
Maximum Authorized Speed Freight	25 mph
Maximum Authorized Speed Passenger	NA
Wayside Signals	No
Maximum Allowable Gross Weight	Less than 286,000 lbs.
Clearances	AAR Plate F, Double Stack (20'02" ATR)
Current Traffic Density (2014)	0 – 5 MGT
Average Number of Trains per Day	0 – 3
Commodities Transported	Aggregates, Cement, General Merchandise
On-Line Facilities	No
Interchanges	FEC - Oleander

Table C-14: Jacksonville Terminal Subdivision

Data	Jacksonville Terminal Subdivision
Division	Jacksonville
Line Segment ID	JT (A Line) and JT (S Line)
Owner	CSX
Operator	CSX
Line Heritage	ACL/SAL
Subdivision Route / Mileage	Dinsmore – St. Johns, 13.0 (A Line) Baldwin – Beaver Street, 18.1 (S Line)
FRA Track Class	Class 4
Number of Main Tracks	24.9 miles single, 5.9 miles double
Maximum Authorized Speed Freight	60 mph
Maximum Authorized Speed Passenger	79 mph
Wayside Signals	Yes
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Plate F, Double Stack (20'02" ATR)
Current Traffic Density (2014)	0 – 40 MGT
Average Number of Trains per Day	0 – 20
Commodities Transported	Intermodal, General Merchandise, hosts Amtrak trains
On-Line Facilities	Duval Yard (intermodal), Moncrief Yard, Transflow Terminal
Interchanges	FEC and NS – Beaver Street; TTR - Jacksonville

Table C-15: Kingsland Subdivision

Data	Kingsland Subdivision
Division	Jacksonville
Line Segment ID	KI
Owner	CSX
Operator	CSX
Line Heritage	SAL
Subdivision Route / Mileage	Grand Jct. – Yulee, 20.9 miles
FRA Track Class	Class 3
Number of Main Tracks	One
Maximum Authorized Speed Freight	40 mph
Maximum Authorized Speed Passenger	NA
Wayside Signals	No
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Plate F, Double Stack (20'02" ATR)
Current Traffic Density (2014)	0 – 10 MGT
Average Number of Trains per Day	0 – 5
Commodities Transported	Pulp and Paper, Chemicals, Wood Products, Food Products, Grains, Coal, Automobile, Intermodal, General Merchandise
On-Line Facilities	Yard – Yulee, spur to Jacksonville Port Authority's Dames Point Terminal, BIDS Terminal
Interchanges	FCRD - Yulee

Table C-16: Lakeland Subdivision

Data	Lakeland Subdivision
Division	Jacksonville
Line Segment ID	LK
Owner	CSX
Operator	CSX
Line Heritage	ACL
Subdivision Route / Mileage	South Lakeland – South End Mango, 21.9 miles Winston Wye – Prairie, 8.3 miles
FRA Track Class	Class 4
Number of Main Tracks	One
Maximum Authorized Speed Freight	60 mph
Maximum Authorized Speed Passenger	79 mph
Wayside Signals	Yes
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Plate F, Double Stack (20'02" ATR)
Current Traffic Density (2014)	5 – 40 MGT
Average Number of Trains per Day	3 – 20
Commodities Transported	General Merchandise
On-Line Facilities	Winston Yard – Lakeland, Yeoman Yard - Tampa
Interchanges	No

Table C-17: Main Line Subdivision

Data	Main Line Subdivision
Division	Main Line
Line Segment ID	Main Line
Owner	FEC
Operator	FEC
Line Heritage	FEC
Subdivision Route / Mileage	Jacksonville – Hialeah Yard, 351 miles
FRA Track Class	Class 4
Number of Main Tracks	Two, 22 miles; one, 329 miles with 26 sidings, avg. length 31 miles spaced on avg. 12.7 miles
Maximum Authorized Speed Freight	60 mph
Maximum Authorized Speed Passenger	NA
Wayside Signals	Yes and cab signals
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Plate F, Double Stack Capability
Current Traffic Density	28 MGT
Average Number of Trains per Day	14
Commodities Transported	Intermodal, Aggregates, Automobiles, General Merchandise
On-Line Facilities	Yards – Jacksonville (Bowden), New Smyrna Beach, Ft. Pierce and Miami (Hialeah); Intermodal facilities – Jacksonville, Ft. Pierce, West Palm Beach, Ft. Lauderdale and Hialeah; Transload – South Daytona, City Point, Cocoa, Ft. Pierce, Riviera Beach, West Palm Beach, Pompano Beach, Ft. Lauderdale, Miami (2); Rock Distribution Centers – Miami, Ft. Pierce, Cocoa, Daytona, St. Augustine and Jacksonville; Automobiles – Miami (Hialeah)
Interchanges	Jacksonville – CSX and NS; Ft. Pierce – SCFX; West Palm Beach – CSX and Port of West Palm Beach railroad.

Table C-18: Miami Subdivision

Data	Miami Subdivision
Division	Jacksonville
Line Segment ID	MI
Owner	State of Florida – South Florida Rail Corridor
Operator	CSX – Freight (by agreement); TriRail – Commuter: Amtrak – Long Distance Passenger
Line Heritage	SAL
Subdivision Route / Mileage	S.E. Delta – Miami Airport, 93.5 miles
FRA Track Class	Class 4
Number of Main Tracks	Two
Maximum Authorized Speed Freight	60 mph
Maximum Authorized Speed Passenger	79 mph
Wayside Signals	Yes
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Plate F, Double Stack (20'02" ATR)
Current Freight Traffic Density (2014)	0 – 40 MGT
Average Number of Trains per Day	0 – 20
Commodities Transported	Aggregates, General Merchandise, Amtrak and TriRail also use track
On-Line Facilities	Hialeah Yard
Interchanges	West Palm Beach -- FEC

Table C-19: Nahunta Subdivision

Data	Nahunta Subdivision
Division	Jacksonville Division
Line Segment ID	NH
Owner	CSX
Operator	CSX
Line Heritage	ACL
Subdivision Route / Mileage	South Ogeechee (west of Savannah, GA) – Dinsmore, FL, 125.2 miles, 20.1 in Florida
FRA Track Class	Class 5
Number of Main Tracks	One and two main tracks with sidings, two in Florida
Maximum Authorized Speed Freight	60 mph for general freight; 70 mph for intermodal
Maximum Authorized Speed Passenger	79 mph
Wayside Signals	Yes
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Plate F, Double Stack (20'02" ATR)
Current Traffic Density (2014)	40 – 100+ MGT
Average Number of Trains per Day	28.1 (Burroughs-Jesup), 15.1 (Jesup-Folkston)
Commodities Transported	Intermodal, Coal, Automotive, and General Merchandise and hosts Amtrak
On-Line Facilities	No
Interchanges	No

Table C-20: Navair District Subdivision

Data	Navair District Subdivision
Division	Georgia
Line Segment ID	B
Owner	NS
Operator	NS
Line Heritage	SOU
Subdivision Route / Mileage	Valdosta, GA – Navair, FL; 65 miles (47.3 miles in FL)
FRA Track Class	Class 4
Number of Main Tracks	One
Maximum Authorized Speed Freight	49 mph
Maximum Authorized Speed Passenger	NA
Wayside Signals	No
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	Double Stack (20'02" ATR)
Current Traffic Density	1 – 5 MGT
Average Number of Trains per Day	< 3
Commodities Transported	Phosphate, Chemicals, General Merchandise
On-Line Facilities	No
Interchanges	NS – Plant City

Table C-21: P&A Subdivision

Data	P&A Subdivision
Division	Jacksonville
Line Segment ID	P5
Owner	CSX
Operator	CSX
Line Heritage	L&N/SAL
Subdivision Route / Mileage	Chattahoochee – Pensacola, 166.5 miles
FRA Track Class	Class 4
Number of Main Tracks	One
Maximum Authorized Speed Freight	49 mph
Maximum Authorized Speed Passenger	NA
Wayside Signals	No
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Plate F, Double Stack (20'02" ATR)
Current Traffic Density (2014)	10 – 20 MGT
Average Number of Trains per Day	5 – 10
Commodities Transported	Coal, Wood Products, Farm Products, Chemicals
On-Line Facilities	Goulding Yard – Pensacola
Interchanges	BAYL - Cottondale

Table C-22: PD Subdivision

Data	Pd Subdivision
Division	Atlanta
Line Segment ID	PD
Owner	CSX
Operator	CSX
Line Heritage	L&N
Subdivision Route / Mileage	Pensacola – Flomaton, AL, 41.0, 40.8 in Florida
FRA Track Class	Class 4
Number of Main Tracks	One
Maximum Authorized Speed Freight	49 mph
Maximum Authorized Speed Passenger	59 mph
Wayside Signals	No
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Plate F, Double Stack (20'02" ATR)
Current Traffic Density (2014)	10 – 20 MGT
Average Number of Trains per Day	5 – 10
Commodities Transported	Forest Products, Wood Products, Chemicals, Coal, General Merchandise
On-Line Facilities	No
Interchanges	Cantonment, AGR

Table C-23: Palmetto Subdivision

Data	Palmetto Subdivision
Division	Jacksonville
Line Segment ID	PT
Owner	CSX
Operator	CSX
Line Heritage	ACL/SAL
Subdivision Route / Mileage	East Tampa – Oneco, 34.2 miles
FRA Track Class	Class 3
Number of Main Tracks	One
Maximum Authorized Speed Freight	40 mph
Maximum Authorized Speed Passenger	NA
Wayside Signals	No
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Plate F, Double Stack (20'02" ATR)
Current Traffic Density (2014)	0 – 5 MGT
Average Number of Trains per Day	0 – 3
Commodities Transported	Food Products, Chemicals (including Fertilizers), Coal, Phosphate, General Merchandise
On-Line Facilities	Yard – Port Manatee; lead tracks to public and private Tampa Bay marine terminals
Interchanges	Port Manatee -- Port Manatee Railroad

Table C-24: Plant City Subdivision

Data	Plant City Subdivision
Division	Jacksonville
Line Segment ID	PL
Owner	CSX
Operator	CSX
Line Heritage	SAL
Subdivision Route / Mileage	Plant City – Welcome, 11.4 miles
FRA Track Class	Class 3
Number of Main Tracks	One
Maximum Authorized Speed Freight	40 mph
Maximum Authorized Speed Passenger	NA
Wayside Signals	No
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Plate F, Double Stack (20'02" ATR)
Current Traffic Density (2014)	0 – 10 MGT
Average Number of Trains per Day	0 – 5
Commodities Transported	Phosphate, Chemicals, Fertilizer
On-Line Facilities	No
Interchanges	No

Table C-25: Sanford Subdivision

Data	Sanford Subdivision
Division	Jacksonville
Line Segment ID	SF
Owner	State of Florida
Operator	CSX—Freight (by agreement); SunRail – Commuter: Amtrak – Long Distance Passenger
Line Heritage	ACL
Subdivision Route / Mileage	St. Johns – Auburndale, 192.7 miles, Operations Deland – Poinciana, 61.5 miles under contract over SunRail
FRA Track Class	Class 4
Number of Main Tracks	One
Maximum Authorized Speed Freight	65 mph
Maximum Authorized Speed Passenger	75 mph
Wayside Signals	Yes
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Plate F, Double Stack (20'02" ATR)
Current Traffic Density (2014)	0 – 10 MGT
Average Number of Trains per Day	0 – 5
Commodities Transported	Coal, General Merchandise
On-Line Facilities	Taft Yard – Orlando
Interchanges	Taft Yard – FCEN via CSX from Winter Park

Table C-26: Tallahassee Subdivision

Data	Tallahassee Subdivision
Division	Jacksonville
Line Segment ID	TL
Owner	CSX
Operator	CSX
Line Heritage	SAL
Subdivision Route / Mileage	Baldwin – Chattahoochee, 189.6 miles
FRA Track Class	Class 4
Number of Main Tracks	One
Maximum Authorized Speed Freight	50 mph, 60 mph intermodal
Maximum Authorized Speed Passenger	60 mph
Wayside Signals	Yes
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Plate F, Double Stack (20'02" ATR)
Current Traffic Density (2014)	10 – 20 MGT
Average Number of Trains per Day	5 – 10
Commodities Transported	Agricultural Products, Coal, Forest Products, Feed, Plastic, and General Merchandise
On-Line Facilities	Yard – Tallahassee, Yard – Chattahoochee
Interchanges	Lake City – N; Chattahoochee – AN

Table C-27: Tampa Terminal Subdivision

Data	Tampa Terminal Subdivision
Division	Jacksonville
Line Segment ID	TP
Owner	CSX
Operator	CSX
Line Heritage	ACL
Subdivision Route / Mileage	1. YN – Gary, 4.0 miles 2. Mango – Tampa, 8.1 miles Total = 12.1 miles
FRA Track Class	Varies from Class I to Class 4
Number of Main Tracks	One
Maximum Authorized Speed Freight	1. 10 mph 2. 60 mph
Maximum Authorized Speed Passenger	1. NA 2. 79 mph
Wayside Signals	1. No 2. Yes
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Plate F, Double Stack (20'02" ATR)
Current Traffic Density (2014)	0 – 10 MGT
Average Number of Trains per Day	0 – 5
Commodities Transported	Phosphate, Coal, Fertilizers, General Merchandise, hosts Amtrak on Segment 2
On-Line Facilities	TransFlow -- Port Tampa, Uceta Yard, Tampa Union Station lead tracks to port terminals
Interchanges	No

Table C-28: Valdosta District Subdivision

Data	Valdosta District Subdivision
Division	Georgia
Line Segment ID	G
Owner	NS
Operator	NS
Line Heritage	SOU
Subdivision Route / Mileage	Langdale Yard (Valdosta, GA) – Jacksonville, FL; 108.2 miles (52.3 miles in FL)
FRA Track Class	Class 4
Number of Main Tracks	One / Two main tracks with passing sidings
Maximum Authorized Speed Freight	60 mph for intermodal; 50 mph carload freight
Maximum Authorized Speed Passenger	NA
Wayside Signals	Yes
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	Double Stack (20'02" ATR)
Current Traffic Density	19 MGT
Average Number of Trains per Day	9
Commodities Transported	Intermodal, Automobiles, General Merchandise
On-Line Facilities	Jacksonville – Simpson Yard, Triple Crown, COFC/TOFC, Automobile, and TBT facilities; Miami - TBT (on FEC), Titusville (on FEC) – Automobile, COFC/TOFC
Interchanges	Jacksonville - CSX, FEC and TTR

Table C-29: Valrico Subdivision

Data	Valrico Subdivision
Division	Jacksonville
Line Segment ID	VL
Owner	CSX
Operator	CSX
Line Heritage	SAL
Subdivision Route / Mileage	Valrico – Bowling Green, 47 miles
FRA Track Class	Class 3
Number of Main Tracks	One
Maximum Authorized Speed Freight	35 mph
Maximum Authorized Speed Passenger	NA
Wayside Signals	No, except 4 miles involving crossing/connection with other subdivisions
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	Plate F, Double Stack (20'02" ATR)
Current Traffic Density (2014)	0 – 10 MGT
Average Number of Trains per Day	0 – 5
Commodities Transported	Phosphate, Chemicals, Fertilizer
On-Line Facilities	No
Interchanges	No

Table C-30: VITIS Subdivision

Data	Vitis Subdivision
Division	Jacksonville
Line Segment ID	VI
Owner	CSX
Operator	CSX
Line Heritage	ACL
Subdivision Route / Mileage	Vitis – Lakeland, 19.7 miles
FRA Track Class	Class 4
Number of Main Tracks	One
Maximum Authorized Speed Freight	60 mph
Maximum Authorized Speed Passenger	79 mph
Wayside Signals	Yes
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Plate F, Double Stack (20'02" ATR)
Current Traffic Density (2014)	10 – 40 MGT
Average Number of Trains per Day	5 – 20
Commodities Transported	Intermodal, Phosphate, Chemicals, Fertilizers, Coal, General Merchandise
On-Line Facilities	No
Interchanges	No

Table C-31: Wildwood Subdivision

Data	Wildwood Subdivision
Division	Jacksonville
Line Segment ID	BL
Owner	CSX
Operator	CSX
Line Heritage	SCL/ACL
Subdivision Route / Mileage	Baldwin – Zephyrhills, 155.7 miles
FRA Track Class	Class 4
Number of Main Tracks	Two, 28.7 miles; One, 127 miles
Maximum Authorized Speed Freight	60 mph
Maximum Authorized Speed Passenger	79 mph
Wayside Signals	Yes
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Plate F, Double Stack (20'02" ATR)
Current Traffic Density (2014)	20 – 50 MGT
Average Number of Trains per Day	10 – 25
Commodities Transported	Everything
On-Line Facilities	Baldwin Yard, Wildwood Yard
Interchanges	Ocala - FNOR

Table C-32: Yeoman Subdivision

Data	Yeoman Subdivision
Division	Jacksonville
Line Segment ID	YE
Owner	CSX
Operator	CSX
Line Heritage	SAL
Subdivision Route / Mileage	Zephyrhills – YN, 31.2 miles
FRA Track Class	Class 4
Number of Main Tracks	One
Maximum Authorized Speed Freight	50 mph
Maximum Authorized Speed Passenger	50 mph
Wayside Signals	Yes
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	AAR Plate F, Double Stack (20'02" ATR)
Current Traffic Density (2014)	10 – 40 MGT
Average Number of Trains per Day	5 – 20
Commodities Transported	Phosphate, Chemicals, Fertilizers
On-Line Facilities	Plant City Yard
Interchanges	No

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APPENDIX D: CLASS III RAILROAD DATA SHEETS

Table D-1: Alabama and Gulf Coast Railways

Data	Alabama and Gulf Coast Railway	
Alpha Code	AGR	
Owner/Operator	Alabama and Gulf Coast Railway	
Parent Company	Genesee and Wyoming, Inc.	
Contact	Jerry Vest	
Phone	412-963-1805	
Email	jvest@gwrr.com	
Company Website	www.gwrr.com	
SERVICE AREA		
Counties	Escambia	
Principal Stations	Pensacola, Goulding, Cantonment	
RAIL TRAFFIC		
Principal Commodities		
Annual Carloadings	16,000[1]	
FLORIDA ROUTE MILES		
Line Segment	AL – FL State Border – Pensacola	Total
Segment Length	45[2]	45
Operated	45	45
Out of Service		
Owned	45	45
Leased		
Trackage Rights		
Line Heritage	SLSF (Frisco)	
TRACK CHARACTERISTICS (as necessary by line segment)		
FRA Track Class		
Operating Speed		
Signal System		
Line density		
Weight Limits	263,000 lbs.	
Clearance Restrictions		
INTERCHANGE POINTS		
Location	Cantonment	
Railroad	CSX	
FACILITIES		
Type	Port	
Location	Pensacola	
IMPROVEMENT NEEDS/PLANS		
Description		
Estimated Costs		

Notes: [1] *2010 Florida Rail System Plan, p. 2-5.*
[2] *AGR total mileage is 438 in 3 states.*

Table D-2: AN Railway

Data	An Railway		
Alpha Code	AN		
Owner/Operator	AN Railway, LLC		
Parent Company	Genesee and Wyoming, Inc.		
Contact	Jerry Vest		
Phone	412-963-1805		
Email	jvest@gwrr.com		
Company Website	www.gwrr.com		
SERVICE AREA			
Counties	Gadsden, Liberty, Franklin, Gulf		
Principal Stations	Chattahoochee, Hosford, Telogia, Port St. Joe		
RAIL TRAFFIC			
Principal Commodities	Chemicals, Forest Product		
Annual Carloadings			
FLORIDA ROUTE MILES			
Line Segment	Chattahoochee – Port St. Joe	Total	
Segment Length	96	96	
Operated	96	96	
Out of Service			
Owned	96	96	
Leased			
Trackage Rights			
Line Heritage	Apalachicola Northern		
TRACK CHARACTERISTICS (as necessary by line segment)			
FRA Track Class			
Operating Speed			
Signal System			
Line density			
Weight Limits	263,000 lbs.		
Clearance Restrictions			
INTERCHANGE POINTS			
Location	Chattahoochee		
Railroad	CSX		
FACILITIES			
Type	Port	Car Storage	Lumber Reload
Location	Port St. Joe		Telogia
IMPROVEMENT NEEDS/PLANS			
Description			
Estimated Costs			

Table D-3: Bay Line Railroad

Data	Bay Line Railroad		
Alpha Code	BAYL		
Owner/Operator	Bay Line Railroad, LLC		
Parent Company	Genesee and Wyoming, Inc.		
Contact	Jerry Vest		
Phone	412-963-1805		
Email	jvest@gwrr.com		
Company Website	www.gwrr.com		
SERVICE AREA			
Counties	Bay, Jackson		
Principal Stations	Cottondale, Lynn Haven, Panama City		
RAIL TRAFFIC			
Principal Commodities	Aggregates, Chemicals, Forest Products, Steel and Scrap		
Annual Carloadings	28,000 (entire RR)[1]		
FLORIDA ROUTE MILES			
Line Segment	Chattahoochee – Port St. Joe	Total	
Segment Length	63	63	
Operated	63	63	
Out of Service			
Owned	63	63	
Leased			
Trackage Rights			
Line Heritage	Atlanta and St. Andrews Bay		
TRACK CHARACTERISTICS (as necessary by line segment)			
FRA Track Class			
Operating Speed			
Signal System			
Line density			
Weight Limits	263,000 lbs.		
Clearance Restrictions			
INTERCHANGE POINTS			
Location	Cottondale		
Railroad	CSX		
FACILITIES			
Type	Port	Yard and locomotive shop	Lumber Reload/Team track
Location	Panama City	Panama City	T Panama City
IMPROVEMENT NEEDS/PLANS			
Description			
Estimated Costs			

Notes: *1 2010 Florida Rail System Plan, p. 2-8.*

Table D-4: First Coast Railroad

Data	First Coast Railroad		
Alpha Code	FCRD		
Owner/Operator	First Coast Railroad		
Parent Company	Genesee and Wyoming, Inc.		
Contact	Jerry Vest		
Phone	412-963-1805		
Email	jvest@gwrr.com		
Company Website	www.gwrr.com		
SERVICE AREA			
Counties			
Principal Stations	Fernandina Beach		
RAIL TRAFFIC			
Principal Commodities	Chemicals, Forest Products		
Annual Carloadings	15,000 (entire RR)[1]		
FLORIDA ROUTE MILES			
Line Segment	GA – FL State Line – Yulee	Yulee – Fernandina Beach	Total
Segment Length	10	12	22
Operated	10	12	22
Out of Service			
Owned			
Leased	10	12	22
Trackage Rights			
Line Heritage	SAL		
TRACK CHARACTERISTICS (as necessary by line segment)			
FRA Track Class			
Operating Speed			
Signal System			
Line density			
Weight Limits	286,000 lbs.		
Clearance Restrictions			
INTERCHANGE POINTS			
Location	Yulee		
Railroad	CSX		
FACILITIES			
Type	Port	Car Storage	
Location	Fernandina		
IMPROVEMENT NEEDS/PLANS			
Description			
Estimated Costs			

Notes: [1] *2010 Florida Rail System, p. 2-9.*

Table D-5: Florida Central Railroad

Data	Florida Central Railroad					
Alpha Code	FCEN					
Owner/Operator	Florida Central					
Parent Company	Pinsly Railroad Company					
Contact	Pete Petree					
Phone	407-880-8500					
Email						
Company Website	www.pinsly.com					
SERVICE AREA						
Counties	Lake, Orange					
Principal Stations	Apopka, Eustis, Mt. Dora, Plymouth, Tavares, Zellwood, Winter Garden, Orlando					
RAIL TRAFFIC						
Principal Commodities	Aggregates, forest products, automobiles chemicals, food and feed products, ores and minerals					
Annual Carloadings						
FLORIDA ROUTE MILES						
Line Segment	Orlando – Tavares	Toronto – Winter Garden	Tavares – Sorrento	Tavares – Umatilla	Orlando – Taft Yard	Total
Segment Length	31	11	11	10	10	73
Operated	31	11	11	10	10	73
Out of Service			6			
Owned	31	11	11	10		63
Leased						
Trackage Rights					10	10
Line Heritage	SAL	ACL	ACL	ACL	ACL	
TRACK CHARACTERISTICS (as necessary by line segment)						
FRA Track Class	Orlando to Tavares Class II, Tavares to Eustis Class II, Eustis to Umatilla Excepted, all else Class I					
Operating Speed	25 & 10					
Signal System	None, dark territory.					
Line density	< 1 MGT					
Weight Limits	286,000 lbs.					
Clearance Restrictions	None					
INTERCHANGE POINTS						
Location	Orlando					
Railroad	CSX (Taft Yard)					
FACILITIES						
Type	Car Storage	Transload & Warehouse	Team Track			
Location	Apopka	Orlando	Plymouth			
IMPROVEMENT NEEDS/PLANS						
Description	Welded rail needs to be installed from Toronto to Winter Garden.					
Estimated Costs	$7,000,000					

Notes: Established 1986 and expanded 1990.
Subject of $18.4 million rehab project involving upgrades and accelerated maintenance and repairs for 57 of the line's 63 miles.
Excursion train operated between Tavares and Mt. Dora by Tavares, Eustis and Gulf RR

Table D-6: Florida Midland Railroad

Data	Florida Midland Railroad			
Alpha Code	FMID			
Owner/Operator	Florida Midland Railroad			
Parent Company	Pinsly Railroad Company			
Contact	Pete Petree			
Phone	407-880-8500			
Email				
Company Website	www.pinsly.com			
SERVICE AREA				
Counties	Polk			
Principal Stations	Gordonville, Eagle Lake, Lake Wales, Frostproof			
RAIL TRAFFIC				
Principal Commodities	Chemicals, Forest Products			
Annual Carloadings	15,000 (entire RR)[1]			
FLORIDA ROUTE MILES				
Line Segment	West Lake Wales – Frostproof	Winter Haven – Gordonville	West Lake Wales – Winter Haven	Total
Segment Length	17	6	10	33
Operated	17	6	10	33
Out of Service				
Owned	17	6		23
Leased				
Trackage Rights			10	10
Line Heritage	SAL	ACL	SAL	
TRACK CHARACTERISTICS (as necessary by line segment)				
FRA Track Class	Excepted			
Operating Speed	10			
Signal System	None, Dark territory			
Line density	< 1 MGT			
Weight Limits	286,000 lbs.			
Clearance Restrictions	None			
INTERCHANGE POINTS				
Location	West Lake Wales	Winter Haven		
Railroad	CSX	CSX		
FACILITIES				
Type	Transload	Transload	Transload	
Location	Eagle Lake – bulk liquid	West Lake Wales – Team track	Bartow Airbase – lay down and warehouse	
IMPROVEMENT NEEDS/PLANS				
Description	Installation of 28,000 crossties, 30 miles of Welded rail, and 33 miles of surfacing is needed.			
Estimated Costs	$18,500,000			
Notes: [1]*Acquired from CSX in 1987.*				

Table D-7: Florida Northern Railroad

Data	Florida Northern Railroad		
Alpha Code	FNOR		
Owner/Operator	Florida Northern Railroad		
Parent Company	Pinsly Railroad Company		
Contact	Pete Petree		
Phone	407-880-8500		
Email			
Company Website	www.pinsly.com		
SERVICE AREA			
Counties	Alachua, Citrus, Levy, Marion		
Principal Stations	Newberry, High Springs, Red Level Jct., Ocala, Lowell		
RAIL TRAFFIC			
Principal Commodities	Chemicals, coal, ores and minerals, steel and scrap, food and food products, forest products		
Annual Carloadings			
FLORIDA ROUTE MILES			
Line Segment	Newberry – Red Level Jct.	Lowell – Candler	Total
Segment Length	63	24	87
Operated	63	24	87
Out of Service			
Owned		24	24
Leased	63		63
Trackage Rights			
Line Heritage	ACL	ACL	
TRACK CHARACTERISTICS (as necessary by line segment)			
FRA Track Class	Newberry to Red Level Jct. Class II, Lowell to Candler Excepted Class		
Operating Speed	25 and 10		
Signal System	None		
Line density	Newberry to Red Level 2 MGT, Lowell to Candler < 1 MGT		
Weight Limits	286,000 lbs.		
Clearance Restrictions	None		
INTERCHANGE POINTS			
Location	Ocala	Newberry	
Railroad	CSX	CSX	
FACILITIES			
Type	Car Storage	Transload	
Location	Various	Silver Spring Shores, Newberry, Williston, Dunnellon – Team tracks	
IMPROVEMENT NEEDS/PLANS			
Description	Installation of 60,000 crossties, 35 miles of welded rail, and 87 mile of surfacing is needed.		
Estimated Costs	$24,000,000		
Notes: *Operates a 2.7-mile industrial track in Ocala.*			

Table D-8: Georgia and Florida Railroad

Data	Georgia And Florida Railroad			
Alpha Code	GFRR			
Owner/Operator	OmniTRAX			
Parent Company	OmniTRAX, Inc.			
Contact	Kendall (Ken) Koff-Sr. Vice President			
Phone	303-398-4529			
Email	kkoff@omnitrax.com			
Company Website	www.omnitrax.com			
SERVICE AREA				
Counties	Madison, Taylor			
Principal Stations	Greenville, Perry ,Foley			
RAIL TRAFFIC				
Principal Commodities	Forest products, pulp and paper products			
Annual Carloadings	20,0000			
FLORIDA ROUTE MILES				
Line Segment	GA-FL State Line – Perry	Perry – Foley	Total	
Segment Length	47	4	51	
Operated	47	4	51	
Out of Service				
Owned	47	4	51	
Leased				
Trackage Rights				
Line Heritage	ACL	LOP&G		
TRACK CHARACTERISTICS (as necessary by line segment)				
FRA Track Class	FRA 1			
Operating Speed	10 MPH			
Signal System	None			
Line density	Less than 5 MGT annually			
Weight Limits	263,000 lbs.			
Clearance Restrictions	None			
INTERCHANGE POINTS				
Location	Thomasville, GA	Foley, FL	Adel, GA	Albany, GA
Railroad	CSX	CSX	NS	NS
FACILITIES				
Type				
Location				
IMPROVEMENT NEEDS/PLANS				
Description	Rehabilitate 9 bridges	Install 28,000 ties, surface track	Renew crossings	
Estimated Costs	$990,000	$4,669,562	$590,000	
Notes: *CSX has trackage rights from Quitman, GA to Foley.*				

Table D-9: South Central Florida Express

Data	South Central Florida Express, Inc.		
Alpha Code	SCXF		
Owner/Operator	South Central Florida Express		
Parent Company	U.S. Sugar		
Contact	Bob Lawson		
Phone	863-902-2714		
Email			
Company Website	www.ussugar.com		
SERVICE AREA			
Counties	Highlands, Glades, Hendry, Palm Beach, Martin		
Principal Stations	Sebring, Lake Placid, More Haven, Clewiston, Southbay, Belle Glade, Pahokee, Canal Point		
RAIL TRAFFIC			
Principal Commodities	Sugar cane and products, fertilizer, plastics		
Annual Carloadings	119,153 (2013)		
FLORIDA ROUTE MILES			
Line Segment	Sebring – Lake Harbor	Lake Harbor – Fort Pierce	Total
Segment Length	97.6	55.4	153
Operated	97.6	55.4	153
Out of Service			
Owned	97.6		97.6
Leased		55.4	55.4
Trackage Rights		55.4 (Haulage Rights)	55.4
Line Heritage	ACL	FEC	
TRACK CHARACTERISTICS (as necessary by line segment)			
FRA Track Class	Class 3 for 82.1 miles – Excepted Track for 15.5 miles		
Operating Speed	40 mph = Class 3 – 10 mph Excepted		
Signal System	DTC		
Line density			
Weight Limits	286,000 lbs.		
Clearance Restrictions	Class 3 for 82.1 miles – Excepted Track for 15.5 miles		
INTERCHANGE POINTS			
Location	Sebring	Ft. Pierce	Jacksonville
Railroad	CSX	FEC	CSX, NS via haulage rights over FEC
FACILITIES			
Type			
Location			
IMPROVEMENT NEEDS/PLANS			
Description	Upgrade 15.5 miles Excepted track to Class 3	Build two new sidings	
Estimated Costs	$21mil. 75% State – 25% Owner – Start in 2015	$5mil. 75% State – 25% Owner – Start in 2016	
Notes: *Connects with U.S. Sugar internal railroad.*			

Table D-10: Seminole Gulf Railway

Data	Seminole Gulf Railway			
Alpha Code	SGLR			
Owner/Operator	Seminole Gulf Railway. L.P.			
Parent Company	n/a			
Contact	Robert Fay			
Phone	239-275-6060			
Email	rfay@floridarail.com			
Company Website	www.semgulf.com			
SERVICE AREA				
Counties	DeSoto, Charlotte, Lee, Manatee, Sarasota, Collier			
Principal Stations	Arcadia, Punta Gorda, North Fort Myers, Ft. Myers, Oneco, Sarasota, Bonita Springs, Naples			
RAIL TRAFFIC				
Principal Commodities	Scrap metal, recycled glass, LP gas, building materials, steel, news-print, plastics, food products, agricultural products			
Annual Carloadings	3,000 and growing (coming out strong from recession era of zero building materials)			
FLORIDA ROUTE MILES				
Line Segment	Arcadia – Vanderbilt Beach	Oneco – Sarasota Area	Total	
Segment Length	79	22	101	
Operated	64	14	78	
Out of Service	15	8	23	
Owned	79	22	101	
Leased				
Trackage Rights				
Line Heritage	ACL	ACL/SAL		
TRACK CHARACTERISTICS (as necessary by line segment)				
FRA Track Class	Class II Fort Myers – Punta Gorda, All other Excepted			
Operating Speed	10 to 30 MPH			
Signal System	None			
Line density	38.5 carloads/mile			
Weight Limits	286,000 lbs.			
Clearance Restrictions	None			
INTERCHANGE POINTS				
Location	Arcadia	Oneco		
Railroad	CSX	CSX		
FACILITIES				
Type	Car storage, 10,000+ feet	Lumber / Wallboard / Aggregates and other transload	Cold Storage for Food	Public unloading
Location	Fort Myers/Arcadia	North Fort Myers and Sarasota and other	North Fort Myers	Arcadia, Punta Gorda, Fort Myers, and Sarasota
IMPROVEMENT NEEDS/PLANS				
Description	Rail / Cross ties / Ballast	Major steel drawbridge across the Caloosahatchee River, plus others		
Estimated Costs	$3 to $6 million	$1 to $4 million		

Notes: [1] *Operates dinner / excursion trains from Fort Myers, North to Punta Gorda.*

APPENDIX E: PROFILE OF FLORIDA'S PASSENGER RAIL NETWORK

E.1 AMTRAK SERVICES

Amtrak routes are shown in **Figure E-1**.

E.1.1 SILVER METEOR

The *Silver Meteor* operates between New York and Miami. The service consists of one daily round-trip, stopping at 14 stations in Florida. Intermediate stops outside Florida include Savannah, Georgia; Charleston, South Carolina; Richmond, Virginia; Washington, DC; Baltimore, Maryland; and Philadelphia, Pennsylvania. Mileage of route segments appear in **Table E-1**. Southbound the train leaves New York at 3:15 PM and arrives in Miami at 6:55 PM the following day. Northbound the train leaves Miami at 8:20 AM and reaches New York at 11:06 AM the following day. Northbound the *Silver Meteor* stops in Jacksonville at 5:08 PM while southbound the train stops in Savannah at 9:23 AM. The *Silver Meteor* schedule offers daytime service between Jacksonville and Miami; overnight service is offered between Jacksonville and cities in the Northeast.

Table E-1: Route Segments of the *Silver Meteor*

Route Segment	Length
New York - Washington DC	225 miles
Washington DC - Rocky Mount	235 miles
Rocky Mount - Savannah	369 miles
Savannah - Jacksonville	148 miles
Jacksonville - Miami	412 miles
Total	**1,389 miles (450 miles in Florida)**

E.1.2 SILVER STAR

The *Silver Star* operates between New York and Tampa/Miami. The service consists of one daily round-trip, stopping at 17 stations in Florida. Intermediate stops outside Florida include Savannah, Georgia; Columbia, South Carolia; Raleigh, North Carolina; Richmond, Virginia; Washington, DC; Baltimore, Maryland; and Philadelphia, Pennsylvania. Mileage of route segments appears in **Table E-2.** Southbound the train leaves New York at 11:02 AM, arriving in Tampa at 12:34 PM, and Miami at 6:05 PM the following day. Northbound the train leaves Miami at 11:50 AM, Tampa at 5:17 PM and reaches New York at 7:18 PM the following day. Northbound the *Silver Star* stops in Jacksonville 10:37 PM, while southbound the train stops in Jacksonville at 6:55 AM. The train operates via Tampa and Columbia which adds schedule time to the trip. The *Silver Star* schedule is designed to focus on the Orlando and Tampa markets with overnight service to and from the Northeast. Miami is a secondary market for the train. Another key market for the train are the cities of

Raleigh, North Carolina and Columbia, South Carolina. The train also provides local service between Tampa and Miami. (**Figure E-2**)

Figure E-1: Florida's Passenger Rail System

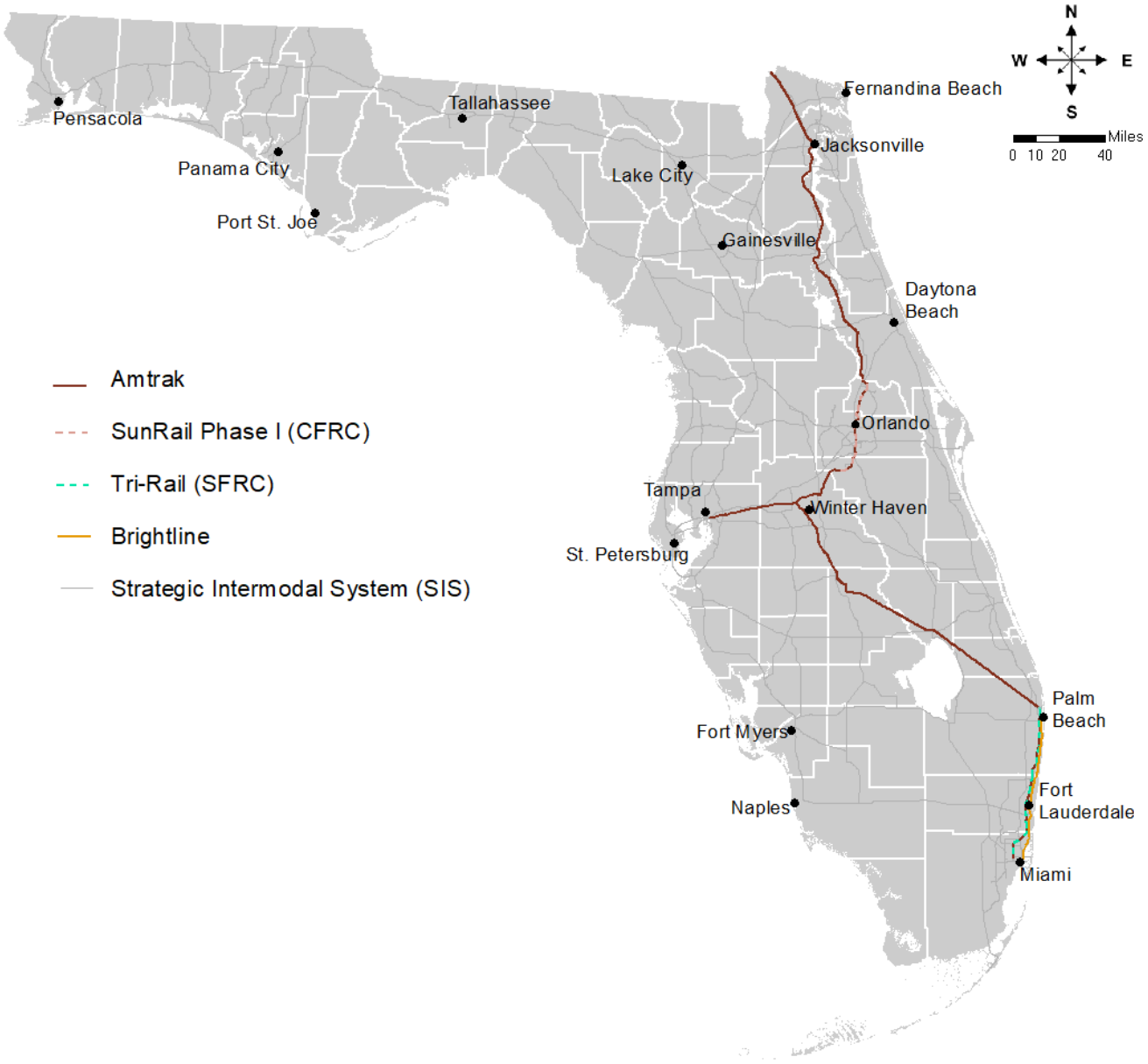


Table E-2: Route Segments of the *Silver Star*

Route Segment	Length
New York - Washington DC	225 miles
Washington DC – Raleigh	306 miles
Raleigh - Savannah	339 miles
Savannah - Jacksonville	148 miles
Jacksonville - Tampa	246 miles
Tampa - Miami	257 miles
Total	**1,521 miles (541 miles in Florida)**

Figure E-2: *Silver Star* Boarding Passengers in Tampa

E.1.3 AUTO TRAIN

Another Amtrak service that travels through Florida is Amtrak's *Auto Train.* The *Auto Train* is a unique product that carries both passengers and their automobiles between Lorton, Virginia, just south of Washington DC, and Orlando. Carrying passengers and their automobiles, the service provides an overnight link between the Northeast and Central Florida. The *Auto* Train has a maxium capacity of 320 vehicles. Auto carrying railcars preparing to receive automobiles are shown in **Figure E-3**.

Figure E-3: Auto Carrying Railcars of Amtrak's *Auto Train*

E.1.4 THRUWAY BUS SERVICE AND OTHER CONNECTING BUS SERVICE

Thruway Bus Services are coordinated feeder motor coach routes that connect to scheduled intercity rail passenger services. These services can extend the market area and add value to rail passenger routes. Amtrak offers daily Silver Service Thruway Bus Connections between Daytona Beach and DeLand, and between Fort Meyers, St. Petersburg, Tampa and Orlando. A Thruway bus is seen in **Figure E-4** awaiting an arrival of the *Silver Star* at the Lakeland Station.

Other daily bus service is offered between Jacksonville and Lakeland, connecting with the *Silver Star*.

In August 2014, Amtrak expanded its Thruway bus network in the Gulf Coast Region to cities once served by the *Sunset Limited* east of New Orleans. The new partnership with Capitol Trailways and Greyhound offers connections to trains in Jacksonville.

Figure E-4: Amtrak Thruway Bus at Lakeland Station

E.1.5 AMTRAK STATIONS

In 2009, Amtrak surveyed all its stations regarding improvements necessary for compliance with the Americans with Disabilities Act of 2008 (ADA), and for other repair information. Needs totaled $29.8 million. Most of the improvements have yet to be made. An inventory of Amtrak stations appears in **Appendix F**. Amtrak intends to move its Miami stop in the near future to the Miami Intermodal Center (MIC), seen in **Figure E-5**. MIC is served by Tri-Rail and Greyhound intercity bus service.

Figure E-5: Miami Intermodal Center near Miami Airport

E.2 COMMUTER RAILROADS

E.2.1 TRI-RAIL

Tri-Rail System Overview

Tri-Rail is a commuter rail service connecting Palm Beach County in the north and Miami-Dade County in the south. Current operations are along one line 71 mile long track, shown on **Figure E-1** and enlarged in **Figure E-6**. The Service is provided between the Miami Intermodal Center in the south and Mangonia Park Station in the north; the service runs along the former CSX Transportation's Miami Subdivision between the Hialeah Market Station and the Mangonia Park Station. **Figure E-6** pre-dates Tri-Rail's move to the MIC. In **Figure E-1,** Tri-Rail's service area is also called the South Florida Rail Corridor (SFRC).

History of Tri-Rail

The genesis of the current Tri-Rail service dates to the early 1980s when FDOT conceived of implementing passenger service along 67 miles of the CSX's single-track Miami Subdivision to provide an alternative means of transportation between Hialeah Station in Miami and West Palm Beach while Interstate 95 and the parallel Florida Turnpike were being widened. The line segment is presently referred to as the South Florida Rail Corridor.

FDOT purchased the track from CSX in 1989. Tri-Rail trains began operations the same year, offering commuter rail service free to riders. Revenue service began in May 1990. Under the terms of the purchase agreement, CSX would continue to dispatch trains on the line, perform line maintenance, and retain exclusive trackage rights for freight service.

The new service exceeded its ridership projections, and more trains were added. In 1998 the service was extended north to Mangonia Park and south from Hialeah Market Station to the new Miami Airport Station (which has since been closed). The extensions added four route miles to the Tri-Rail system.

To enhance line capacity for more trains and enhanced performance, Tri-Rail began double-tracking the route between Mangonia Park and Miami Airport. The project was completed in 2007. Tri-Rail began service to the Miami Intermodal Center (MIC), now its southern most station, in the spring of 2015.

Sponsorship

Tri-Rail is operated by the South Florida Regional Transportation Authority (SFRTA), a tri-county public transit authority based in Pompano Beach. Its member counties are Palm Beach, Broward and Miami-Dade Counties. SFRTA was created on 2003, by the Florida Legislature. It replaced the Tri-County Commuter Rail Authority, made up of the same three counties, which had managed Tri-Rail until that point. SFTRA is responsible for covering operating subsidies of the Tri-Rail service. However, capital funding has traditionally come from the state. SFRTA is cooperating with FDOT to find a new dedicated local funding sources before July 1, 2019, replacing existing state dedicated funding.

Figure E-6: Tri-Rail System

Source: Tri-Rail.

Current Operations

Trains and Amenities

There are 50 scheduled northbound and southbound trains per weekday. During peak periods, trains operate half hour or even shorter frequencies. During off peak hours, frequencies lengthen from 40 minutes to one hour. **Figure E-7** shows a Tri-Rail train set at the Hollywood Station.

There are 30 trains on Saturdays, Sundays and holidays, operating for the most part on hourly frequencies. In April 2015 Miami Airport Station opened at the Miami Intermodal Center, once again connecting Tri-Rail directly with the Miami International Airport for the first time since the original Miami Airport Station closed in 2011. This new station has connections to MIA Mover, providing a direct link to the airport, Metrorail, Metrobus and Greyhound.

Train amenities seating on two or three levels (depending on the railcar), bicycle racks, and bathrooms. In 2015, three Bombardier coaches were renovated to include additional bicycle capacity. These trains with special bike cars have the capacity to carry an additional 14 bicycles per train. The dedicated bike car will be in service before the end of 2014. Wi-Fi is also available on trains.

Figure E-7: Tri-Rail Commuter Train Set

Operator

Veolia Transportation, of Lombard, Illinois, is contracted to provide train operations and maintenance services.

Dispatching and Line Maintenance

Currently, CSX has responsibility for the dispatching and maintaining the line between Hialeah Station and Mangonia Park. However, in March 2013, SFRTA executed an agreement to take over the SFRC dispatch and maintenance of way on the CSX tracks. Tri-Rail anticipates the changeover, which will occur in the near future, will improve system performance.

Stations

All 18 Tri-Rail stations have parking and taxi service available, are served by local transit (Palm Transit, Broward County Transit and/or Miami-Dade Transit; and Metrorail at Metrorail Transfer) and have bike lockers. Tri-Rail Shuttle buses serve 10 stations with 20 routes, offering free service for Tri-Rail riders to points surrounding the stations.

Four stations have park and ride lots available (Cypress Creek, Fort Lauderdale, Sheridan, and Golden Glades).

Six stations are also Amtrak Silver Service stops (West Palm Beach, Lake Worth, Delray Beach, Deerfield Beach, Fort Lauderdale, and Opa-locka). Two stations are served by Greyhound intercity bus (West Palm Beach and Golden Glades) and one by Megabus (Sheridan).

Three stations offer convenient access to international or regional airports (Miami International Airport, Fort Lauderdale/Hollywood International Airport, and West Palm Beach Airport).

Real-time information of train operations is provided at stations. It is also available on smart phones and computers via the Tri-Rail app and website.

Maintenance and Support Facilities

Tri-Rail rolling stock is maintained at Tri-Rail's maintenance base in the Hialeah near the southern end of the route.

Ticketing

Tri-Rail offers various paper ticketing options. There are one-way and round trip fares and multi-ride fares (for 12 trips). Far levels are calculated by the number of zones transited (the route has up to six zones). Monthly passes are available for $100, regardless of the number of zones traveled through. Discounts of up 50% are available for those who quality. Weekend daily pass is available for $5, discounted 50% for those who qualify.

A Regional Monthly Pass is also available for $145, discounted for 17% for employees and 50% for students, children ages 5-12, seniors and persons with disabilities.

Tickets can be purchased at ticket vending machines at stations. They also can be purchased on-line.

Passengers can also use Tri-Rail's plastic EASY Card automated collection system, first implemented in 2011. Users can add cash value up to $150 to pay one-way fares, or load the card with all of Tri-Rail's different fare products, including monthly, 12-trip and Weekend passes. EASY Cards can be used to pay fares on Miami-

Dade Transit. Tri-Rail is exploring interoperability of the EASY Card system with Palm Transit and Broward County Transit.

With paper or EASY Cards, fare collection is the same. Passengers must tap on at station validators prior to boarding the trains and tap off on the validators when exiting their destination stations.

Rolling Stock

Most Tri-Rail train sets consist of four bi-level passenger cars and a diesel-electric locomotive. The trains operate in "Pull South/Push North" mode with the locomotive at the south end of the train set. The bi-level car at the north end of the train is a cab car having a driver's compartment so the train can be driven bi-directionally in push-pull mode (obviating the need to turn the train sets). Bi-level passenger cars appear behind the Tri-Rail locomotive in **Figure E-7**.

The bi-level coaches manufactured by Bombardier Transportation, a Canadian car builder, actually have three levels, though intermediate level seating is minimal. The bi-levels have a seated capacity of about 150. Cab cars, those cars with a driver's compartment so the train can be driven bi-directionally in push-pull mode (removing the need to turn the train sets), have slightly few seats than trailing coaches (cars without driver's compartments).

Tri-Rail has also recently received 24 new Hyundai-Rotem railcars. These included 10 cab cars and 14 coaches. This equipment has already been put into service, adding needed capacity and operational flexibility.

Tri-Rail is upgrading its locomotive fleet with 12 new units manufactured by Brookville Equipment Corporation in Brookville, Pennsylvania. The new locomotives have lower emissions profiles, are more energy efficient, and offer reduced noise and idling versus older equipment. As of 2015, all locomotives have been delivered, and are used in regular service.

Tri-Rail also operates self-propelled railcars, known as Diesel Multiple Units (DMUs). One DMU type is single-level, and the other is bi-level. Both types were manufactured by Colorado Railcar in the previous decade. The company has since ceased operations, though its designs were purchased by US Railcar, of Columbus, Ohio.

Security

Tri-Rail security guards patrol trains and stations. Security is provided by Wackenhut Security Corporation. Surveillance cameras monitor each of the 17 stations.

Sharing Track

As noted, CSX freight trains and Amtrak trains run on the South Florida Rail Corridor. Tri-Rail reported no conflicts with other operators with which is shares track.

E.2.3 SUNRAIL

SunRail System Overview

SunRail is a commuter rail service connecting Volusia County in the north and Orange County in the south through downtown Orlando. Current operations are confined to one line which is 31 miles, with 12 stations, as shown in **Figure E-1** and enlarged in **Figure E-8**. The commuter service runs along the former CSX Transportation A Line.

How SunRail Came to Be

The State of Florida purchased the line purchased a 61-segment of the A Line from CSX between DeLand and Poinciana in 2011. The segment is presently referred to as the Central Florida Rail Corridor. Phase 1 train operations on the 31-mile section between DeBary and Sand Lake Road began in May 2014. The line has been double tracked between DeBary and Maitland on the north end, and between Orlando and Sand Lake Road on the south end. This improvement facilitates operating trains simultaneously in opposing directions.

CSX runs a limited number of freight trains along the line at night. The majority of freight traffic on the A Line has been shifted to the CSX's north-south S Line to the west of the A Line. Three Amtrak services all run on part of the line: the *Silver Star* and the *Silver Meteor*, whose southern terminus is Miami; and *Auto Train*, whose southern terminus is Sanford.

Capital costs were covered by federal and state sources, along with local source from Volusia County, Seminole County, Orange County, the City of Orlando, and Osceola County. Later phases of SunRail implementation will extend the service along the length of the CFRC and to Orlando International Airport.

Sponsorship

Operating subsidies are covered by the local service sponsors, including Volusia County, Seminole County, Orange County, the City of Orlando and Osceola County.

Current Operations

Trains and Amenities

There are 48 scheduled northbound and southbound trains per weekday. There is no weekend or federal holiday service. SunRail provides emergency ride home service. During peak periods, trains operate on half hour frequencies. During off peak hours, trains run every two hours.

Train amenities include Wi-Fi, power outlets, and bathrooms. Cars are equipped with mechanical devices enabling boarding of persons with disabilities. The cars are also equipped to accommodate bicycles. A SunRail train set is shown in **Figure E-9**.

Figure E-8: SunRail System

Figure E-9: SunRail Commuter Rail Train Set

Operator

Bombardier Technology has been contracted to provide train operations and maintenance services. Bombardier Technology is a subsidiary of Bombardier Transportation, a Canada-based firm, which manufactured the SunRail commuter railcars. Trains operate with two-person crews.

Dispatching

The responsibility for the line belongs to the State of Florida. Dispatching is handled by the SunRail Operations Control Center at the CSX Rand Yard in Sanford.

Stations

Most of SunRail's 12 stations have free parking, in the suburbs of Orlando. All have bike parking and are accessible to passengers with physical disabilities. All have connections to local transit: Votran at the DeBary Station and LYNX at all the remaining 11 stations. Each station is equipped with four ticket vending machines. SunRail and Amtrak share use of the Orlando and Winter Park Stations. At Winter Park, SunRail commuter trains and longer Amtrak intercity trains stop at the same double platform. All other stations have platforms for Sun-Rail's exclusive use. All platforms at SunRail exclusive stations are 300 feet long. The double platform at Sanford Station is shown in **Figure E-10**.

Figure E-10: SunRail's Sanford Station's Double Platform

In November 2014, SunRail initiated an Ambassadors program at stations. Walking the station platforms, the Ambassadors are volunteers who assist riders with any questions they may have about SunRail in general, or specifically about ticket purchasing, boarding, parking, transit connections, train operations, etc.

Maintenance and Support Facilities

Bombardier maintains the rolling stock at SunRail's Vehicle Storage and Maintenance Facility at CSX's Rand Yard in Lake Monroe. Heavy maintenance and federal mandated, periodic inspections are performed at Amtrak's maintenance facility in Sanford.

Ticketing

Passengers can purchase tickets in two ways. Limited use ticket, which are for single one-way or round trips. These can be purchased via the ticket vending machines at stations. Once a passenger has a ticket, the passenger must locate one of the six validator units available at each station and tap the ticket on the screen (tap on), wait for the beep and then board the train. The passenger must repeat this process (tap off) when exiting the destination station.

Passengers who ride SunRail routinely can purchase a reusable and reloadable plastic SunCard. The cards can be purchased and reloaded at the station ticket vending machines. The process of using the cards is the same as for the limited use tickets, that is, tapping on and tapping off, as noted above. There are three plans

available for SunCards: the 7 Day Plan, where passengers can ride the trains as many times as they want for seven consecutive days after they first tap on; a 30 Day Plan, for 30 consecutive calendar days after tapping on; and a 1 Year Plan, for 365 consecutive days after tapping on. These plans provide passengers with savings over limited use tickets.

SunCards can also be loaded with a prepaid value, which is reduced as passengers tap on and tap off.

The limited use tickets and the SunCards are accepted as proof of payment on connecting transit.

Discounts on all the ticketing mechanisms are available to those over 65 years of age and those between the ages of 7 and 17. Those with disabilities as certified by LYNX or Votran can purchase the multi-ride plans with a 50% discount.

Rolling Stock

Train sets consist of a diesel-electric locomotive and one to three cars. SunRail operates its trains with locomotives manufactured by Motive Power Industries (MPI) in Boise, Idaho; and bi-level cars, manufactured by Bombardier Transportation, as previously noted. MPI and Bombardier are traditional suppliers of commuter rail rolling stock throughout North America. SunRail has 10 locomotives and 24 coaches.

The trains operate in "Push South/Pull North" mode with the locomotive at the north end of the train set. The bi-level car at the south end of the train is a cab car, having controls for the engineer when the train is pushed southbound.

Security

Security on the trains and at stations is the responsibility of FDOT. FDOT does not employ or contract for a security force. Surveillance cameras monitor each of the 12 stations. There are emergency phones available for passenger as the stations as well.

Sharing Track

As noted, CSX freight trains and Amtrak trains run on the Central Florida Rail Corridor. CSX trains are restricted to a midnight to 5 AM operating window on weekdays. Amtrak's Silver Service trains operate on the full length of the corridor, and the *Auto Train* operates only between DeLand and Sanford.

SunRail reported no major conflicts with CSX. However, SunRail did report that meets of northbound and southbound Amtrak trains south of Poinciana on a single track segment of CSX occasionally results in Amtrak trains remaining longer on the corridor than anticipated, thus impacting SunRail's operations.

E.3 TOURIST RAILROADS

The basic operations of Florida's four tourist railroads are outlined below.

E.3.1 FLORIDA RAILROAD MUSEUM

The Florida Railroad Museum, in Parrish (Manatee County), operates most Saturdays and Sundays, with standard gauge trains departing at 11 AM and 2 PM for a 13 mile round trip. Trains are pulled by a diesel-electric locomotive. Coaches consist of vintage passenger equipment, as shown in **Figure E-11**. Passengers can ride in the locomotive cab and in a caboose as well.

The museum has approximately 40,000 visitors per year. Of these about 70% are in-state visitors and 30% from out of state. Visitors pay on average about $20 per person for general admission and special events.

There are three full-time employees and three part-time employees at the museum. About 50 volunteer members maintain the equipment and track, operate the trains, and perform administrative functions, including answering telephones.

Special event trains are also run, i.e. Day out with Thomas the Tank Engine in March, Pumpkin Patch Express in October, and North Pole Express in December. A stationary museum is open between 10 AM and 4 PM Wednesdays through Sundays. The museum is closed the last two weeks in December.

Figure E-11: Florida Railroad Museum Train Set Alighting Weekend Passengers at Parrish Station

E.3.2 GOLD COAST RAILROAD MUSEUM

The Gold Coast Railroad Museum, in Miami, offer narrow gauge and standard gauge train rides. (**Figure E-12**) The Edwin Link Children's Railroad, or Link train, runs on 2-foot gauge track regularly on weekends at 1 and 3 PM, and on a reduced schedule weekdays. Link train rides last about 20 minutes.

Standard gauge train rides using a diesel-electric locomotive and a streamliner coach are offered on most weekends. Passengers can also ride in a caboose. Also offered are standard gauge locomotive cab rides, but these are not scheduled. Standard gauge rides last for about 20 minutes.

The museum has approximately 90,000 visitors per year. Of these about 70% to 75% are in-state visitors and 25% to 30% from out of state. Visitors pay on average about $23 per person for general admission and special events.

There are two full-time employees and five part-time employees at the museum.

Special event trains are also offered, e.g., the Polar Express in December.

Figure E-12: Gold Coast Railroad Museum Steam Locomotive on Display

E.3.3 SEMINOLE GULF RAILROAD

The Seminole Gulf Railroad, in Fort Myers, offers the *Seminole Gulf Murder Mystery Dinner Train*, featuring a murder mystery play. (**Figure E-13**) Trains are pulled by a standard gauge diesel-electric locomotive. On board, the murder mystery play is performed during dinner, with actors visiting each car. The train includes a six-course dinner. The train has hosted over 80 different murder mystery productions since 1991.

All trains depart from Colonial Station depot in Fort Myers to Tucker's Grade and then return. Trip length is 40 miles round trip. Trip time is 3.5 hours. Dinner trains operate Wednesday through Sundays. Special event trains are also operated, e.g., Thanksgiving Day dinner train, New Year's Eve Gala, etc.

The Murder Mystery Dinner Train has about 27,000 visitors per year. Of these about 75% are in-state visitors and 25% from out of state. Visitors pay on average about $74 per person for the train ride, the dinner and the show.

The train is operated by railroad employees who also performed functions for the freight operations. There are 35 employees in all. The dinner train accounts for about one-third of the railway's business.

Figure E-13: Seminole Gulf Railroad Dinner Train Locomotive

Source: Seminole Gulf Railroad

E.3.4 ORLANDO & NORTHWESTERN RAILWAY

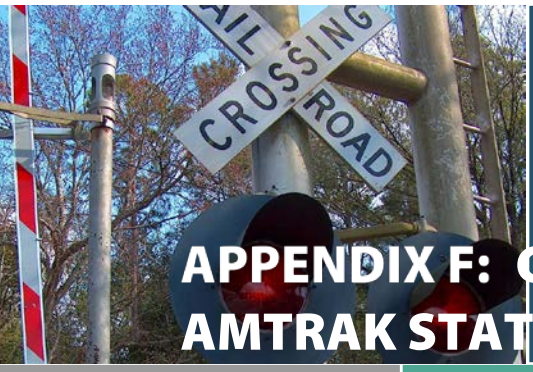
The Tavares, Eustis and Gulf Railroad, in Tavares (Lake County), offered the *Orange Blossom Cannonball* ride up until January 2017. The service ran on the tracks of the Florida Central Railroad, and was replaced by the Royal Palm Railway Experience on the Orlando & Northwestern Railway (**Figure E-14**).

Rolling stock include vintage 1940s passenger coaches, and the Royal Palm Railway Experience includes both special themed event trains and various seasonal event trains. Offerings include:

- The Golden Triangle Route
- The Royal Pizza Express
- BBQ Limited
- Rails and Ales Brew Train
- The Royal Wine Limited
- Sumo Express
- Air, Land, and Sea Adventure
- Trick or Treat Train
- The Polar Express™ Train Ride
- The Wizard of Oz™ Train Ride

Visitors pay between $10-$90 per person for the train ride, depending on the route and options selected.

Figure E-14: Orlando & Northwestern Railway Locomotive



APPENDIX F: CHARACTERISTICS OF FLORIDA AMTRAK STATIONS

Appearing in the following six tables are characteristics of the 18 Amtrak stations in Florida. Amtrak is the only passenger operator at 11 of these stations. It shares station facilities with Tri-Rail at five stations, and with SunRail at two stations. Amtrak is planning to relocate is Miami stop to the Miami Intermodal Center in the near future; the MIC is served by Tri-Rail today.

The characteristics below were obtained through various means, including Google Earth, the Great American Stations website, Amtrak's National Time Table, Amtrak's 2009 report on ADA-compliance and state of good repair needs[1], and site visits in late 2015.

[1] *A Report on Accessibility and Compliance with the Americans With Disabilities Act of 1990*, Amtrak, February 2009.

Table F-1: Deerfield Beach, Deland, and Delray Beach Station Characteristics

Location	Deerfield Beach	Deland	Delray Beach
Owner	FDOT facility, parking lot, platform, and track	Amtrak facility; FDOT parking lot, platform, and track	Palm Beach County facility and parking lot; FDOT, platform and track
Address	1300 West Hillsboro Blvd. Deerfield Beach, FL 33442	2491 Old New York Ave. DeLand, FL 32720	345 South Congress Ave. Delray Beach, FL 33444
Served By	*Silver Meteor, Silver Star*	*Silver Meteor, Silver Star*	*Silver Meteor, Silver Star*
Platform Type	Double	Single	Double
Length	1,000 ft.	250 ft.	415 ft.
Construction	Concrete and asphalt	Concrete	Concrete
Shelter	Canopy on both platforms, one adjacent to Depot	Canopy adjacent to depot	Canopy on both platforms
Lighting	Fully lit	Partially lit	Fully lit
Platform Amenities	Benches	Benches	Benches
Passenger Safety	Yellow tactile safety striping	Yellow Safety Stripe	Yellow tactile safety striping
ADA	Waiting room, platform wheel chair accessible; not all facilities accessible	Station wheelchair accessible; no barriers between station and train	Platform wheel chair accessible
Depot Hours	845 AM to 6 PM (closing soon)	815 AM to 915 PM	None
Wi-Fi Available	No	No	No
Seating Capacity	15 inside; benches outside	20 est.	
Restrooms	Yes	Yes	No
ATM	No	No	No
Ticketing	Staffed counter, baggage service	Staffed counter, baggage service, Quik-Trak Kiosk	None
Payphone	No	No	No
Shared Uses	Tri-Rail station	No	Tri-Rail station
Parking	No dedicated parking; shared with Tri-Rail; approximately 150 spaces	Short term spaces; 30 long term spaces	No dedicated parking; shared with Tri-Rail; approximately 130 spaces
ADA Parking Facilities	4 spaces east side	Yes	6 spaces
Intermodal	Broward County Transit; Tri-Rail Shuttle	No	Palm Tran buses; Downtown Runabout Shuttle
Other	$597,000 in ADA Compliance and State of Good Repair needs	$901,000 in ADA Compliance and State of Good Repair needs	$364,000 in ADA Compliance needs

Table F-2: Fort Lauderdale, Hollywood, and Jacksonville Station Characteristics

Location	Fort Lauderdale	Hollywood	Jacksonville
Owner	FDOT facility, parking lot, platform, and track	FDOT facility, parking lot, platform, and track	Amtrak facility and parking lot CSX platform and track
Address	200 SW 21st Terrace Fort Lauderdale, FL 33312	3001 Hollywood Blvd. Hollywood, FL 33021	3570 Clifford Lane Jacksonville, FL 32209
Served By	*Silver Meteor, Silver Star*	*Silver Meteor, Silver Star*	*Silver Meteor, Silver Star*
Platform Type	Double	Double	Double
Length	950 ft. / 1,020 ft.	800 ft. / 1,050 ft.	1,800 ft.
Construction	Concrete	Concrete / Asphalt	Concrete
Shelter	Canopy on both platforms	Canopy on both platforms	Canopy
Lighting	Fully lit	Fully lit	Fully lit
Platform Amenities	Benches	Benches	None
Passenger Safety	Yellow tactile safety striping	Yellow tactile safety striping	Yellow tactile safety striping
ADA	Waiting room, platform, restroom ticket office and elevator wheelchair accessible; not all other station facilities accessible	Waiting room, platform, water fountain, restroom, ticket office, payphone and elevator wheelchair accessible; not all other station facilities accessible	Waiting room, platform, water fountain, ticket office, restroom, and wheel chair accessible; not all other station facilities accessible
Depot Hours	820 AM to 605 PM	800 AM to 600 PM	545 AM to 1115 PM
Wi-Fi Available	No	No	No
Seating Capacity	32 inside	22 inside	50 est. inside; benches outside
Restrooms	Yes	Yes	Yes
ATM	No	No	No
Ticketing	Staffed counter, baggage service, Quik-Trak Kiosk	Staffed Counter, Baggage Service, Quik-Trak Kiosk	Staffed counter, baggage service, Quik-Trak Kiosk
Payphone	No	Yes	Free phone (ask ticket clerk)
Shared Uses	Tri-Rail station	Tri-Rail Station	No
Parking	No dedicated parking; shared with Tri-Rail; approximately 90 spaces	20 Short Term Spaces; 22 Long Term Spaces	70 spaces est. total
ADA Parking Facilities	9 spaces	3 spaces	2 spaces
Intermodal	Broward County Transit; Miami-Dade Transit; Tri-Rail Shuttle	Broward County Transit	Jacksonville Transportation Authority buses; Amtrak Thruway buses
Other	$2 million in ADA Compliance and State of Good Repair needs	$1.4 million in ADA Compliance needs	$2.7 million in ADA Compliance and State of Good Repair needs

Table F-3: Kissimmee, Lakeland, and Miami Station Characteristics

Location	Kissimmee	Lakeland	Miami
Owner	FDOT facility, parking lot, platform, and track	City of Lakeland facility, parking lot, and platform CSX track	Amtrak facility, parking lot, and platform; FDOT track
Address	111 East Dakin Avenue Kissimmee, FL 34741	600 East Main Street Lakeland, FL 33801	8303 NW 37th Avenue Miami, FL 33147
Served By	*Silver Meteor, Silver Star*	*Silver Star*	*Silver Meteor, Silver Star*
Platform Type	Single	Single	Double
Length	1,160 ft.	890 ft.	1,030 ft.
Construction	Concrete/asphalt	Concrete	Concrete
Shelter	Canopy adjacent to depot	Canopy adjacent to depot	Canopy adjacent to depot
Lighting	Partially lit	Fully lit	Fully lit
Platform Amenities	Benches	Benches	Benches
Passenger Safety	Yellow safety striping	Yellow tactile safety striping	Yellow safety striping
ADA	Waiting room, platform, water fountain, and payphone wheelchair accessible; not all other station facilities accessible	Waiting room, platform, water fountain, ticket office, and elevator wheel chair accessible; no barriers between station and train	Waiting room, platform, water fountain, restroom ticket office; payphone wheelchair accessible; no barriers between station and train
Depot Hours	930 AM to 700 PM	1015 AM to 615 PM	700 AM to 1045 PM
Wi-Fi Available	No	No	No
Seating Capacity	12 est.	25 inside	100 est. inside; limited seating outside
Restrooms	Yes	Yes	Yes
ATM	Yes	No	Yes
Ticketing	Staffed counter, baggage service, Quik-Trak Kiosk	Staffed counter, baggage service	Staffed counter, baggage service, Quik-Trak Kiosk
Payphone	Yes	No	Yes
Shared Uses	No	No	No
Parking	12 spaces, plus unpaved area available for parking	29 spaces total	150 est. total, including overflow lot
ADA Parking Facilities	Yes, 2 spaces	2 spaces	4 spaces
Intermodal	Lynx buses at Intermodal Station across street; Greyhound stop adjacent to station	Citrus Connection buses 2 blocks away; Amtrak Thruway buses	Miami-Dade Transit
Other	$3.4 million in ADA Compliance and State of Good Repair needs	$501,000 in ADA Compliance needs	$2.9 million in ADA Compliance and State of Good Repair Needs; Amtrak started procurement for improvements in 2013

Table F-4: Okeechobee, Orlando, and Palatka Station Characteristics

Location	Okeechobee	Orlando	Palatka
Owner	CSX facility, parking lot, platform and track	FDOT facility, parking lot, platform and track	City of Palatka facility, parking lot, and platform; CSX track
Address	801 North Parrott Avenue Okeechobee, FL 34972	1400 Sligh Boulevard Orlando, FL 32806	220 North 11th Street Palatka, FL 32177
Served By	*Silver Star*	*Silver Meteor, Silver Star*	*Silver Meteor, Silver Star*
Platform Type	Single	Double	Single
Length	550 ft.	1,600 ft.	530 ft.
Construction	Concrete	Concrete/asphalt	Asphalt
Shelter	Small canopy and sheltered seating area	Depot, arched arcade and canopy on other side of depot	Depot
Lighting	Fully lit	Fully lit	Partially lit
Platform Amenities	Benches under canopy	Benches	Bench
Passenger Safety	Yellow tactile safety striping	Yellow safety stripe	No striping
ADA	Platform wheel chair accessible	Waiting room, platform, water fountain, ticket office, restroom, and free phone wheel chair accessible; no barriers between station and train	Platform wheel chair accessible
Depot Hours	None	730 AM to 815 PM	None
Wi-Fi Available	No	No	No
Seating Capacity	10 in shelter plus 12 under eaves	100 est. inside	None
Restrooms	No	Yes	Yes
ATM	No	Yes	No
Ticketing	None	Staffed counter, baggage service, Quik-Trak Kiosk	None
Payphone	No	Free phone	No
Shared Uses	No	SunRail D. Browning Railroad Museum	No
Parking	22 spaces total	No Short or Long Term Spaces	5 Short Term Spaces; 15 Long Term Spaces
ADA Parking Facilities	2 spaces	Yes	4 spaces
Intermodal	No connection	Lynx buses; Florida Van Pools	The Ride Solution buses; Greyhound stop
Other	$1.1 million in ADA Compliance and State of Good Repair needs; Amtrak started procurement for improvements in 2013; new station constructed	$2.7 million in ADA Compliance and State of Good Repair needs; in 2014 Amtrak announced a $2.1 million refurbishment of station	$855,000 in ADA Compliance and State of Good Repair Needs

Table F-5: Sanford, Sebring, and Tampa Station Characteristics

Location	Sanford	Sebring	Tampa
Owner	Amtrak facility, parking lot, platform, and track	Amtrak facility; CSX parking lot, platform, and track	City of Tampa facility; Tampa Hillsborough Crosstown Expressway Authority parking lot; CSX track
Address	600 So. Persimmon Ave. Sanford, FL 32771	601 East Center Avenue Sebring, FL 33870	601 North Nebraska Avenue Tampa, FL 33602
Served By	*Auto Train*	*Silver Meteor, Silver Star*	*Silver Star*
Platform Type	Double	Single	Single other platforms not used
Length	1,200 ft.	1,150 ft.	780 ft.
Construction	Concrete	Concrete and asphalt	Concrete
Shelter	Canopy adjacent to depot	Canopy adjacent to depot	Canopies over platform
Lighting	Fully lit	Fully lit	Fully lit
Platform Amenities	Benches; gift shop in depot	Benches	None
Passenger Safety	Yellow safety stripe	Yellow safety stripe	Yellow safety stripe
ADA	Waiting room, platform, water fountain, ticket office, and restrooms wheelchair accessible; not all other station facilities accessible	Waiting room, platform, water fountain, ticket office, and restrooms wheel chair accessible; no barriers between station and train	Waiting room, platform, water fountain, restroom ticket office; payphone wheelchair accessible; no barriers between station and train
Depot Hours	800 AM to 400 PM	1000 AM to 500 PM	815 AM to 615 PM
Wi-Fi Available	Yes	No	No
Seating Capacity	200 est. inside	20 inside	100 est.
Restrooms	Yes	Yes	Yes
ATM	Yes	Yes	Yes
Ticketing	Staffed counter, baggage service, Quik-Trak Kiosk	Staffed counter, baggage service	Staffed counter, baggage service, Quik-Trak Kiosk
Payphone	No	No	Payphone
Shared Uses	No	No	No
Parking	No short or long term spaces; 15 visitor spaces	22 spaces total	38 short term spaces; 60 long term spaces
ADA Parking Facilities	2 spaces	2 spaces	Yes
Intermodal	Free shuttle to downtown Sanford	None	Hillsborough Area Regional Transit Authority buses
Other	$1.1 million in ADA Compliance and State of Good Repair Needs; design work completed in 2013	$1.4 million in ADA Compliance and State of Good Repair needs	$3.5 million in ADA Compliance and State of Good Repair needs; Amtrak started procurement for improvements in 2013

Table F-6: West Palm Beach, Winter Haven, and Winter Park Station Characteristics

Location	West Palm Beach	Winter Haven	Winter Park
Owner	City of West Palm Beach facility and parking lot; FDOT platform and track	CSX facility, parking lot, platform and track	City of Winter Park facility and parking lot; FDOT platform and track
Address	209 South Tamarind Ave. West Palm Bch, FL 33401	1800 7th Street SW Winter Haven, FL 33880	148 West Morse Boulevard Winter Park, FL 32789
Served By	Silver Meteor, Silver Star	Silver Meteor, Silver Star	Silver Meteor, Silver Star
Platform Type	Double	Single	Double
Length	1,020 ft. west side and 1,120 ft. east side	360 ft.	1,160 ft.
Construction	Concrete	Concrete	Brick
Shelter	Canopies	Canopy adjacent to depot	Canopies adjacent to depot
Lighting	Fully lit	Fully lit	Fully lit
Platform Amenities	Benches	Benches	Benches
Passenger Safety	Yellow tactile safety striping	Yellow tactile safety striping	Yellow tactile safety striping
ADA	Waiting room, platform, water fountain, restroom ticket office; payphone wheelchair accessible; no barriers between station and train	Waiting room, platform, water fountain, ticket office, and restrooms wheel chair accessible; not all other station facilities accessible	Waiting room, platform, water fountain, ticket office, and payphone wheelchair accessible; not all other station facilities accessible
Depot Hours	845 AM to 600 PM	915 AM to 430 PM	900 AM to 800 PM
Wi-Fi Available	No	No	No
Seating Capacity	24 inside; 14 outside	30 est. inside	20 est.
Restrooms	Yes	Yes	Yes
ATM	No	No	Yes
Ticketing	Staffed counter, baggage service, Quik-Trak Kiosk	Staffed counter, baggage service	Staffed counter, baggage service, Quik-Trak Kiosk
Payphone	Yes	No	Yes
Shared Uses	Tri-Rail station	No	SunRail station
Parking	7 short term spaces; 60 long term spaces	20 spaces total	No dedicated parking; 170 est. total
ADA Parking Facilities	7 spaces	2 spaces	2 spaces
Intermodal	Palm Tram buses; Greyhound buses; Tri-Rail shuttles	Winter Haven Area Transit buses	Lynx buses
Other	$1.4 million in ADA Compliance needs	$1.7 million in ADA Compliance and State of Good Repair needs	$1.2 million in ADA Compliance and State of Good Repair needs

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APPENDIX G: ECONOMIC IMPACTS OF FREIGHT RAIL

G.1 INTRODUCTION

Economic impacts of freight rail activities in Florida stem from firms providing freight transportation services and industries that use such services to trade goods. Of these activities, freight-users generate the most significant impacts.

The Surface Transportation Board (STB) WAYBILL SAMPLE database is used to analyze Florida goods movements. WAYBILL-derived, inbound, outbound, and intrastate commodity volumes and values are bridged with the IMPLAN® economic model to determine how freight movements generate direct economic impacts in Florida.[2] Further, indirect impacts associated with suppliers, and induced impacts associated with the re-spending of income, are also quantified. Combined, the direct, indirect, and induced comprise total economic impacts, with each measured by employment, income, value-added (i.e., Gross State Product), output, and taxes.

G.2 APPROACH, DATA SOURCES, AND MOVEMENTS

The analysis approach follows generally-accepted standards by identifying and categorizing the economic impacts related to freight rail. The following subsection outlines this methodology, data sources, economic model, and the applied assumptions for freight movements.

IMPACT APPROACH AND TERMINOLOGY

Economic impacts of freight rail are categorized into two broad activities: freight rail service-providers and freight rail users. For each activity, three impact types are modeled: direct, indirect, and induced. And for each type, five measures are quantified: jobs (employment), income, value-added, output, and taxes. Activities, types, and measures are defined below.

Activities

Florida freight rail-related economic impacts are categorized into freight service-provider and freight user impacts.

- **Freight Service Providers** – Impacts associated with the provision of freight rail transport (i.e., the rail industry) include a range of transport and support administrative operations. Service provider

[2] Freight rail volumes are readily available from the STB WAYBILL database; however, values for the movements are not supplied; as such, values per ton (by commodity) from the TRANSEARCH® database, pertaining to Florida other geographies, were applied to the STB WAYBILL volumes.

impacts are based on transportation industry information in the Implan® model, reflecting only the freight component by subtracting the passenger (i.e., Amtrak) operations from the Implan® data.

- **Freight Users** – Impacts associated with shippers/receivers using freight rail for goods movements (e.g., intermediate and final goods, etc.), excepting the rail industry itself. Shippers/receivers utilizing rail have several options available to transport freight and could possibly substitute other modal transport (truck and/or water) if rail services became unavailable. However, the choice to use railroads to ship/receive freight indicates cost and/or logistical advantages, and as such, removal of such advantages would negatively affect rail users.

Types

Service provider and user impacts each consist of three types (and a combined total):

- **Direct** – Impacts from the provision of rail transport (service providers), as well from the firms/industries that use such rail services to ship and receive goods (freight users).
- **Indirect** – Impacts associated with the suppliers that provide intermediate goods and services to the directly impacted industries.
- **Induced** – Impacts associated with the re-spending of earned income from both the direct and indirect industries in the study area[3].
- **Total** – Aggregated direct, indirect, and induced types.

Measures

Each type is measured in terms of five economic metrics[4]:

- **Jobs/Employment** – Measured in terms of full-time-equivalent (FTE) job-years.
- **Income** – Wage/salary earnings paid to the associated jobs.
- **Value-Added** – Net economic activity (i.e., total output less gross intermediate inputs), synonymous with GRP (gross regional product); includes employee and proprietor income, other income types, taxes, etc., required to produce final goods and services.
- **Output** – Total sales value associated with all levels of economic activity (comprised of gross intermediate inputs and value added, combined).
- **Taxes** – Various taxes on production and imports (sales, property, excise, etc.), fines, fees, licenses, permits, etc. resulting from business economic activity.

DATA SOURCES AND MODELS

Reflective of various industries, freight rail user impacts are much greater than those related to the facilitating freight services. Comprehensive user-related impacts requires converting monetized commodity

[3] Indirect and induced impact types are often referred to, jointly, as multiplier impacts

[4] All monetary measures are presented in 2013 dollars (i.e., income, value-added, output, and taxes).

movement data into direct industry output estimates, conducted by bridging the STB WAYBILL commodity movement data and the IMPLAN® economic model.

WAYBILL Sample

Based on the Standard Transportation Commodity Classifications (STCC) system developed for railroads, by the Surface Transportation Board (STB), the WAYBILL provides detailed commodity movement data at the county level. It uses a 2% stratified sample of carload WAYBILLS for all domestic rail traffic submitted by carriers that terminate 4,500 or more revenue carloads annually. STCC data were obtained from the WAYBILL at the four-digit level of detail to ascertain the economic impact associated with industries exporting locally-produced goods, and/or importing materials used in production (intermediate goods) or sold as finished products (final consumption). Although the WAYBILL database provides freight rail volumes, values for the movements are not supplied; as such, values per ton by commodity from the TRANSEARCH® database, pertaining to Florida and other geographies, were applied to WAYBILL volumes, effectively serving as a proxy estimate for the monetized directional commodity movements.

Implan®

The IMPLAN® v3 model, produced by the IMPLAN® Group LLC, is an economic modeling, input-output based, social account matrix software. It estimates the economic impacts to a defined geography (i.e., Florida) ensuing from expenditures in an industry or commodity[5]. A social account matrix reflects the economic interrelationships between the various industries (and commodities), households, and governments in an economy and measures such interdependency via impact multipliers. Multipliers are developed within IMPLAN® from regional purchase coefficients, production functions, and socioeconomic data for each impact variable and are geographically-specific. IMPLAN® data and industry-accounts closely follow the conventions used in the "Input-Output Study of the U.S. Economy" by the U.S. Bureau of Economic Analysis. IMPLAN® is one of the most commonly accepted models used for economic impact analysis and estimation throughout the country.

Additionally, IMPLAN® provides commodity-to-industry production and absorption matrices that enable the quantification, for example, of how inbound commodities are used (absorbed) across Florida industries in the respective production processes to create final goods and services, or by institutions for final consumption. Algorithms were developed to translate commodity (STCC) data into IMPLAN® industry categories, and such translation processes are used to estimate the impacts associated with directional commodity movements.

Combined

The WAYBILL commodity detail (supplemented with proxy values for the directional commodity tonnage movements) is bridged with the IMPLAN® economic model to assess the economic impacts of freight. WAYBILL data provides the requisite commodity detail for translation into detailed economic interrelationships between commodities, industries, and institutions via the IMPLAN® model.

IMPLAN® does not identify commodity movements (only the underlying commodity to industry structure), and the WAYBILL does not provide the economic interrelationships necessary to determine how the commodity movements interact within the economy.

[5] Note that all results presented pertain only to one-year static impacts for year 2013 flows (in year 2013 values), and do not provide any dynamic or feedback changes.

FREIGHT TONNAGE AND VALUE

Freight tonnage volumes and commodity values used in the economic analysis are based on the WAYBILL data and findings presented in Appendix C. Economically-relevant directional movements include outbound (originating within Florida, terminating beyond), inbound (originating beyond Florida, terminating within), and intra (originating and terminating within Florida). However, through traffic is not directly applicable to freight users based in Florida, and is thus excluded; albeit, such movements bear on the magnitude of freight transport service providers in Florida.

For economic analysis, various considerations to the data presented in Appendix C were made:

- **Commodity Detail** – To facilitate translation between WAYBILL commodity categories to those of IMPLAN®, commodity flow data are analyzed from a detailed four-digit STCC level, whereas the freight flow analysis is aggregated at the two-digit STCC level;[6]
- **Intrastate Movements** – Are combined with outbound movements, since both reflect industry production within Florida;
- **Flow Anomalies/Adjustments** – Certain commodity flows within the WAYBILL database were deemed anomalous when Florida economic industry data did not report associated user industry production and/or absorption (depending on directionality) of such commodities. In specific, rare instances (for certain commodities, by direction), WAYBILL reports movements that exceed the existing economic relationships, per the IMPLAN® model[7]. In such instances, the WAYBILL-based data were proportionately scaled back, such that, once the concordance was conducted, the resulting impacts are realistically constrained within the existing economic measures for Florida in 2013; and
- **Excluding Non-Economic Movements** – WAYBILL data includes a few STCC "commodity" movements, which are not actual movements of economically-relevant goods, such as STCC42: Shipping Containers, which are empty backhaul movements with no associated production value.[8] Hence, such commodity categories were appropriately excluded.

Detailed commodity freight flows (i.e., four-digit STCC) are evaluated in the economic impact calculations; a consolidated summary of such economically-relevant tons and value movements (i.e., two-digit STCC) are summarized in **Table G-1**, per the top 10 commodities by value.

Table G-1: Economically-Relevant Freight Movements

STCC2	Commodity	Tons		Value (in millions)		Average Value/Ton
		Amount	Percent	Amount	Percent	
OUTBOUND/INTRA						
46	Misc. Mixed Shipments	3,049,920	7.1%	$16,135	48.7%	$5,290
28	Chemicals or Allied Prods.	8,590,422	20.1%	$6,347	19.1%	$739
26	Pulp, Paper or Allied Prods.	2,595,400	6.1%	$2,567	7.7%	$989

[6] STCC4 and STCC2 are commodity aggregation designations, with STCC4 reflecting more detailed commodity sub-categorization, whereas STCC2 reflect higher level category subtotals. The freight flow analysis presents STCC2 results for the sake of simplifying and presenting multidimensional results; however, the economic analysis necessitates the greater commodity detail because of the detailed commodity-to-industry economic model structure.

[7] Such inconsistencies between reported modal movements and economic activity may stem from various factors, including, but not limited to: differences in reporting/data compilation, stratified sampling error of freight movements, mis-categorization, redundant freight movements, etc.

[8] The only value associated with such shipping container movements is reflected under Freight Service Provider impacts, as outlined above.

20	Food or Kindred Prods.	2,158,812	5.0%	$1,786	5.4%	$828
14	Nonmetallic Minerals	22,956,695	53.7%	$1,544	4.7%	$67
44	Freight Forwarder Traffic	182,520	0.4%	$966	2.9%	$5,290
35	Machinery	81,720	0.2%	$792	2.4%	$9,697
33	Primary Metal Prods.	225,272	0.5%	$487	1.5%	$2,160
40	Waste or Scrap Materials	1,218,504	2.8%	$400	1.2%	$328
23	Apparel or Related Prods.	55,520	0.1%	$297	0.9%	$5,358
	Remaining Commodities	1,674,854	3.9%	$1,827	5.5%	$1,091
	Total	**42,789,639**	**100.0%**	**$33,148**	**100.0%**	**$775**
INBOUND						
46	Misc. Mixed Shipments	3,918,120	10.8%	$20,728	35.5%	$5,290
37	Transportation Equipment	2,069,232	5.7%	$19,470	33.3%	$9,409
28	Chemicals or Allied Prods.	3,338,671	9.2%	$5,063	8.7%	$1,516
20	Food or Kindred Prods.	3,175,724	8.7%	$3,207	5.5%	$1,010
26	Pulp, Paper or Allied Prods.	1,255,036	3.4%	$1,474	2.5%	$1,174
23	Apparel or Related Prods.	174,220	0.5%	$1,176	2.0%	$6,752
44	Freight Forwarder Traffic	199,400	0.5%	$1,055	1.8%	$5,290
36	Electrical Equipment	143,240	0.4%	$863	1.5%	$6,027
33	Primary Metal Prods.	570,660	1.6%	$836	1.4%	$1,465
29	Petroleum or Coal Prods.	586,168	1.6%	$598	1.0%	$1,019
	Remaining Commodities	20,959,746	57.6%	$3,934	6.7%	$188
	Total	**36,390,217**	**100.0%**	**$58,405**	**100.0%**	**$1,605**

Source: Waybill 2013

Outbound/Intrastate

Combining outbound and intrastate rail movements, 42.8 million tons of freight, valued at $33.1 billion, originates in Florida. *Nonmetallic Minerals* and *Chemicals or Allied Products* comprise the large majority (73.7%, combined) of originating freight tonnage. However, the outbound/intrastate commodity with the largest value is within the *Miscellaneous Mixed Shipments* category, which is composed of predominately containers with a heterogeneous composition of goods. And, such undefined commodities are mapped into the economic model by allocating the value of such miscellaneous good movements across the various physical goods production within the existing economy.

Inbound

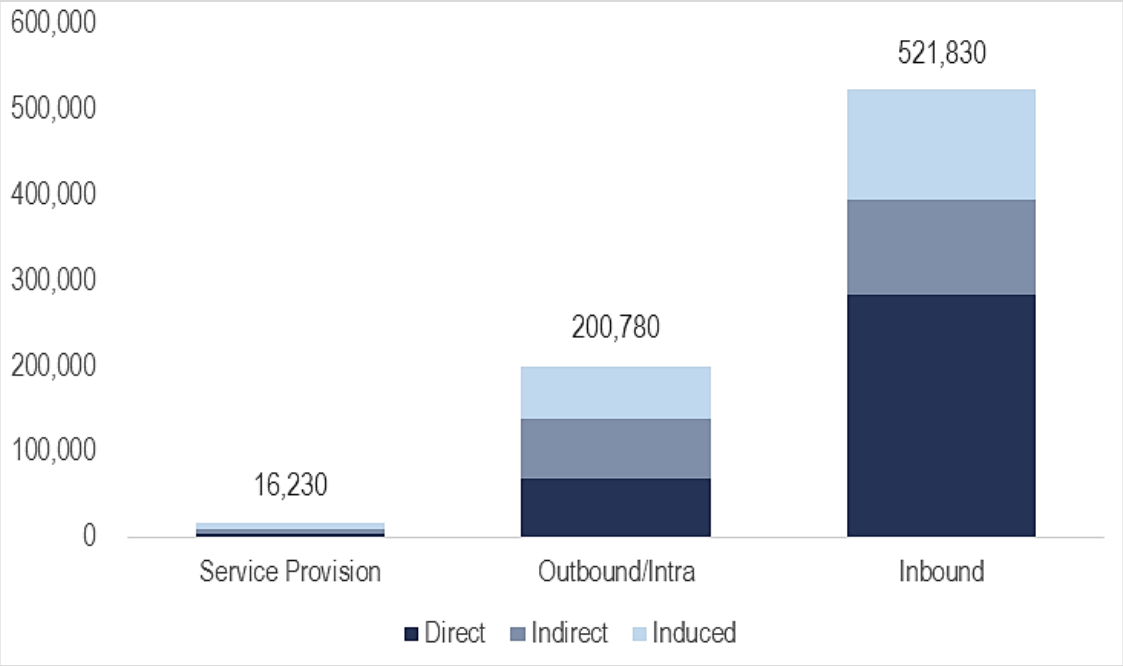
In 2013, 36.4 million tons were moved into Florida, valued at $58.4 billion. *Coal* is the largest commodity by volume, but due to the relatively low value/ton, it is not one of the top 10 inbound commodities by value. Similarly to outbound/intrastate movements, the largest economically-relevant inbound freight commodity by value is the *Miscellaneous Mixed Shipments*, comprising a third of all inbound value. Correspondingly, such non-defined commodities are reallocated to the various existing industries within Florida that absorb physical products into the production process, in proportion to the existing economic composition of imported physical products to the region. An additional third imported value via rail into Florida is comprised of *Transportation Equipment*.

G.3 FREIGHT RAIL ECONOMIC IMPACTS

Freight rail impacts almost 739,000 total jobs across Florida, reflecting both the provision and user activities and impact types (direct plus multipliers). A vast majority of these total employment impacts arise from rail users who move goods via the freight system (and the multiplier impacts associated with the direct freight

rail users), with the fractional balance attributable to freight transport services. Per the chart below, the employment impacts associated with inbound trade-users far surpasses the other impact activities.

Figure G-1: Rail Impact Employment Summary by Activity and Type



The ensuing discussion details the composition of the employment impact estimates, as well as the other impact measures (e.g., output, value-added, income, and taxes). Impact types (e.g., direct, indirect, and induced) and measures are first presented for freight transport-services, and then for freight users.

Table G-2: Rail Impacts, 2013

Measure and Type	Rail Service Provision	Freight Rail Users			Service and Trade
		Outbound/Intra	**Inbound**	**Trade Total**	
OUTPUT [1]					
Direct	$1,594	$27,051	$38,738	$65,789	$67,383
Indirect	$749	$12,478	$15,906	$28,384	$29,133
Induced	$762	$7,577	$16,157	$23,734	$24,496
Total	**$3,105**	**$47,168**	**$70,740**	**$117,907**	**$121,012**
EMPLOYMENT [2]					
Direct	4,990	67,950	283,870	351,820	356,810
Indirect	5,160	70,650	110,680	181,330	186,490
Induced	6,080	60,490	128,980	189,460	195,550
Total	**16,230**	**200,780**	**521,830**	**722,610**	**738,840**
LABOR INCOME [1]					
Direct	$539	$4,242	$12,173	$16,415	$16,954
Indirect	$273	$3,767	$5,122	$8,889	$9,162
Induced	$250	$2,490	$5,309	$7,799	$8,049
Total	**$1,062**	**$10,551**	**$22,552**	**$33,103**	**$34,165**
TOTAL VALUE ADDED [1]					
Direct	$668	$7,472	$20,106	$27,578	$28,246
Indirect	$401	$6,387	$8,697	$15,084	$15,486

Induced	$440	$4,376	$9,331	$13,707	$14,147
Total	**$1,509**	**$18,310**	**$38,060**	**$56,369**	**$57,879**
TAX ON PROD. AND IMPORTS [1]					
Direct	$11	$296	$2,562	$2,858	$2,869
Indirect	$35	$619	$784	$1,403	$1,439
Induced	$45	$444	$948	$1,392	$1,437
Total	**$91**	**$1,406**	**$4,247**	**$5,654**	**$5,745**

[1] In millions of 2013 dollars

[2] Employment rounded to the nearest ten job-years; and, totals may not sum due to rounding

Source: WAYBILL 2013

G.3.1 OUTBOUND/INTRASTATE

Combining outbound and intrastate rail movements, 42.8 million tons of freight, valued at $33.1 billion, originates in Florida. *Nonmetallic Minerals* and *Chemicals or Allied Products* comprise the large majority (73.7%, combined) of originating freight tonnage. However, the outbound/intrastate commodity with the largest value is within the *Miscellaneous Mixed Shipments* category, which is composed of predominately containers with a heterogeneous composition of goods. And, such undefined commodities are mapped into the economic model by allocating the value of such miscellaneous good movements across the various physical goods production within the existing economy.

G.3.2 INBOUND

In 2013, 36.4 million tons were moved into Florida, valued at $58.4 billion. *Coal* is the largest commodity by volume, but due to the relatively low value/ton, it is not one of the top 10 inbound commodities by value. Similarly to outbound/intrastate movements, the largest economically-relevant inbound freight commodity by value is the *Miscellaneous Mixed Shipments*, comprising a third of all inbound value. Correspondingly, such non-defined commodities are reallocated to the various existing industries within Florida that absorb physical products into the production process, in proportion to the existing economic composition of imported physical products to the region. An additional third of all imported value via rail into Florida is comprised of *Transportation Equipment*.

G.3.3 FREIGHT SERVICE PROVISION IMPACTS

Freight rail service provision-related impacts constitute about two to three percent of all Florida freight rail transport impacts.

- **Direct** – Freight rail providers yields a direct impact of 4,990 jobs, earning $539 million in labor income, producing $668 million in value-added activity, which equates to $1.6 billion in economic output; with taxes on such direct output equating to $11 million.
- **Total** – Including the Florida multiplier effects, transport service-related activity impacts total 16,230 jobs, earning $1.1 billion in labor income, who produce $1.5 billion in economic value-added, which equates to a total economic output of $3.1 billion, and yields a tax impact of $91 million to the state and federal governments.

G.3.4 FREIGHT USER IMPACTS

Many consignees and shippers heavily rely on freight rail services to receive and/or ship freight; in doing so, they generate significant impacts. While these firms/industries are not entirely dependent on rail for shipping freight (as alternative modes are available, such as trucking), it is hard to envision continued operations without such access.

If railroads did not accommodate demand, consignees and shippers could use other modes to transport freight. However, the use of other modes would likely entail higher transport costs (due to longer transport distances, price, logistics, etc.) and could increase overall transport demand (and resulting handling costs) for other modal users (both the diverted rail users as well as current users). The long-term result would be a migration of industry away from Florida to other locations with relatively better rail accessibility and better modal options/mix.

Impacts associated with rail tonnage movements requires an understanding of how the various inbound and outbound/intrastate commodities are used or produced by industries to generate output, income, and employment. To do so, the IMPLAN® commodity-to-industry matrices and other algorithms were applied to estimate direct outputs. Indirect and induced multipliers were then applied to the direct output estimates to derive other direct impacts (e.g., employment, income, etc.) and total economic impacts.

Freight rail user-related impacts can be traced to industries that ship (outbound/intrastate) and/or receive (inbound) freight via rail. Of these user impacts, the majority are attributable to inbound freight, as opposed to outbound (i.e., between 56% and 90% of the freight-user impacts are inbound-related, depending on impact measure and type considered).

Outbound/Intrastate

42.8 million tons of economically-relevant freight originating in Florida is either shipped via rail out-of-state or internally.[9] Combined, rail freight originating in Florida is valued at $33.1 billion and generates an estimated 200,780 total jobs.

Inbound

36.4 million tons of economically-relevant inbound freight (originating beyond Florida, terminating within) valued at about $58.4 billion are used by Florida industries and institutions to generate 521,830 total jobs. Inbound freight user impacts comprise final demand and intermediate demand. Final demand goods are distributed via wholesale or retail outlets, or through direct sales, with economic impacts stemming from the trade margins associated with the transfer of goods from suppliers to end-users. And, intermediately demanded physical commodities imported via rail are used/absorbed by Florida industries in their production processes based on relative commodity absorption patterns.

[9] excludes certain commodities/movements that pertain to waste and hazardous materials with no affiliated economic activity, as well as empty containers

Freight User Directional Overlap

Impact overlap issues arose between outbound/intra and inbound commodity conversion to economic impacts.[10] To avoid double-counting impacts, such potential overlaps were identified at an aggregate level and subtracted-out of the analysis to ensure conservative estimates. Such potential overlaps comprise between 5% and 19% of the total unadjusted freight user impacts, depending on the impact measure and type.

- **Direct** – Combining the directional components of freight users (and reflecting removal of the potential overlap) yields a direct subtotal impact of 351,820 jobs, earning $16.4 billion in labor income, producing $27.6 billion in value-added activity, which equates to $65.8 billion in economic output; with taxes on such direct output equating to $2.9 billion.
- **Total** – Including the multipliers, freight user activity impacts total 722,610 jobs, earning $33.1 billion in labor income, which produce $56.4 billion in economic value-added, which equates to a total economic output of $117.9 billion, and yields a tax impact of $5.7 billion to the state and federal governments.

G.3.5 TOTAL FREIGHT RAIL ACTIVITY IMPACTS

While the basic provision of freight rail services generates a modest 4,990 direct jobs (16,230 including multipliers), freight rail users generate 351,820 direct jobs.

- **Direct** – Combining the freight rail-related activities (service provision and users) yields a direct impact of 356,810 jobs, earning $17.0 billion in labor income, producing $28.4 billion in value-added activity, which equates to $67.4 billion in economic output; and yielding taxes on such direct output of $2.9 billion.
- **Total** – Including the multipliers, the impacts total 738,840 jobs, earning $34.2 billion in labor income, who produce $57.9 billion in economic value-added, which equates to a total economic output of $121.0 billion, and yields a tax impact of $5.7 billion.

Impacts as Percentage of Economy

It is important to contextualize the preceding economic impact estimates, as it is difficult to visualize millions of jobs and billions of dollars, etc. As such, the economic impacts are compared with the existing economic composition of Florida in 2013, by the same economic measures as the presented economic impacts, per **Table G-3**.

[10] As an example, when commodities, such as seed, are imported by a grain producer, the user impacts quantified allocate a share of the inbound seed to the grain industry and then estimate the industry-associated output. Potential overlap arises when the subsequent grain production is transported outbound by rail, since impacts are also estimated for outbound rail movements. So in effect, the output associated with the grain industry would be counted twice: once associated with the inbound movement of seed and fertilizer, and second with the outbound movement of grain.

Table G-3: Florida Economic Measures, 2013

Economic Measure	State Value	Total Impacts	
		Value	Percent of State
Employment	10,569,943	738,840	7.0%
Labor Income [1]	$487,082	$34,165	7.0%
Total Value Added [1]	$796,733	$57,879	7.3%
Output [1]	$1,392,532	$121,012	8.7%
Tax on Production and Imports [1]	$66,194	$5,745	8.7%

[1] *In millions of 2013 dollars.*

Source: IMPLAN®

Total economic impacts associated with freight rail in Florida range between 7.0% (employment) to 8.7% (economic output) of the statewide economy, depending on measure. Freight impact percentages compared to the overall state economy are shown in **Table G-4** by impact activity, measure, and type.

Table G-4: Impacts as Percentage of Florida Economy

Measure and Type	Rail Service Provision	Freight Rail Users			Service and Trade
		Outbound/Intra	Inbound	Trade Total	
OUTPUT					
Direct	0.11%	1.9%	2.8%	4.7%	4.8%
Indirect	0.05%	0.9%	1.1%	2.0%	2.1%
Induced	0.05%	0.5%	1.2%	1.7%	1.8%
Total	**0.22%**	**3.4%**	**5.1%**	**8.5%**	**8.7%**
EMPLOYMENT					
Direct	0.05%	0.6%	2.7%	3.3%	3.4%
Indirect	0.05%	0.7%	1.0%	1.7%	1.8%
Induced	0.06%	0.6%	1.2%	1.8%	1.9%
Total	**0.15%**	**1.9%**	**4.9%**	**6.8%**	**7.0%**
LABOR INCOME					
Direct	0.11%	0.9%	2.5%	3.4%	3.5%
Indirect	0.06%	0.8%	1.1%	1.8%	1.9%
Induced	0.05%	0.5%	1.1%	1.6%	1.7%
Total	**0.22%**	**2.2%**	**4.6%**	**6.8%**	**7.0%**
TOTAL VALUE ADDED					
Direct	0.08%	0.9%	2.5%	3.5%	3.5%
Indirect	0.05%	0.8%	1.1%	1.9%	1.9%
Induced	0.06%	0.5%	1.2%	1.7%	1.8%
Total	**0.19%**	**2.3%**	**4.8%**	**7.1%**	**7.3%**
TAX ON PROD. AND IMPORTS					
Direct	0.02%	0.4%	3.9%	4.3%	4.3%
Indirect	0.05%	0.9%	1.2%	2.1%	2.2%
Induced	0.07%	0.7%	1.4%	2.1%	2.2%
Total	**0.14%**	**2.1%**	**6.4%**	**8.5%**	**8.7%**

Source: WAYBILL, 2013 and IMPLAN®

Employment Impacts

Industry visualization of aggregate job measure composition (rail service providers and users) enables perspective of how rail freight affects the State economy.

- **Direct Employment** – Nearly half of the job impacts are direct (356,810 jobs), led by Retail Trade and Manufacturing.

- **Multiplier Employment** – The other job indirect and induced (i.e., multiplier) jobs reflect the supplier impacts and the re-spending of earnings:
  - Indirect – Supplier impacts account for 186,490 jobs, led by Administrative/Waste Services (30,330 jobs) and Professional-Scientific and Tech Services (22,310).
  - Induced – Respending impacts account for 195,550 jobs, led by Health and Social Services (36,790 jobs) and Retail Trade (27,410).

- **Total Employment** – The total 783,840 job impacts comprise 7.0% of Florida's total 10.6 million jobs. Regarding the five most impacted industries:
  - Retail Trade – Heavily reflects direct impacts (67.5%).
  - Manufacturing – Predominantly reflects direct impacts (87.0%).
  - Accommodation and Food Services – Mostly reflects direct impacts (62.2%), with Notable induced share as well (29.7%).
  - Health and Social Services – Split between direct (46.5%) and indirect (53.1%).
  - Administrative and Waste Services – Half the impacts reflect indirect activity.

These annual job impacts are shown by industry and impact type in **Figure G-2** and **Table G-5**. The key point is that rail transport impacts industries differently. Whereas some are directly impacted (*Retail* and *Manufacturing*), others are primarily impacted indirectly (*Administration and Waste Services*) or through the respending of income (i.e., *Health and Social Services*).

Figure G-2: Job Implementation Impacts by Industry and Measure

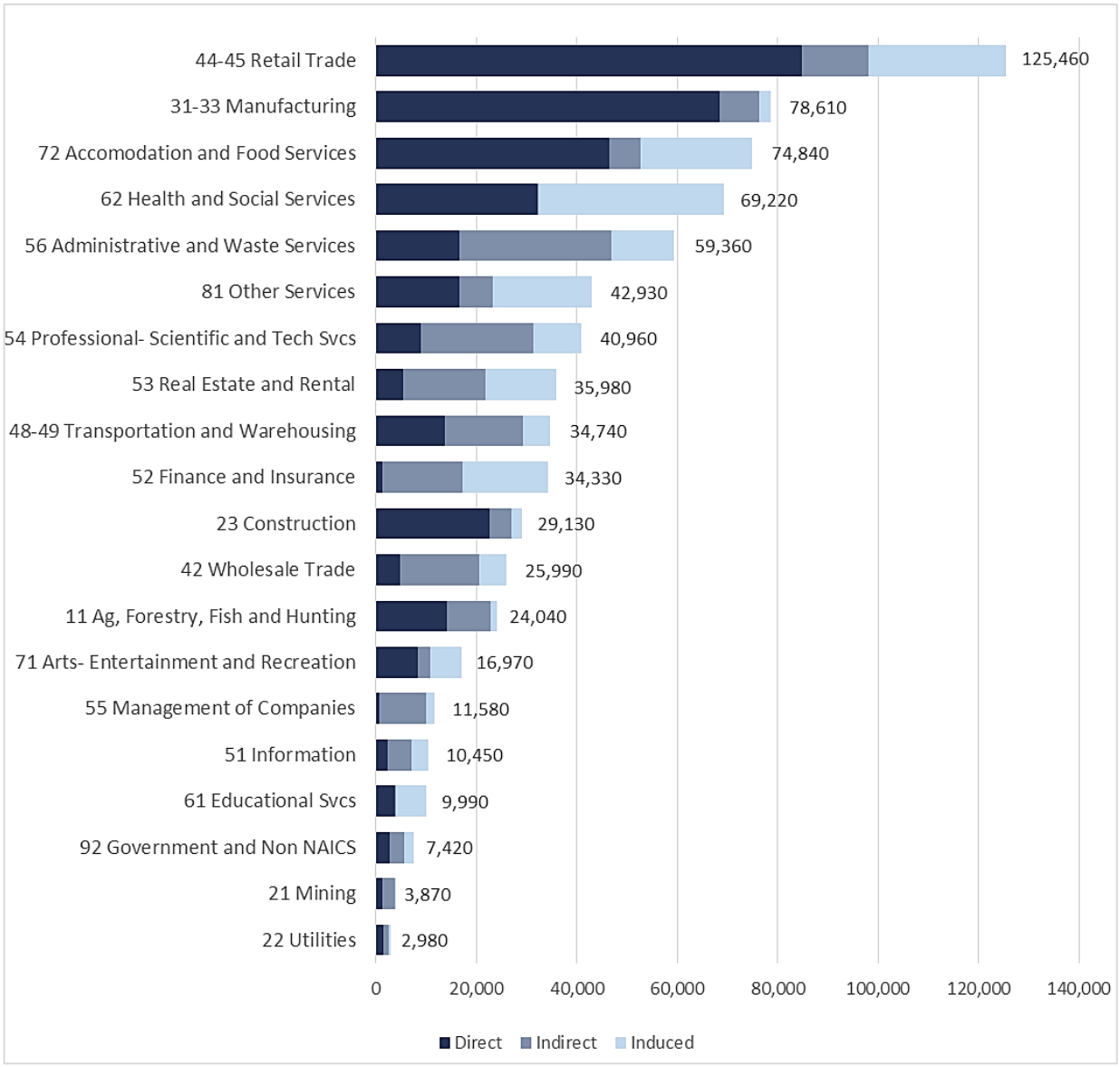


Table G-5: Rail Employment Impacts by Industry

Industry Description	Direct	Indirect	Induced	Total
44-45 Retail Trade	84,710	13,340	27,410	125,460
31-33 Manufacturing	68,370	8,000	2,240	78,610
72 Accommodation and Food Services	46,540	6,040	22,260	74,840
62 Health and Social Services	32,170	260	36,790	69,220
56 Administrative and Waste Services	16,560	30,330	12,470	59,360
81 Other Services	16,610	6,730	19,590	42,930
54 Professional- Scientific and Tech Svcs	8,980	22,310	9,670	40,960
53 Real Estate and Rental	5,470	16,400	14,110	35,980
48-49 Transportation and Warehousing	13,810	15,540	5,390	34,740
52 Finance and Insurance	1,360	15,870	17,100	34,330
23 Construction	22,720	4,360	2,050	29,130
42 Wholesale Trade	4,830	15,730	5,430	25,990
11 Ag, Forestry, Fish and Hunting	14,130	8,680	1,230	24,040
71 Arts- Entertainment and Recreation	8,400	2,410	6,160	16,970
55 Management of Companies	720	9,230	1,630	11,580
51 Information	2,280	4,740	3,430	10,450
61 Educational Svcs	3,690	250	6,050	9,990
92 Government and Non NAICS	2,750	2,840	1,830	7,420
21 Mining	1,290	2,390	190	3,870
22 Utilities	1,420	1,040	520	2,980
Total	**356,810**	**186,490**	**195,550**	**738,840**

[1] *In millions of 2013 dollars*

[2] *Employment rounded to the nearest ten job-years; and, totals may not sum due to rounding*

Source: WAYBILL, 2013 and IMPLAN®

G.4 SUMMARY

Freight rail facilitates the movement of goods, and such movements are associated with economic activity, reflecting the reallocation of intermediate goods for production and final goods for consumption. Economic impact metrics of such freight rail movements are captured by tracing the movement volumes, translated into applicable values through the various interrelationships within the economy.

As the freight volumes are translated into economic impacts, the analysis demonstrates that rail activities provide a vital role in Florida's economy. Such economic impact analysis provides a complementary perspective for traditional freight-related analysis that predominately emphasizes the volume (units and/or tons) of the movements and the capacity of the transportation route.

An economic analysis amends such traditional freight analysis by supplying an alternative means to assess the relative importance of freight rail. In instances, the volume of a certain commodity movement is substantial and would thus be considered relevant from a traditional freight analysis perspective; however, that same high-volume movement may be a low-value (per weight) commodity with little economic relevance (e.g., certain waste material movements). Consequently, not all traditionally-assessed freight movements (from a volume perspective) would be considered equally relevant, as compared with other freight movements observed from an economic perspective. In effect, volumes do not always translate into relevant values, and into direct economic impacts (and thus, into total impacts, reflective of multiplier effects as economic activity permeates through the economy).

Impacts, as measured in terms such as: employment, income, value added, and output, span all industries and reach every region of the state:

- **Employment** – Economic impacts of rail extend beyond the 4,990 directly employed in the provision of freight rail transport. When the freight user impact activities and multiplier impacts are included, rail-related employment in Florida totals 738,840 jobs, which represent 7.0% of the 10.6 million jobs statewide.
- **Income** – $34.2 billion earned by these total impacted employees represent 7.0% of Florida's total labor income.
- **Value-Added** – And, the combined value-added impact, $57.9 billion, associated with the rail services and users represent 7.3%of the state's Gross State Product (GSP).

While it would be erroneous to conclude that all of these impacts are entirely and solely dependent on rail, and would disappear if rail completely disappeared (assuming absolutely no modal substitutability), the findings do show that that rail service facilitates business throughout the state. Specifically, these impacts highlight the magnitude of freight rail use by manufacturers across the state, as well as dealers, retailers, and others who transport materials, component parts, and products.

In conclusion, the rail industry provides some economic activity in itself; but it also facilitates far more economic activity via the services rendered to people and industries, particularly by enabling the movement of goods necessary to conduct economic pursuits.

APPENDIX H: ECONOMIC IMPACTS OF PASSENGER RAIL

H.1 INTRODUCTION

Economic impacts of rail activity in Florida emanate from firms providing rail transportation services, industries that use such services to trade goods, and passenger users (visitors to Florida via rail). Of these activities, freight-users generate the most significant impacts.

In terms of passenger rail-related impacts, transport providers (e.g., Amtrak) and users (visitors to Florida via rail) create direct economic impacts through rail operations and tourist expenditures, respectively. Further, indirect impacts associated with suppliers, and induced impacts associated with the re-spending of income, are also quantified. Combined, the direct, indirect, and induced comprise total economic impacts, with each measured in terms of employment, income, value-added (i.e., Gross State Product), output, and taxes. The following section outlines methodology, input data and assumptions, and findings.

H.1.1 APPROACH AND DATA SOURCES

The analysis approach follows generally-accepted standards by identifying and categorizing the range of economic impacts directly and tangentially related to passenger rail transportation. The following subsection outlines this methodology, data sources, economic model, and the applied assumptions for passenger movements.

H.1.2 IMPACT APPROACH AND TERMINOLOGY

Economic impacts of passenger rail are categorized into two broad activities: transport service-providers, and transport users. For each activity, three types are quantified: direct, indirect, and induced. And for each type, five measures are derived: jobs (employment), income, value-added, output, and taxes. Activities, types, and measures are defined below.

H.1.3 ACTIVITIES

Florida passenger rail-related economic impacts are categorized into service-provider and user impacts.

- **Transport-Service Providers** – Impacts associated with the provision of rail transport (e.g., the rail industry) include a wide range of modal transport and administrative support. Service provider impacts are based on existing transportation industry information in the IMPLAN® model (e.g., "transport by rail") and direct information from the carriers. Service provision impacts are calculated for intercity passenger rail (Amtrak); tourist-oriented rail services (the Florida Railroad in Manatee County, the Gold Coast Railroad in Miami-Dade, the Tavares, Eustis, and Gulf Railroad in Lake

County, and the Seminole Gulf Railroad in Lee County); and, commuter rail services (SunRail in Orlando and Tri-Rail in southeast Florida).

- **Transport Users** – Economic impacts arise in industry sectors that service visitors to Florida who arrive by passenger rail (i.e., Amtrak). Rail visitors have several transport options and could possibly substitute other modal transport (highway and/or air) if rail services became unavailable. However, the choice to travel via Amtrak indicates cost, convenience and/or amenity advantages, and as such, removal of such advantages would negatively affect rail users and the industries serving them. In addition to Amtrak out-of-state passengers, the impacts related to similar passengers for the tourist-related route within the state are also quantified.

H.1.4 TYPES

Transport-services and users each consist of three types (and a combined total):

- **Direct** – Impacts from the provision of passenger rail transport (i.e., "transport-services"), as well from the firms/industries that accommodate out-of-state visitors who travel by rail to Florida (i.e., "transport users").
- **Indirect** – Impacts associated with the suppliers that provide intermediate goods and services to the directly impacted industries.
- **Induced** – Impacts associated with the re-spending of earned income from both the direct and indirect industries in the study area.[11]
- **Total** – Aggregated direct, indirect, and induced types.

H.1.5 MEASURES

Each type is measured in terms of five economic metrics:[12]

- **Jobs/Employment** – Measured in terms of full-time-equivalent (FTE) job-years.
- **Income** – Wage/salary earnings paid to the associated jobs.
- **Value-Added** – Net additional economic activity (i.e., total output less gross intermediate inputs), synonymous with GRP (gross regional product); includes employee and proprietor income, other income types, taxes, etc., required to produce final goods and services.
- **Output** – Total sales value associated with all levels of economic activity (comprised of gross intermediate inputs and value added, combined).
- **Taxes – Various taxes on production and imports (sales, property, excise, etc.),** fines, fees, licenses, permits, etc., resulting from business economic activity.

[11] Note, indirect and induced impact types are often referred to, jointly, as multiplier impacts.

[12] Note that all monetary measures are presented in constant 2013 dollars terms (i.e., income, value-added, output, and taxes).

H.1.6 IMPLAN ECONOMIC MODEL

Passenger related rail impacts are based on assumptions regarding passenger rail operations and visitor spending patterns applied to the IMPLAN ® economic model.

The IMPLAN ® v3 model, produced by the IMPLAN ® Group, LLC, is an economic modeling, input-output based, social account matrix software. It is used to estimate the economic impacts to a defined geography (i.e., Florida) ensuing from expenditures in an industry or commodity.[13] A social account matrix reflects the economic interrelationships between the various industries (and commodities), households, and governments in an economy and measures the economic interdependency of each industry on others through impact multipliers. Multipliers are developed within IMPLAN ® from regional purchase coefficients, production functions, and socioeconomic data for each of the economic impact variables and are geographically-specific. IMPLAN ® data and industry-accounts closely follow the conventions used in the "Input-Output Study of the U.S. Economy" by the U.S. Bureau of Economic Analysis. IMPLAN ® is one of the most commonly accepted models used for economic impact analysis and estimation throughout the country.

H.2 PASSENGER RAIL DATA AND ASSUMPTIONS

Various data sources used include: Amtrak, tourist rail operator interviews, rail industry journals, annual reports, IMPLAN ®, Florida Statewide Visitor Profiles, recorded user experiences, and internet sources. Data sought included passengers (as well as boardings and alightings), employment, revenues, operating expenses, visitor characteristics (percent of passengers, average expenditures), etc. Such information was used to estimate direct transport-service and transport-user impacts input into the IMPLAN ® model.

H.2.1 PASSENGER TRANSPORT SERVICES

IMPLAN ® industry data provides various economic measures associated with the direct provision of rail transport in Florida (e.g., employment, output, etc.). Unfortunately, such data are not subcategorized by passenger versus freight transport. As such, to estimate the passenger share of direct transport service impacts required evaluation of the Amtrak "Fact Sheets" for Florida in year 2013, which provide total employment and labor income for Amtrak passenger rail transport service.[14] Such Amtrak data exclude any freight transport activity and are comparable to a couple industry sectors in IMPLAN ®: rail transportation and other federal government enterprises.

Given the Amtrak Fact Sheet specifications of annual employment and income, the 780 full-time equivalent (FTE) jobs were proportionally spit between the respective IMPLAN ®-applicable sectors. The 30 tourist rail FTE job estimates were applied to *Scenic and Sightseeing Transportation* sector of the IMPLAN® model. Commuter rail employment for Tri-Rail (120 FTE) was culled directly from the annual financial reports. SunRail direct employment was estimated (at 40 FTE) from relative operational size compared with Tri-Rail, given that publically-available information was not yet available for the newly-instituted service. Commuter rail was input into the transit and ground passenger transportation industry sector in the IMPLAN model. Such operational characteristics are summarized below in **Table H-1**.

[13] Note that all results presented pertain only to one-year static impacts for year 2013 (in year 2013 values), and do not provide any dynamic or feedback changes.

[14] Amtrak Fact Sheet, Fiscal Year 2013; State of Florida. Retrieved from: http://www.amtrak.com/pdf/factsheets/FLORIDA13.pdf.

Table H-1: Passenger Rail Operations

Type/Service	Location	FTE	Passengers
INTERCITY RAIL			
Amtrak	Statewide	780	1,120,959
TOURIST RAIL			
Florida RR	Manatee Co.	4.5	40,000
Gold Coast	Miami-Dade Co.	5.5	90,000
Tavares, Eustis, and Gulf	Lake Co.	11	24,000
Seminole Gulf	Lee Co.	9	26,500
	Subtotal	**30**	**180,500**
COMMUTER RAIL			
SunRail	Orlando	40	1,300,000
Tri-Rail	South Florida	120	4,389,600
	Subtotal	**160**	**5,689,600**
TOTAL PASSENGER RAIL			
	Total	**970**	**6,991,059**

Sources:
Amtrak; http://www.amtrak.com/pdf/factsheets/FLORIDA13.pdf
Tourist Rail operator interviews
SunRail article in Trains, July, 2015
Tri-Rail annual passenger data, https://en.wikipedia.org/wiki/Tri-Rail#Ridership_records
Tri-Rail employment, revenue and expenses, http://www.sfrta.fl.gov/docs/overview/CAFR-FYE-2014-FINAL.pdf
South Florida Regional Transportation Authority - Comprehensive Annual Financial Report, http://www.sfrta.fl.gov/docs/overview/CAFR-FYE-2014-FINAL.pdf
IMPLAN® model
CDM Smith

H.2.2 PASSENGER VISITOR EXPENDITURES

Out-of-state visitor expenditures reflect Amtrak passengers arriving in Florida (information culled from the Amtrak Fact Sheets) and corresponding out-of-state users of the tourist rail lines. Such information, in conjunction with visitor profiles and consultant experience, is used to estimate the share of rail passenger movements that are visitors (i.e., out-of-state) and average visitor spending.

Florida Amtrak annual passenger movements totaled 1.1 million in 2013. Since each passenger typically embarks (boards) and disembarks (alights), it is necessary to divide total passenger movements by two to estimate the actual number of Amtrak passengers (560,480). It is estimated that more than half (57%) of the boarding passengers are out-of-state visitors. Assuming an average expenditure visit duration of 5 days and daily expenditure of $220, total Amtrak visitor expenditure to Florida is estimated at $348.9 million, as summarized in **Table H-2**.

Discussion with the four tourist-rail operators were used to estimate the total number of passengers (180,500), out-of-state visitor share (30%) versus Florida residents, and typical daily expenditures. Since tourist-rail experiences tend to comprise a significant portion of the day, each visitor's impact was estimated for the entire day; however, any other visitor days to the region were not credited to tourist-rail. Daily expenditures were estimated to vary between a low of $125 (TE and Gulf) to a high of $250 (Seminole Gulf) based on operator interviews, location, and statewide visitor profiles. Resultant annual tourist-rail direct visitor impact expenditures are estimated at $10.6 million.

Commuter rail operations predominantly serve residents, and any visitors using commuter rail do so for local transit purposes. Visitors do not travel to Florida from other states by commuter rail, nor do they seek commuter rail as a tourist destination. For these reasons, no visitor impacts are quantified for commuter rail.

Table H-2: Passenger Rail Visitor Expenditures

Service Type	Intercity	Tourist					Total
Railroad	Amtrak	Florida RR	Gold Coast	TE and Gulf	Seminole Gulf	**Subtotal**	
Location	Statewide	Manatee	Miami-Dade	Lake Co.	Lee Co.		
ANNUAL PASSENGERS							
Boardings	560,480	40,000	90,000	24,000	26,500	180,500	
Alightings	560,480	40,000	90,000	24,000	26,500	180,500	
Total Movements	**1,120,959**	**40,000**	**90,000**	**24,000**	**26,500**	**180,500**	**1,301,459**
VISITORS (OUT-OF-STATE)							
Percent	56.6%	30%	30%	35%	25%	30%	
Number	317,175	12,000	27,000	8,400	6,625	54,025	371,200
Expenditures/Day	$220	$150	$225	$125	$250	$195.86	
Days Visited	5	1	1	1	1	1	
Visitor Expenditure (million)	**$348.9**	**$1.8**	**$6.1**	**$1.1**	**$1.7**	**$10.6**	**$359.500**

Sources:
Amtrak; http://www.amtrak.com/pdf/factsheets/FLORIDA13.pdf
Tourist Rail operator interviews
SunRail article in Trains, July, 2015
Tri-Rail annual passenger data, https://en.wikipedia.org/wiki/Tri-Rail#Ridership_records
Visitor Profile and Economic Impact Study, 2009; ttp://global.miamiandbeaches.com/pictures/WebRpt/Annual%202009%20Visitor%20Profile.pdf
Implan® model CDM Smith

H.3 PASSENGER RAIL ECONOMIC IMPACTS

Passenger rail impacts of 9,420 total jobs across Florida, reflecting the various impact activities and types (direct plus multipliers). A majority (68%) of these total employment impacts arise from rail users (i.e., visitors) expenditures on various activities such as entertainment, lodging, food, etc. The remaining service provision impacts reflect the intercity, tourist, and commuter rail transport activities. The other major take-away is that 95% of the impacts are associated with intercity rail transport (combining both service provision and user activities).

The ensuing discussion details estimated impact types (e.g., direct, indirect, and induced) and measures by activity (e.g., transport-services, visitor users). These impact activities, measures, and types are presented in **Table H-3**.

Table H-3: Passenger Rail Impacts, 2013

Measure and Type	Transport Service (Provision) Impacts				Transport Users (Visitor) Impacts			Total
	Intercity	Tourist	Commuter	Subtotal	Intercity	Tourist	Subtotal	
OUTPUT [1]								
Direct	$235.3	$4.4	$11.7	$251.4	$298.0	$7.6	$305.6	$557.0
Indirect	$169.6	$2.3	$5.0	$177.0	$121.4	$3.1	$124.5	$301.5
Induced	$103.7	$2.4	$7.1	$113.2	$155.3	$3.9	$159.1	$272.3
Total	**$508.7**	**$9.1**	**$23.8**	**$541.5**	**$574.7**	**$14.5**	**$589.2**	**$1,130.7**
EMPLOYMENT [2]								
Direct	780	30	160	970	4,150	100	4,260	5,230
Indirect	1,060	20	40	1,120	880	20	900	2,020
Induced	830	20	60	900	1,240	30	1,270	2,170
Total	**2,660**	**70**	**260**	**2,990**	**6,270**	**160**	**6,430**	**9,420**
LABOR INCOME [1]								
Direct	$53.1	$1.6	$5.7	$60.4	$125.9	$3.1	$129.0	$189.5
Indirect	$57.4	$0.9	$1.9	$60.2	$39.6	$1.0	$40.6	$100.8
Induced	$34.1	$0.8	$2.3	$37.2	$51.0	$1.3	$52.3	$89.5
Total	**$144.6**	**$3.3**	**$9.9**	**$157.8**	**$216.5**	**$5.4**	**$221.9**	**$379.8**
TOTAL VALUE ADDED [1]								
Direct	$76.8	$2.2	$7.0	$85.9	$182.8	$4.7	$187.5	$273.4
Indirect	$85.6	$1.3	$2.7	$89.6	$67.3	$1.7	$69.0	$158.6
Induced	$59.9	$1.4	$4.1	$65.4	$89.7	$2.2	$91.9	$157.3
Total	**$222.3**	**$4.9**	**$13.7**	**$240.9**	**$339.8**	**$8.6**	**$348.4**	**$589.3**
TAX ON PROD. AND IMPORTS [1]								
Direct	-$4.9	$0.1	$0.4	-$4.5	$27.9	$0.8	$28.7	$24.2
Indirect	$5.7	$0.1	$0.2	$6.0	$5.8	$0.1	$6.0	$12.0
Induced	$6.1	$0.1	$0.4	$6.6	$9.1	$0.2	$9.3	$16.0
Total	**$6.9**	**$0.3**	**$1.0**	**$8.1**	**$42.9**	**$1.2**	**$44.1**	**$52.2**

[1] in millions of 2013 dollars

[2] employment rounded to the nearest ten job-years; and, totals may not sum due to rounding

Source: CDM Smith, based on IMPLAN® data

H.3.1 PASSENGER SERVICE PROVISION IMPACTS

Provisioning passenger rail transportation to Florida yields a direct employment impact of 970 jobs, comprised of 780 Amtrak-related (intercity), 30 tourist-related, and 160 commuter-related.

- **Direct** – Passenger rail providers yields a direct impact of 970 jobs, earning $60.4 million in labor income, producing $85.9 million in value-added activity, which results in $251.4 million in economic output; with taxes on such direct output totaling a negative $4.5 million (which, in effect, is a net government subsidy to the rail service).

- **Total** – Including the Florida multiplier effects, transport service-related activity impacts total 2,990 jobs, earning $157.8 million in labor income, producing $240.9 million in economic value-added, which equates to a total economic output of $541.5 million, and yields a net positive tax impact of $8.1 million to the state and federal governments (entirely supported by the indirect and induced-impacted industries).[15]

H.3.2 VISITOR IMPACTS

Passenger-related impact activities reflect expenditures within the region by out-of-state visitors, based on Amtrak and tourist-rail passenger movements and assumptions regarding visitors (versus residents), average length of stay, average visitor expenditure per day, and an allocation to various expenditure categories (e.g., retail purchases, ground transportation, entertainment and recreation, lodging, and food purchases). A majority of the visitor-related impact stem from the intercity/Amtrak visitors rather than the much smaller order-of-magnitude tourism-related rail.

Combining the intercity and tourism-related passenger users yields the following impacts:

- **Direct** – Passenger visitors/users yield a direct impact of 4,260 jobs, earning $129.0 million in labor income, producing $187.5 million in value-added activity, which results in $305.6 million in economic output; with taxes of $28.7 million.

- **Total** – Including the multipliers, transport user-related activity impacts total 6,430 jobs, earning $221.9 million in labor income, producing $348.4 million in economic value-added, which results in $589.2 million total economic output, and yields a tax impact of $44.1 million to the state and federal governments.

H.3.3 TOTAL PASSENGER RAIL ACTIVITY IMPACTS

Basic provisioning of passenger rail service generates a modest 970 direct jobs (2,990 including multipliers), while rail visitors/users generate 4,260 direct jobs (6,430 including multipliers).

- **Direct** – Combining the passenger rail-related activities yields a direct impact of 5,230 jobs, earning $189.5 million in labor income, producing $273.4 million in value-added activity, which equates to $557.0 million in economic output; and yields taxes on such direct output of $24.2 million.

[15] The negative tax impact (-$4.9 million) associated with the provision of intercity rail is offset by the indirect and induced tax impacts ($5.7 million and $6.1 million, respectively).

- **Total** – Including the multipliers, the passenger rail-related activities total 9,420 jobs, earning $379.8 million in labor income, producing $589.3 million in economic value-added, which equates to a total economic output of $1.13 billion, and yields a tax impact of $52.2 million.

Impacts as Percentage of Economy

It is important to contextualize the preceding economic impact estimates, as it is difficult to visualize such jobs and millions/billions of dollars, etc. As such, the economic impacts are compared with the existing economic composition of Florida in 2013, by the same economic measures as the presented economic impacts, per **Table H-4**. The impacts in all cases are less than a 10th of one percent.

Table H-4: Florida Economic Measures, 2013

Economic Measure	State Value	Total Impacts	
		Value	Percent of State
Employment	10,569,943	9,420	0.09%
Labor Income [1]	$487,082	$379.8	0.08%
Total Value Added [1]	$796,733	$589.3	0.07%
Output [1]	$1,392,532	$1,130.7	0.08%
Tax on Production and Imports [1]	$66,194	$52.2	0.08%

[1] in millions of 2013 dollars

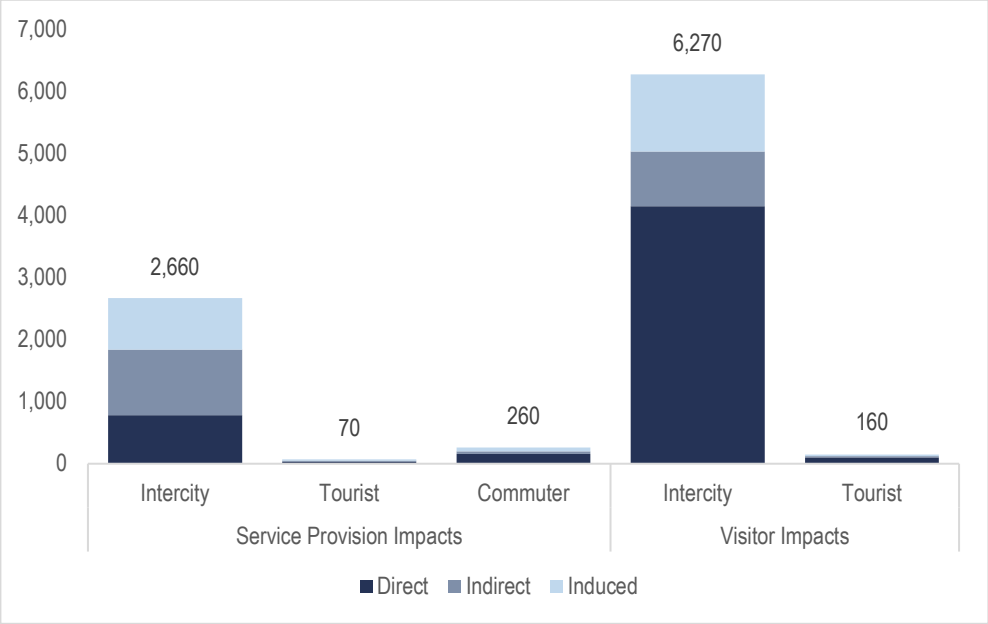
Source: IMPLAN®

Total economic impacts related to passenger rail movements in Florida are fairly miniscule in the context of the Florida-wide economy, measuring less than 0.1% of the statewide economy for each of the impacts measures.

Employment Impacts

As the most digestible impact measure, employment provides the best measure to illustrate the scope and magnitude of impacts by activity and type. **Figure H-1** illustrates the impact variability between rail transport users (visitors) and service providers. Interestingly, the direct impacts associated with intercity passenger expenditures dominates compared to the other impact activities and types.

Figure H-1: Employment Impacts by Activity and Type



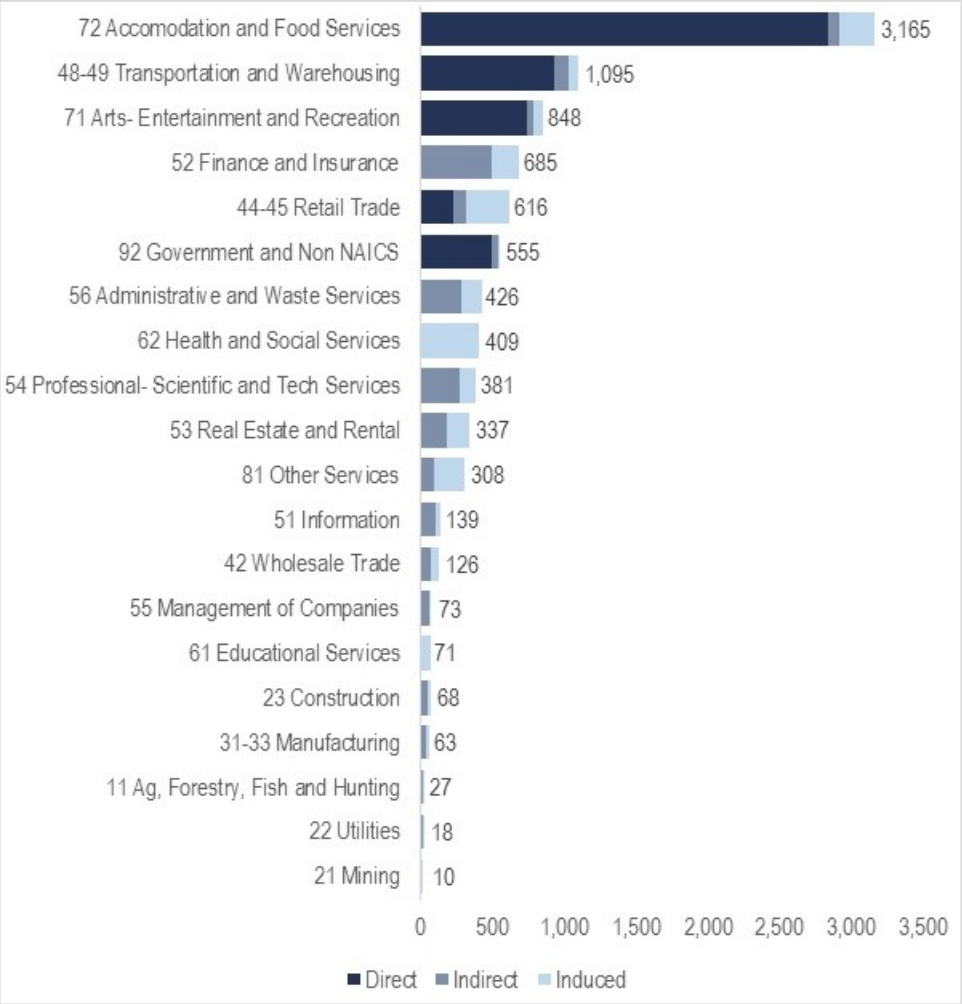
H.3.4 EMPLOYMENT BY INDUSTRY

Resultant employment impacts by industry and type shown in **Figure H-2** further illustrate the relative impacts associated with direct visitor expenditures.[16] A third of total employment impacts occur in *Accommodation and Food Services* (3,165), the vast majority of which (90%, 2,835) are direct impacts. Direct *Transportation and Warehousing* generate another 935 jobs, with total industry employment impacts of 1,095 when including multiplier impacts. The third major industry affected by rail passenger is *Arts-Entertainment and Recreation* with 848 total jobs, of which 740 are direct.

Interestingly, the fourth major industry, in terms of employment impacts is *Finance and Insurance*; of the total 685 jobs, none are direct. This illustrates how rail passenger service effects other industries one might not associate with rail passenger transport, with most reflecting indirect supplier (e.g., services) impacts. Additionally, induced *Health and Social Services* employment impacts (409 jobs) reflects the re-spending of direct and indirect income.

[16] Industries shown reflect the North American Industry Classification System, or NAICS, at the two-digit industry aggregation level.

Figure H-2: Employment Impacts by Industry and Type



H.4 SUMMARY

Passenger rail facilitates the movement of people and supports Florida tourism. Both the physical movements and tourism spending are captured by economic impacts. Of the rail activities analyzed, passenger-related economic impacts are relatively insignificant in comparison to the overall statewide economic activity. As with the freight-related impact analysis results, the impacts associated with the rail users (i.e., visitors) exceed the provisioning-related impacts.

APPENDIX I: COMMODITY FLOWS AND FORECAST

I.1 APPROACH

Significant freight volumes traverse Florida's rail infrastructure annually. Such freight includes finished goods, materials, and supplies. Principal freight rail issues concern the identification of movements most important to Florida, and the options to facilitate/support such movements. Identifying the importance of, and solutions for, freight rail comprises several perspectives, including: volumes (especially compared to capacity), values, related economic impacts, and public perception.

In this analysis, current freight rail volumes, as reported in the United States Surface Transportation Board (STB) RAILROAD WAYBILL SAMPLE database, are tabulated by major commodity types to understand freight movements and facilitate subsequent freight-related economic impact analysis (see Appendix E). Forecast freight movements are derived from a second source: TRANSEARCH®, which is a privately-developed database by IHS/Global Insight.

I.1.1 COMMODITY CLASSIFICATION

The Standard Transportation Commodity Code (STCC) is a seven-digit numeric code, categorized by 40 commodity groupings, based on physical product information used on shipping documents and published/maintained by the Association of American Railroads (AAR). A hierarchical STCC structure allows for data collapsibility, enabling summarization of commodity information[17]. Although freight movements are tallied at the seven-digit STCC detail, the information summarizedat the aggregated two-digit level.

I.1.2 FREIGHT MOVEMENT DATA SOURCES

The WAYBILL SAMPLE and TRANSEARCH® are used to estimate current and future freight volumes and values.

- *WAYBILL SAMPLE (WS)* – Based on STCC codes[18], the WAYBILL provides detailed, most-recently available year 2013 movement data by commodity. It uses a 2% stratified sample by the STB CARLOAD WAYBILL SAMPLE of carload waybills for all rail traffic submitted by rail carriers that terminate 4,500 or more revenue carloads annually.
- *TRANSEARCH®* – Developed by IHS Global Insight, TRANSEARCH® is a comprehensive database of North American freight flows, compiled from more than a hundred industry, commodity, and

[17] For example, '01' represents 'Farm Products', '011' identifies 'Field Crops,' '0112' indicates 'Raw Cotton', etc., narrowing in specificity to a seven-digit level.

[18] STB WAYBILL designates freight rail movements via two STCC conventions: one includes the 49xxxxx (HAZMAT-related) and 50xxxxx (bulk movements) STCC designations, the alternative translates those HAZMAT- and bulk-related movements into actual product STCC. Summary data herein pertains to the non-HAZMAT/non-bulk STCC convention.

proprietary data sources. TRANSEARCH® combines primary shipment data obtained from the nation's largest rail and truck freight carriers with information from public, commercial, and proprietary sources to generate a base year estimate of freight flows at the county level. Further, TRANSEARCH® establishes market-specific production volumes by industry or commodity, drawn mostly from IHS Global Insight's Business Markets Insights (BMI) database, and supplemented by trade association and industry reports, and U.S. government-collected data – especially from the Input/Output (I/O) Tables produced by the Bureau of Economic Analysis (BEA). Growth rates between TRANSEARCH®-reported year 2011 and forecast year 2040 by directional commodity movement were applied to the more-recent year 2013 WAYBILL movements to derive updated forecasts for 2040.

I.1.3 VALUES

Dollar values of the freight rail movements are not incorporated within the WAYBILL SAMPLE; therefore, values per ton (in 2013 dollars), culled from comparable TRANSEARCH® recent annual data in Florida and surrounding state geographies, were applied to the tonnage movements to derive directional-based values of freight moving across the Florida rail network.

I.2 CURRENT FREIGHT RAIL

The following presents year 2013 movements by direction (outbound, inbound, intrastate, and through) and terms (tons, carloads, and values), derived from the STB WAYBILL database. Each subsection summarizes rail movements by direction and term, and identifies the top two-digit STCC commodity movements. Data is mostly presented graphically for ease of visually identifying important commodity movements and related observations, with the supporting tabulated comprehensive data located in **Table 66** through **Table 73** at the end of this Appendix.

I.3 SUMMARY

Florida rail movements in 2013 totaled 89.2 million tons, valued at $93.9 billion (equating to $1,054/ton), and carried within 1.7 million units (see **Table I-1**). As depicted in

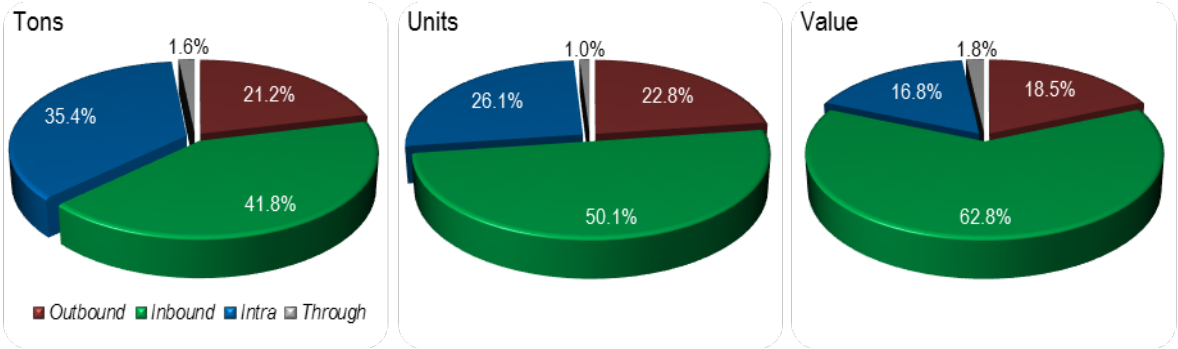
Figure I-1, inbound rail is the dominant directional movement: 41.8% of total tonnage, 50.1% of units, and 62.8% of value. Intrastate is the second largest directional movement by tons and units, although outbound movements are the second by value. Given that Florida is a peninsula, it is unsurprising that through movements constitute a marginal proportion of the total Florida-related rail movements.

Table I-1: Rail by Direction, 2013

Direction	Tons		Units		Value (in millions)		Average Value/Ton
	Amount	Percent	Amount	Percent	Amount	Percent	
Outbound	18,914,481	21.2%	388,454	22.8%	$17,405	18.5%	$920
Inbound	37,222,277	41.8%	853,896	50.1%	$59,036	62.8%	$1,586
Intra	31,549,885	35.4%	446,005	26.1%	$15,778	16.8%	$500
Through	1,465,660	1.6%	17,413	1.0%	$1,724	1.8%	$1,176
Total	**89,152,303**	**100.0%**	**1,705,768**	**100.0%**	**$93,943**	**100.0%**	**$1,054**

Source: Waybill, 2013

Figure I-1: Rail Percentages by Direction, 2013

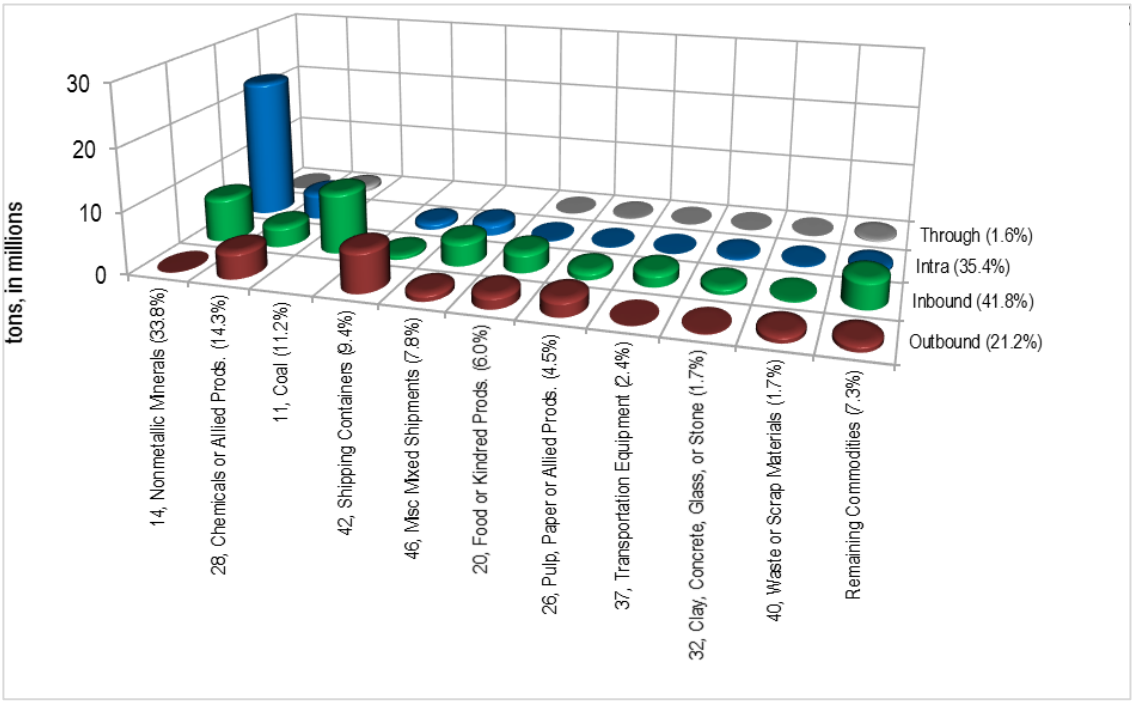


Source: Waybill, 2013

Major Commodity Movements

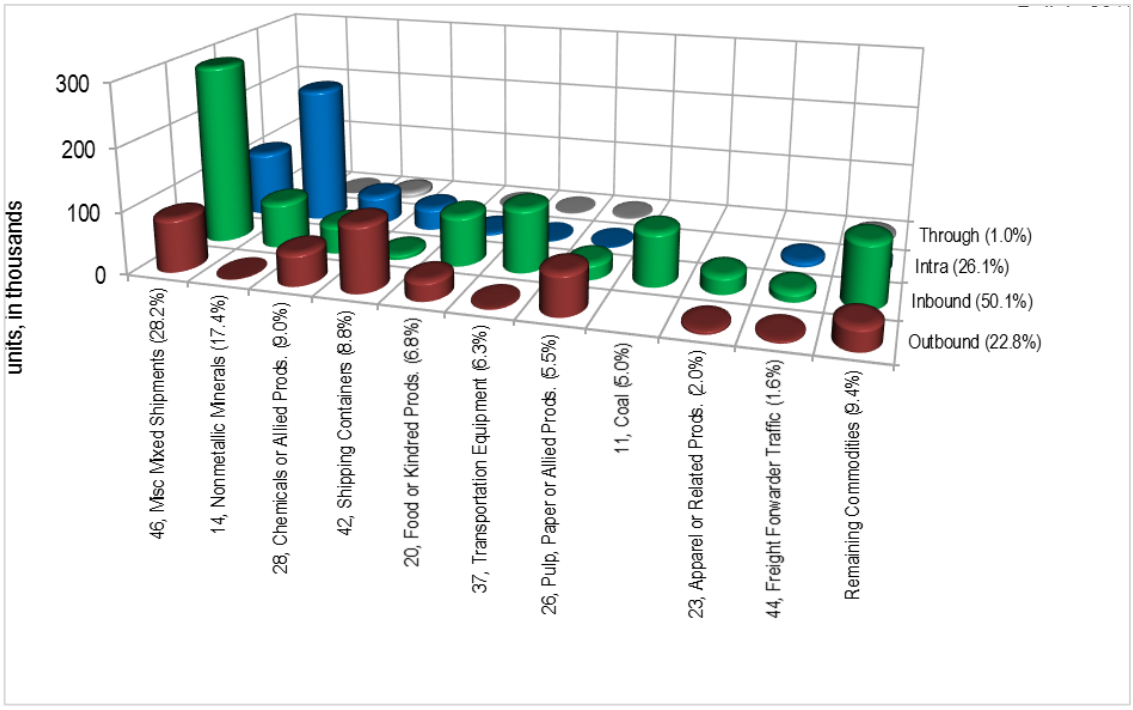
Figure I-2, **Figure I-3** and **Figure I-4** depict two-digit STCC commodities by direction for Florida freight rail, in terms of tonnage, units, and value, respectively. Supporting data is presented, by direction and is further detailed in the following subsections.

Figure I-2: Rail Commodities by Tonnage, 2013



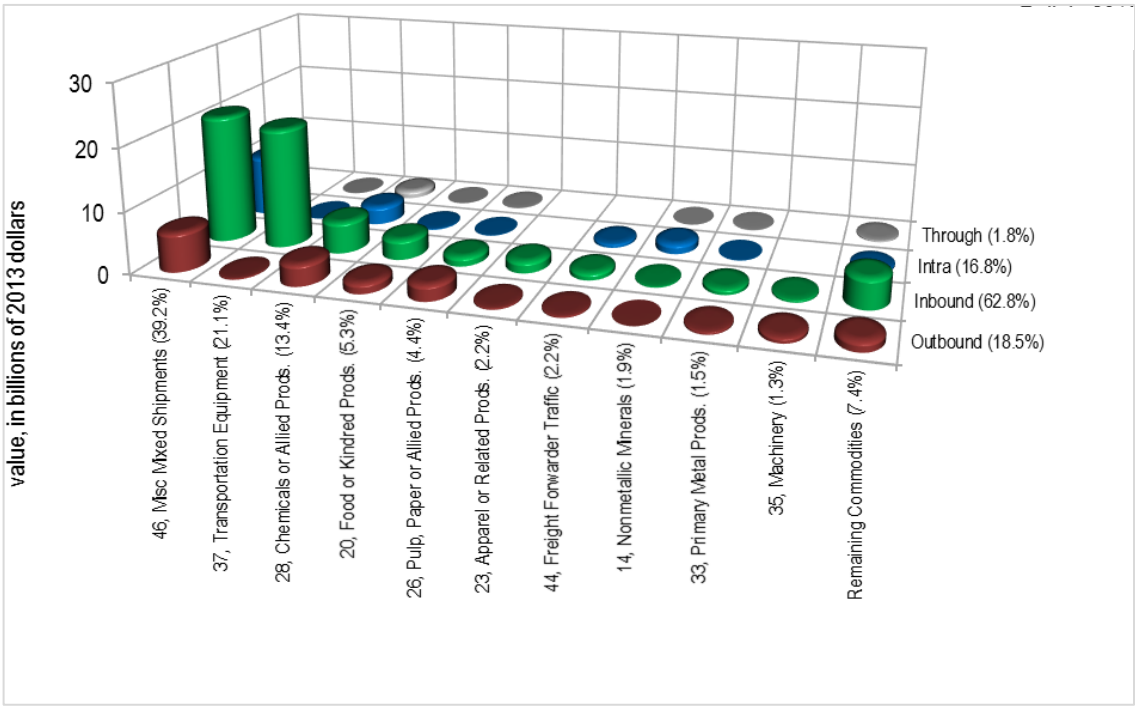
Source: Waybill, 2013

Figure I-3: Rail Commodities by Units, 2013



Source: Waybill, 2013

Figure I-4: Rail Commodities by Value, 2013



Source: Waybill, 2013

In terms of all rail directions combined, the top five commodities by term are:

- by Tonnage:

  1. Nonmetallic Minerals (30.1 million tons, 33.8% of rail total);
  2. Chemicals or Allied Products (12.8 million, 14.3%);
  3. Coal (9.9 million, 11.2%);
  4. Shipping Containers (8.3 million, 9.4%); and,
  5. Miscellaneous Mixed Shipments (7.0 million, 7.8%)

- by Units:

  1. Miscellaneous Mixed Shipments (480,560 units, 28.2% of rail total);
  2. Nonmetallic Minerals (297,141, 17.4%);
  3. Chemicals or Allied Products (153,676, 9.0%);
  4. Shipping Containers (150,600, 8.8%); and,
  5. Food or Kindred Products (116,432, 6.8%)

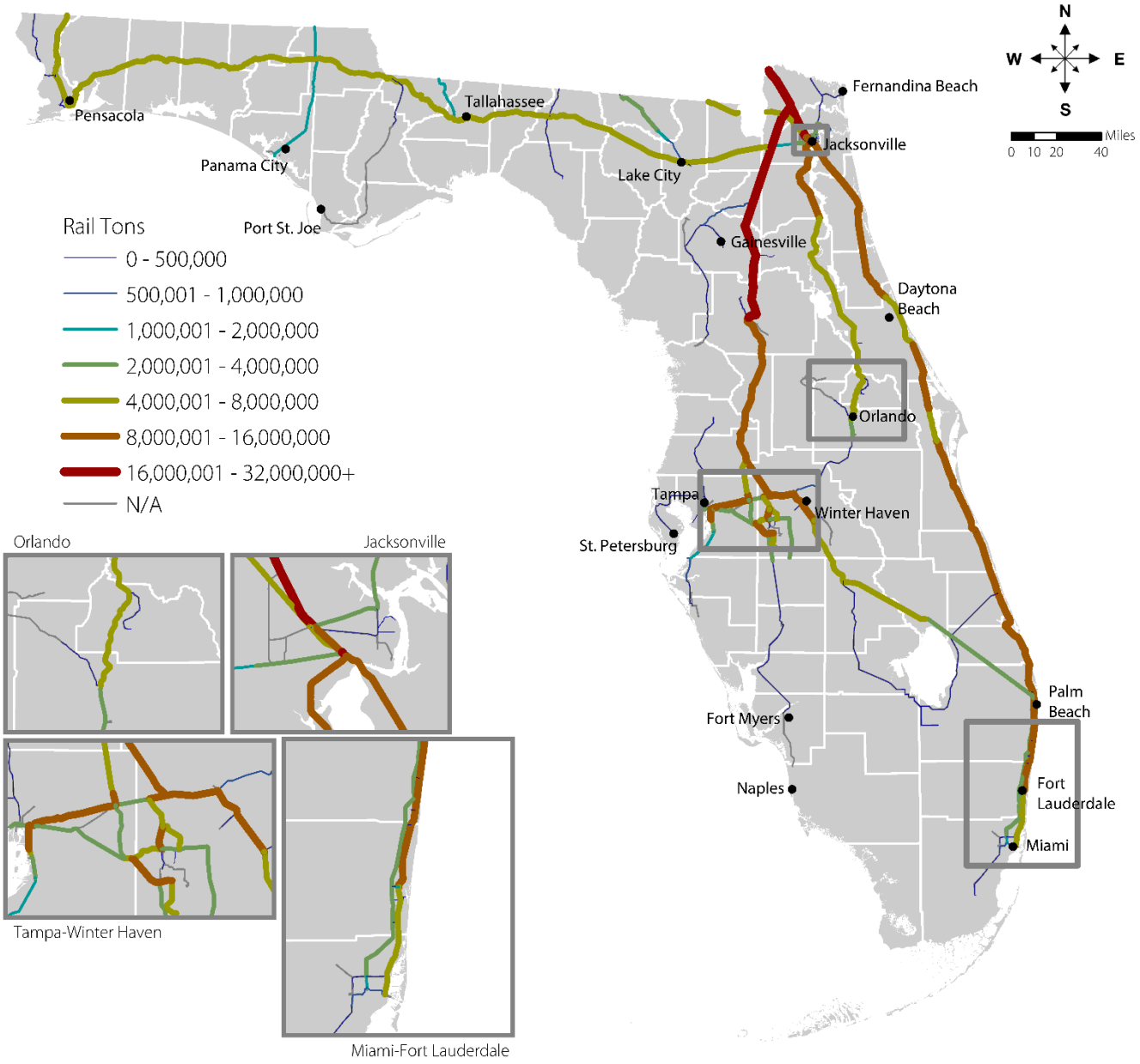
- by Value:

  1. Miscellaneous Mixed Shipments ($36.9 billion, 39.2% of rail total);
  2. Transportation Equipment ($19.8 billion, 21.1%);
  3. Chemicals or Allied Products ($12.6 billion, 13.4%);
  4. Food or Kindred Products ($5.0 billion, 5.3%); and,
  5. Pulp, Paper, or Allied Products ($4.1 billion, 4.4%)

Rail Line Density

Jacksonville accommodates the greatest relative concentration of freight rail flows, followed by Tampa-Lakeland and Miami-Fort Lauderdale, as seen in **Figure I-5**. Such relative concentration around the major metropolitan areas is logical, given that such areas are the primary origin/destination for freight rail in the state. And, the relative concentration surrounding Jacksonville is also attributable to Jacksonville serving as the entry/egress gateway for most freight rail in the peninsula. Additional rail line density maps by direction (outbound, inbound, through, and intrastate) are provided in **Figure 31** to **Figure 34**, respectively. Freight rail density data is from the TRANSEARCH® database.

Figure I-5: Florida Freight Rail Density (All Directions)



Source: Transearch 2011, Waybill 2013

Observations

Comparing tonnage, units, and value movements by mode and direction yields different perspectives on the importance of freight rail to the state. While *Nonmetallic Minerals* lead tonnage movements (and is second in terms of units), the value is comparatively low, reflecting a very low value-per-ton. Conversely, *Transportation Equipment* tonnage is a mere fraction of *Nonmetallic Minerals* tonnage, but the value is over 10 times greater. Similarly, directional differences by commodity are also noteworthy, as seen in the Figures and discussed in the following sections.

RAIL OUTBOUND

Table I-4 presents outbound rail commodities from Florida, in 2013, which total 18.9 million tons, via 388,454 units, valued at $17.4 billion, with an average value/ton of $920. The top five commodities are:

- by Tonnage:

    1. Shipping Containers (6.6 million tons, 35.0% of outbound total);
    2. Chemicals or Allied Products (4.3 million, 22.7%);
    3. Pulp, Paper, or Allied Products (2.5 million, 13.3%);
    4. Food or Kindred Products (2.0 million, 10.7%); and,
    5. Miscellaneous Mixed Shipments (1.2 million, 6.3%)

- by Units:

    1. Shipping Containers (106,200 units, 27.3% of outbound total);
    2. Miscellaneous Mixed Shipments (85,680, 22.1%);
    3. Pulp, Paper, or Allied Products (65,440, 16.8%);
    4. Chemicals or Allied Products (51,617, 13.3%); and,
    5. Food or Kindred Products (31,260, 8.0%)

- by Value:

    1. Miscellaneous Mixed Shipments ($6.3 billion, 36.0% of outbound total);
    2. Chemicals or Allied Products ($3.4 billion, 19.7%);
    3. Pulp, Paper, or Allied Products ($2.5 billion, 14.4%);
    4. Food or Kindred Products ($1.6 billion, 9.2%); and,
    5. Machinery ($0.8 billion, 4.6%)

Outbound Tonnage Origin

Major outbound rail tonnages in 2013 are shown by county origin in **Figure I-6** and **Figure I-8**. Rail movements destined out-of-state are primarily traveling from Duval County (5.3 million, 28.1%), Hillsborough County (2.2 million, 11.8%), and Orange County (1.9 million, 10.2%).

- Duval County (Jacksonville):

    1. Shipping Containers (2.7 million tons, 50.0% of outbound county total);
    2. Pulp, Paper, or Allied Products (1.1 million, 20.5%); and,
    3. Miscellaneous Mixed Shipments (0.7 million, 12.3%)

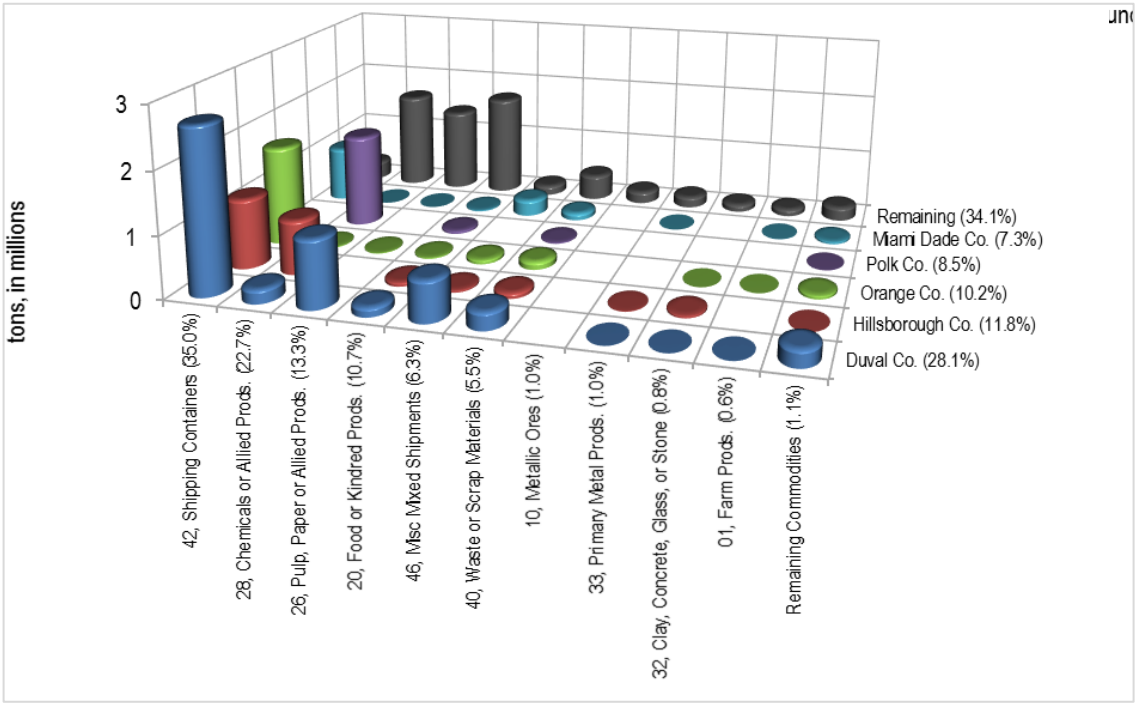
- Hillsborough County (Tampa):

  1. Shipping Containers (1.1 million tons, 50.5% of outbound county total);
  2. Chemicals or Allied Products (0.9 million, 38.9%); and,
  3. Waste or Scrap Materials (81,912, 3.7%)

- Orange County (Orlando):

  1. Shipping Containers (1.6 million tons, 83.8% of outbound county total);
  2. Waste or Scrap Materials (123,236, 6.4%); and,
  3. Miscellaneous Mixed Shipments (67,720, 3.5%)

Figure I-6: Rail Outbound Commodities by County Origin, 2013



Source: Waybill, 2013

Outbound Tonnage Destination

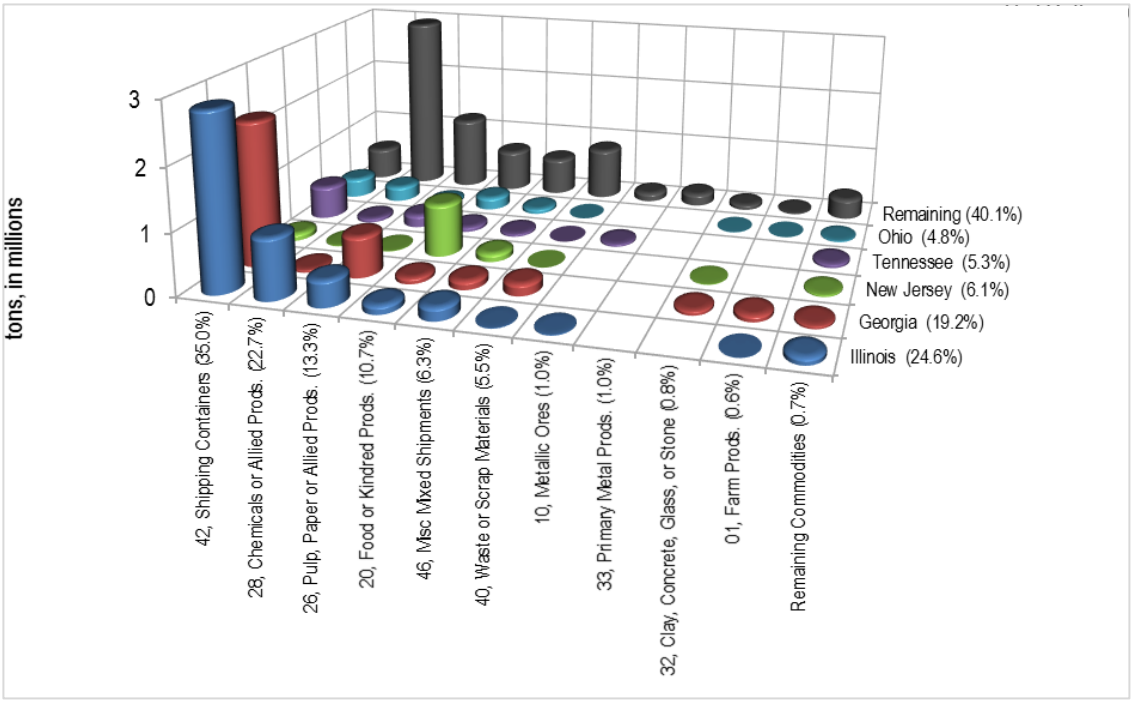
Major outbound rail tonnages in 2013 are shown by state destination in **Figure I-7** and **Figure I-8**. Rail movements destined out-of-state are primarily traveling to Illinois (4.7 million, 24.6%), Georgia (3.6 million, 19.2%), and New Jersey (1.1 million, 6.1%).

- Illinois:
    1. Shipping Containers (2.8 million tons, 60.3% of outbound state total);
    2. Chemicals or Allied Products (971,001, 20.8%); and,
    3. Pulp, Paper, or Allied Products (414,600, 8.9%)

- Georgia:
    1. Shipping Containers (2.3 million tons, 64.1% of outbound state total);
    2. Pulp, Paper, or Allied Products (651,800, 18.0%); and,
    3. Waste or Scrap Materials (178,764, 4.9%)

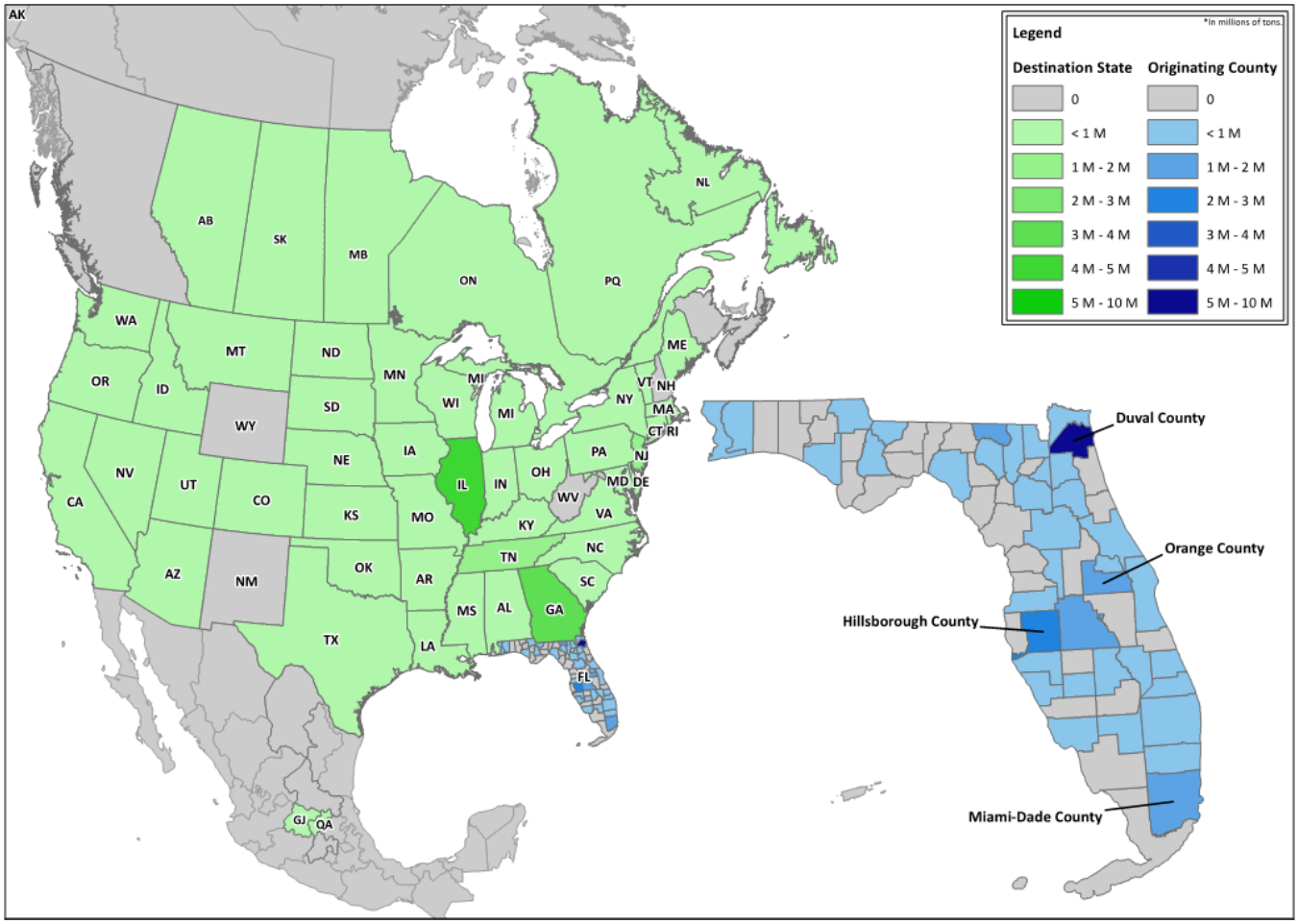
- New Jersey:
    1. Food or Kindred Products (845,480 tons, 73.8% of outbound state total);
    2. Miscellaneous Mixed Shipments (122,960, 10.7%); and,
    3. Shipping Containers (110,200, 9.6%)

Figure I-7: Rail Outbound Commodities by State Destination, 2013



Source: Waybill, 2013

Figure I-8: Rail Outbound by Origin and Destination, 2013



Source: Transearch 2011, Waybill, 2013

RAIL INBOUND

Table I-5 presents inbound rail commodities to Florida, in 2013, total 37.2 million tons, via 853,896 units, valued at $59.0 billion, with an average value/ton of $1,586. The top five commodities are:

- by Tonnage:

  1. Coal (9.9 million tons, 26.7% of inbound total);
  2. Nonmetallic Minerals (7.1 million, 19.2%);
  3. Miscellaneous Mixed Shipments (3.9 million, 10.5%);
  4. Chemicals or Allied Products (3.3 million, 9.0%); and,
  5. Food or Kindred Products (3.2 million, 8.5%)

- by Units:

  1. Miscellaneous Mixed Shipments (289,360 units, 33.9% of inbound total);
  2. Transportation Equipment (101,952, 11.9%);
  3. Coal (84,846, 9.9%);

4. Food or Kindred Products (80,504, 9.4%); and,
5. Nonmetallic Minerals (72,902, 8.5%)

- by Value:

1. Miscellaneous Mixed Shipments ($20.7 billion, 35.1% of inbound total);
2. Transportation Equipment ($19.5 billion, 33.0%);
3. Chemicals or Allied Products ($5.1 billion, 8.6%);
4. Food or Kindred Products ($3.2 billion, 5.4%); and,
5. Apparel or Related Products ($1.8 billion, 3.1%)

Inbound Tonnage Origin

Major inbound rail tonnages in 2013 are shown by state origin in **Figure I-9** and **Figure I-10**. Rail movements originating out-of-state are primarily traveling from Illinois (7.1 million, 19.0%), Georgia (6.8 million, 18.2%), and Kentucky (5.5 million, 14.9%).

- Illinois:

1. Chemicals or Allied Products (1.4 million tons, 19.6% of inbound state total);
2. Nonmetallic Minerals (1.3 million, 18.3%); and,
3. Coal (1.1 million, 15.3%)

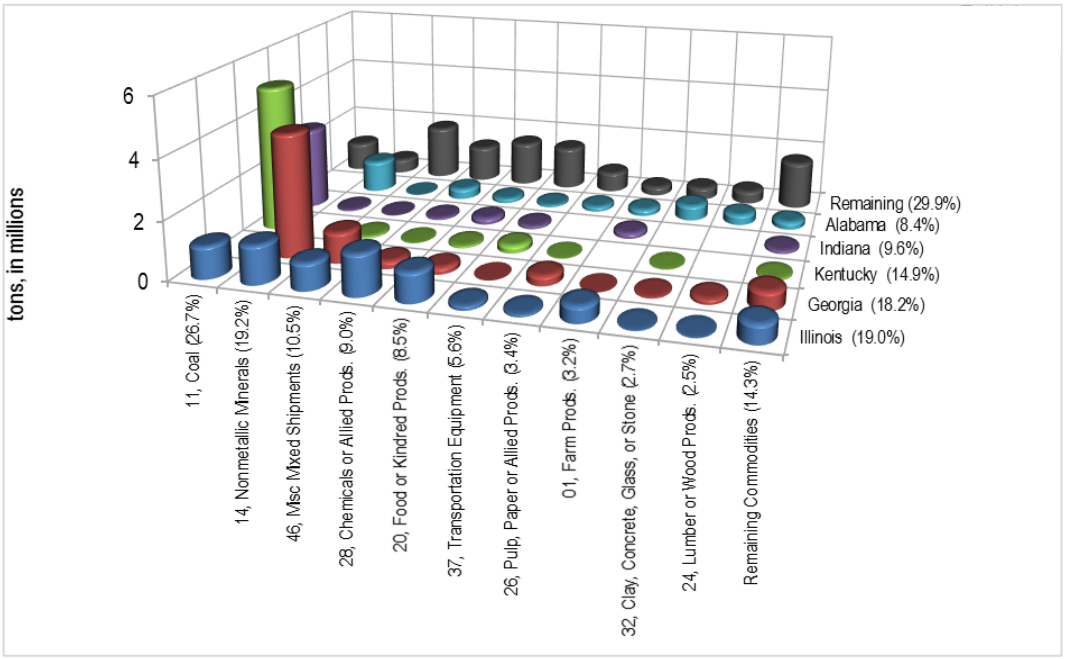
- Georgia:

1. Nonmetallic Minerals (4.2 million tons, 61.9% of inbound state total);
2. Miscellaneous Mixed Shipments (1.0 million, 15.0%); and,
3. Shipping Containers (344,400, 5.1%)

- Kentucky:

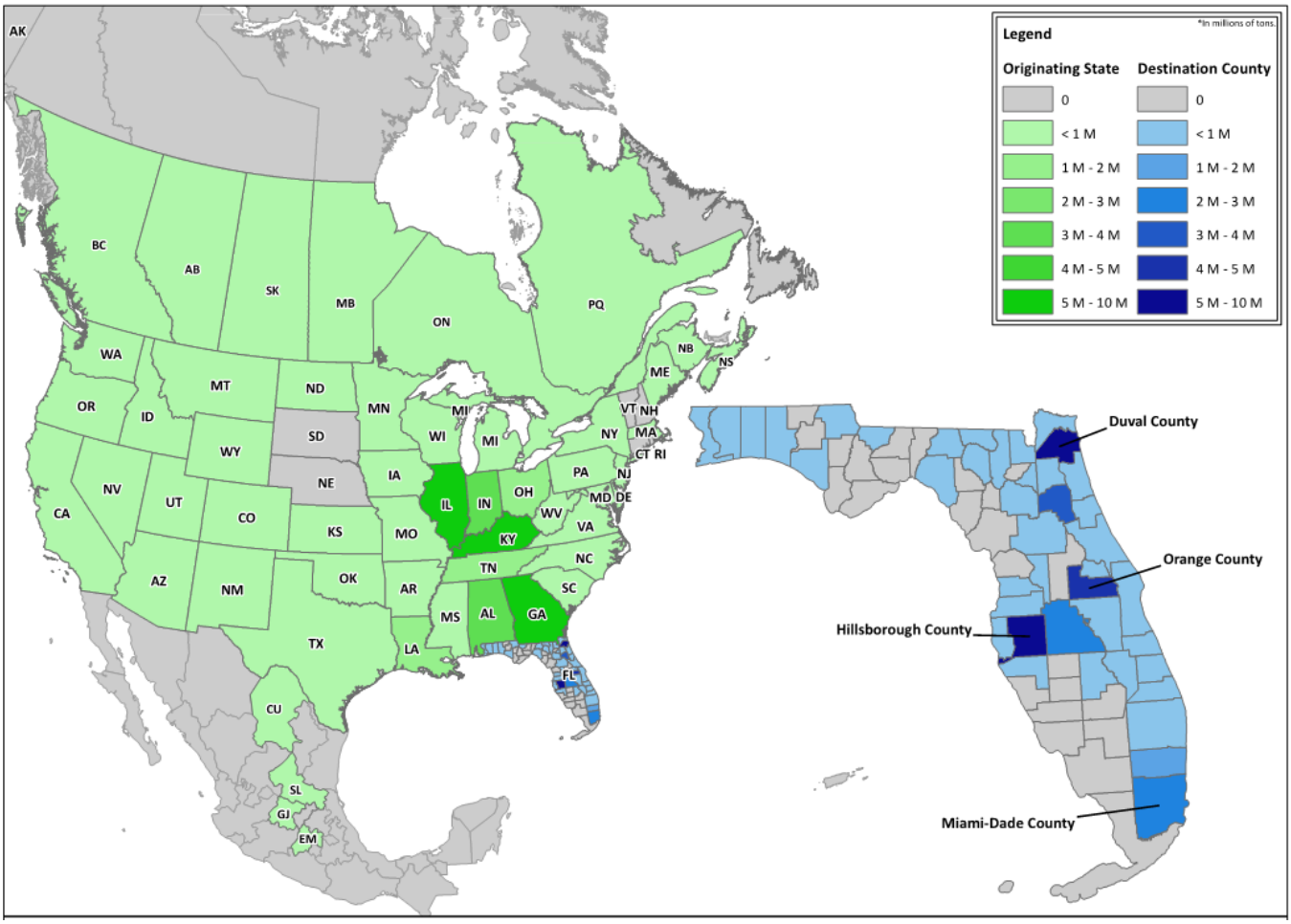
1. Coal (5.0 million tons, 90.5% of inbound state total);
2. Transportation Equipment (244,520, 4.4%); and,
3. Food or Kindred Products (176,240, 1.4%)

Figure I-9: Rail Inbound Commodities by State Origin, 2013



Source: Waybill, 2013

Figure I-10: Rail Inbound by Origin and Destination, 2013



Source: Transearch 2011, Waybill, 2013

Inbound Tonnage Destination

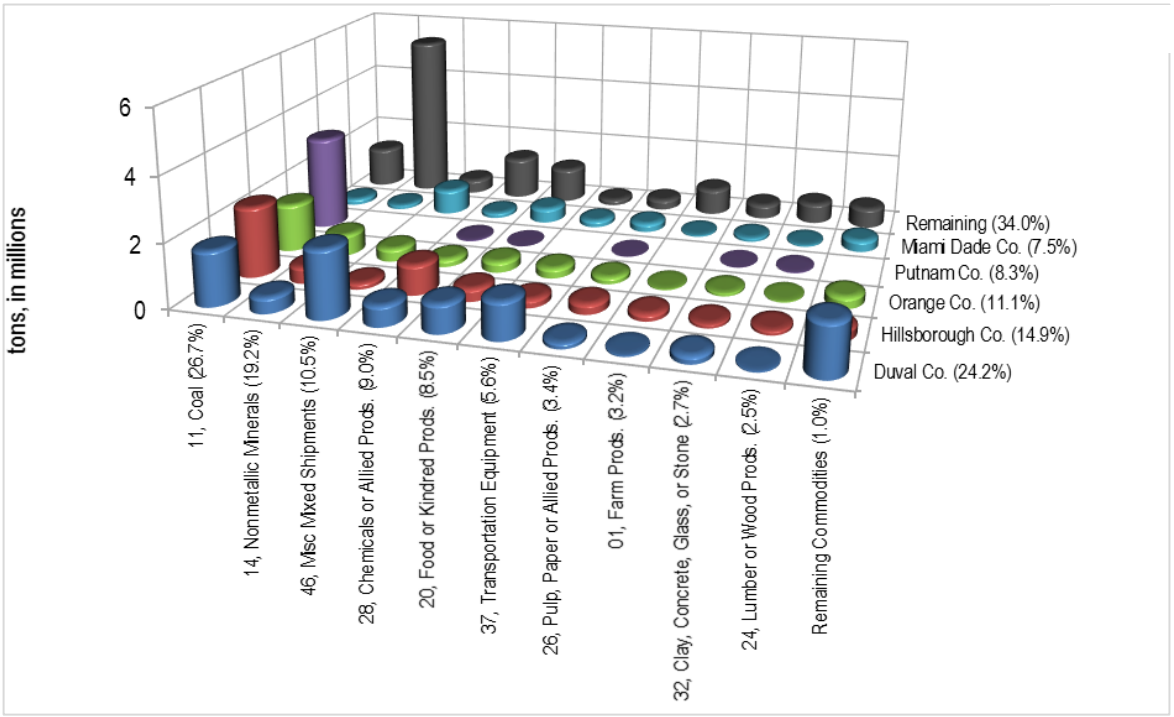
Major inbound rail tonnages in 2013 are shown by county destination in **Figure I-10** and **Figure I-11**. Rail movements originating out-of-state are primarily traveling to Duval County (9.0 million, 24.2%), Hillsborough County (5.5 million, 14.9%), and Orange County (4.1 million, 11.1%).

- Duval County (Jacksonville):
    1. Miscellaneous Mixed Shipments (2.1 million tons, 23.3% of inbound county total);
    2. Coal (1.7 million, 18.9%); and,
    3. Transportation Equipment (1.1 million, 12.7%)

- Hillsborough County (Tampa):
    1. Coal (2.2 million tons, 39.9% of inbound county total);
    2. Chemicals or Allied Products (928,292, 16.7%); and,
    3. Nonmetallic Minerals (496,966, 9.0%)

- Orange County (Orlando):
    1. Coal (1.5 million tons, 36.6% of inbound county total);
    2. Nonmetallic Minerals (664,679, 16.1%); and,
    3. Miscellaneous Mixed Shipments (391,720, 9.5%)

Figure I-11: Rail Inbound Commodities by County Destination, 2013



Source: Waybill, 2013

Rail Intrastate

Table I-6 presents intrastate rail commodities within Florida, in 2013, which total 31.5 million tons, via 446,005 units, valued at $15.8 billion, with an average value/ton of $500. The top five commodities are:

- by Tonnage:

  1. Nonmetallic Minerals (22.9 million tons, 72.6% of intra total);
  2. Chemicals or Allied Products (4.3 million, 13.6%);
  3. Miscellaneous Mixed Shipments (1.9 million, 5.9%);
  4. Shipping Containers (1.0 million, 3.2%); and,
  5. Lumber or Wood Products (0.4 million, 1.3%)

- by Units:

  1. Nonmetallic Minerals (223,131 units, 50.0% of intra total);
  2. Miscellaneous Mixed Shipments (105,520, 23.7%);
  3. Chemicals or Allied Products (47,256, 10.6%);
  4. Shipping Containers (36,200, 8.1%); and,
  5. Freight Forwarder Traffic (7,440, 1.7%)

- by Value:

  1. Miscellaneous Mixed Shipments ($9.9 billion, 62.5% of intra total);
  2. Chemicals or Allied Products ($2.9 billion, 18.5%);
  3. Nonmetallic Minerals ($1.5 billion, 9.8%);
  4. Freight Forwarder Traffic ($0.7 billion, 4.1%); and,
  5. Mail or Contract Traffic ($0.2 billion, 1.2%)

RAIL THROUGH

Table I-7 presents through rail commodities moving across Florida, in 2013, which total 1.5 million tons, via 17,413 units, valued at $1.7 billion, with an average value/ton of $1,176. The top five commodities are:

- by Tonnage:

    1. Chemicals or Allied Products (0.9 million tons, 58.4% of through total);
    2. Petroleum or Coal Products (0.2 million, 11.7%);
    3. Pulp, Paper, or Allied Products (0.1 million, 8.9%);
    4. Farm Products (0.1 million, 7.6%); and,
    5. Primary Metal Products (0.1 million, 3.6%)

- by Units:

    1. Chemicals or Allied Products (9,300 units, 53.4% of through total);
    2. Petroleum or Coal Products (1,936, 11.1%);
    3. Pulp, Paper, or Allied Products (1,720, 9.9%);
    4. Farm Products (1,085, 6.2%); and,
    5. Transportation Equipment (916, 5.3%)

- by Value:

    1. Chemicals or Allied Products ($1.2 billion, 70.1% of through total);
    2. Petroleum or Coal Products ($0.2 billion, 11.7%);
    3. Pulp, Paper, or Allied Products ($0.1 billion, 5.5%);
    4. Primary Metal Products ($0.1 billion, 4.5%); and,
    5. Miscellaneous Freight Shipments ($0.1 billion, 3.2%)

I.4 FREIGHT FORECASTS

Freight rail tonnage forecasts for year 2040 were made using directional commodity growth estimates from the IHS Global Insight 2011 TRANSEARCH® database, applied to the 2013 STB WAYBILL tonnage movements. The TRANSEARCH® database provides year 2011 actual volumes and year 2040 forecast volumes by direction and STCC commodity. Compound annual growth rates (CAGR) between 2011 and 2040 by two-digit STCC directional movements were applied to the more recent year 2013 movements from the WAYBILL. **Table I-10** presents the two-digit STCC commodity average annual growth rates from TRANSEARCH®, and **Table I-11** provides the directional commodity forecasts for 2040 derived from the growth rates.

I.4.1 SUMMARY FORECASTS

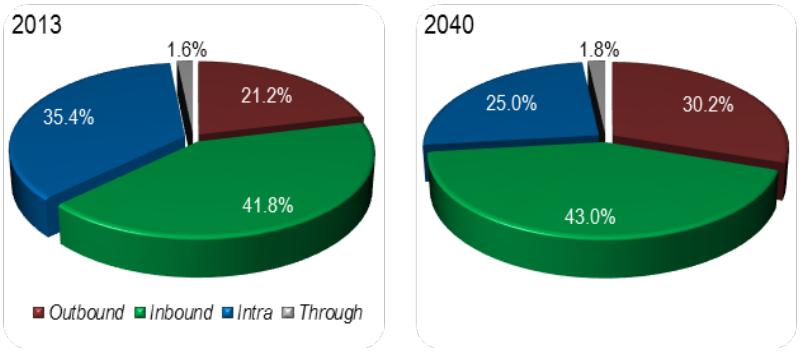
In applying the TRANSEARCH®-derived growth rates to the STB WAYBILL tonnage movements, Florida freight rail movements would increase from 89.2 million tons in 2013 to 115.4 million, an average annual increase of 1.0%. (**Table I-2**, **Figure I-12**) Both inbound and through movements are forecast to appreciate at a comparable rate to the total movements, at 1.1% and 1.3%, respectively. The directional composition would not change appreciably, but some of the intrastate movements are projected to decline, giving way to an increase in relative share by outbound movements, which is projected to grow relatively faster than the other directions.

Table I-2: Rail Tonnage Forecast Summary, 2013-2040

Direction	2013		2040		Change	
	Amount	*Percent*	Amount	*Percent*	Total	CAGR
Outbound	18,914,481	21.2%	34,824,614	30.2%	84.12%	2.3%
Inbound	37,222,277	41.8%	49,654,203	43.0%	33.40%	1.1%
Intra	31,549,885	35.4%	28,863,418	25.0%	-8.51%	-0.3%
Through	1,465,660	1.6%	2,073,669	1.8%	41.48%	1.3%
Total	89,152,303	100.0%	115,415,904	100.0%	29.46%	1.0%

Source: Waybill 2013 and Transearch 2011-2040

Figure I-12: Rail Ton Percentages by Year, 2013 and 2040



Source: Waybill 2013 and Transearch 2011-'40

Commodity Growth

As depicted in **Table 73,** the projected commodity growth by direction ranges from an average annual decline of 7.8% (outbound *Metallic Ores*) to a positive average annual growth of 5.2% (intrastate *Furniture and Fixtures*). STCC commodity movements by direction for 2040 are summarized in **Table 74**. The top 2040 commodity tonnage movements are listed below:

- Outbound

    1. Shipping Containers (16.7 million tons, 48.1% of outbound total);
    2. Chemicals or Allied Products (5.0 million, 14.4%);
    3. Pulp, Paper, or Allied Products (3.9 million, 11.2%);
    4. Food or Kindred Products (3.2 million, 9.3%); and,
    5. Waste or Scrap Materials (2.3 million, 6.7%)

- Inbound

    1. Coal (10.4 million tons, 21.0% of inbound total);
    2. Miscellaneous Mixed Shipments (7.2 million, 14.4%);
    3. Nonmetallic Minerals (6.4 million, 12.9%);
    4. Food or Kindred Products (5.0 million, 10.2%); and,
    5. Chemicals or Allied Products (4.8 million, 9.7%)

- Intrastate

    1. Nonmetallic Minerals (16.3 million tons, 56.4% of intra total);
    2. Chemicals or Allied Products (4.8 million, 16.7%);
    3. Miscellaneous Mixed Shipments (3.2 million, 10.9%);
    4. Shipping Containers (2.6 million, 8.9%); and,
    5. Lumber or Wood Products (0.5 million, 1.7%)

- Through

    1. Chemicals or Allied Products (1.3 million tons, 60.5% of through total);
    2. Petroleum or Coal Products (0.2 million, 11.3%);
    3. Pulp, Paper, or Allied Products (0.2 million, 10.0%);
    4. Farm Products (0.1 million, 5.4%); and,
    5. Primary Metal Products (0.1 million, 2.7%)

I.5 SUMMARY AND NEXT STEPS

Freight rail movements pertaining to Florida comprise a range of commodities moving in different directions (outbound, inbound, intrastate, and through), measured in different terms (tons, carloads, and values), and with varying geographic origins/destinations. These various directional movements, terms, and geographies complicate simple summarization. Nonetheless, the following summary highlights major commodity movements by direction, as well as the most valuable movements. The value movement summary is pertinent given its use in the ensuing economic impact analysis.

I.5.1 TOTAL MOVEMENTS

A combined total 89.2 million tons of freight moved across Florida rail lines in 2013, transported in 1.7 million railcar units, valued at $93.9 billion.

Directional Overview

Commodity movement, and composite terms, varies by direction.

- Inbound Movements – Dominate in terms of tonnage, units, and value, which is unsurprising given that Florida's economy is more service-oriented. Inbound units (0.9 million) and (value $59.0 billion) are more than outbound and intrastate combined.
- Given that Florida is a peninsula, through movements logically constitute a marginal proportion (<2%) of the total Florida-related rail movements.

Notable Commodity Movements

The following notable commodity movements compares and contrasts the associated units and value, as well as direction.

- *Nonmetallic Minerals* – Dominate tonnage movements with over 30.1 million (33.8%), comprised of mostly interstate movements (22.9 million) and inbound movements (7.1 million). However, such movements are valued at a relatively low $1.8 billion (1.9%).
- *Coal* – In tonnage terms (9.9 million, 11.2%), coal is the third highest commodity moved in Florida, all of which is inbound. However, its value ($356 million) comprises only 0.4% of total rail commodity movement value.
- *Chemicals or Allied Products* – Directional movements and terms are Notable in all directions for all three terms. Clearly, the commodity importance spans many industries across the state.
- *Shipping Containers* – As the fourth greatest movement in tonnage terms (8.3 million, 9.4%), the containers have no commodity value.
- *Misc. Mixed Shipments* – While tonnage comprises a modest 7.8% (7.0 million tons) of statewide totals, containerized freight lead unit movements (480,560 carloads, 28.2%) and value ($36.9 billion, 39.2%).

Other Notable Commodities

Three other Notable commodities moved in value terms:

- *Transportation Equipment* – The second most valuable commodity moved ($19.8 million, 21.1%) primarily comprises inbound vehicles/parts sold to Florida residents, businesses, and government institutions.
- *Food or Kindred Prods*. – Similarly, the majority ($3.2 billion) of the $5.0 billion in food products are inbound, sold to Florida residents or supply the various service industries. A Notable remaining share ($1.6 billion) reflect outbound movements.
- *Pulp, Paper or Allied Prods.* – A majority (60.6%) of the pulp/paper product movements ($4.1 billion, 4.4%) are outbound movements.

Next steps include quantifying the economic impacts associated with Florida freight rail. Beyond the impacts associated with providing freight rail service, the analysis evaluates the more germane impact associated with Florida firms that transport locally produced goods by rail, as well as the Florida firms that rely on inbound rail movement of parts/supplies/materials in their production process.

Table I-3: Rail Summary, 2013

STCC 2	Commodity	Tons		Units		Value (in millions)		Average Value/Ton
		Amount	Percent	Amount	Percent	Amount	Percent	
01	Farm Prods.	1,444,126	1.6%	17,616	1.0%	$417	0.4%	$289
08	Forest Prods.	4,160	0.0%	120	0.0%	$9	0.0%	$2,254
09	Fresh Fish or Marine Prods.	6,360	0.0%	320	0.0%	$49	0.1%	$7,700
10	Metallic Ores	222,972	0.3%	2,200	0.1%	$20	0.0%	$91
11	Coal	9,942,360	11.2%	84,846	5.0%	$356	0.4%	$36
13	Crude Petrol. or Natural Gas	25,380	0.0%	270	0.0%	$9	0.0%	$366
14	Nonmetallic Minerals	30,128,814	33.8%	297,141	17.4%	$1,769	1.9%	$59
19	Ordnance or Accessories	24,772	0.0%	480	0.0%	$37	0.0%	$1,500
20	Food or Kindred Prods.	5,353,176	6.0%	116,432	6.8%	$5,006	5.3%	$935
21	Tobacco Prods.	0	0.0%	0	0.0%	$0	0.0%	$0
22	Textile Mill Prods.	20,160	0.0%	1,600	0.1%	$109	0.1%	$5,399
23	Apparel or Related Prods.	363,800	0.4%	33,880	2.0%	$2,105	2.2%	$5,786
24	Lumber or Wood Prods.	1,468,020	1.6%	21,588	1.3%	$408	0.4%	$278
25	Furniture or Fixtures	73,600	0.1%	6,400	0.4%	$303	0.3%	$4,111
26	Pulp, Paper or Allied Prods.	3,981,436	4.5%	94,472	5.5%	$4,137	4.4%	$1,039
27	Printed Matter	72,000	0.1%	4,040	0.2%	$374	0.4%	$5,196
28	Chemicals or Allied Prods.	12,785,565	14.3%	153,676	9.0%	$12,619	13.4%	$987
29	Petroleum or Coal Prods.	783,748	0.9%	10,984	0.6%	$815	0.9%	$1,040
30	Rubber or Misc Plastics	107,600	0.1%	8,160	0.5%	$547	0.6%	$5,084
31	Leather or Leather Prods.	0	0.0%	0	0.0%	$0	0.0%	$0
32	Clay, Concrete, Glass, or Stone	1,506,968	1.7%	16,460	1.0%	$434	0.5%	$288
33	Primary Metal Prods.	849,092	1.0%	10,540	0.6%	$1,400	1.5%	$1,649
34	Fabricated Metal Prods.	85,368	0.1%	7,756	0.5%	$471	0.5%	$5,521
35	Machinery	124,840	0.1%	5,120	0.3%	$1,225	1.3%	$9,814
36	Electrical Equipment	151,280	0.2%	11,240	0.7%	$929	1.0%	$6,143
37	Transportation Equipment	2,156,303	2.4%	106,656	6.3%	$19,804	21.1%	$9,184
38	Instrum., Photo Eq., Optical Eq.	29,960	0.0%	2,280	0.1%	$253	0.3%	$8,440
39	Misc Manufacturing Prods.	18,680	0.0%	1,560	0.1%	$129	0.1%	$6,919
40	Waste or Scrap Materials	1,483,088	1.7%	18,160	1.1%	$483	0.5%	$326
41	Misc Freight Shipments	116,075	0.1%	6,651	0.4%	$412	0.4%	$3,546
42	Shipping Containers	8,337,880	9.4%	150,600	8.8%	$0	0.0%	$0
43	Mail or Contract Traffic	73,320	0.1%	3,240	0.2%	$203	0.2%	$2,774
44	Freight Forwarder Traffic	381,920	0.4%	26,480	1.6%	$2,021	2.2%	$5,290
45	Shipper Association Traffic	25,720	0.0%	1,080	0.1%	$136	0.1%	$5,290
46	Misc Mixed Shipments	6,968,040	7.8%	480,560	28.2%	$36,864	39.2%	$5,290
47	Small Packaged Shipments	32,160	0.0%	3,120	0.2%	$89	0.1%	$2,774
48	Waste	3,560	0.0%	40	0.0%	$0	0.0%	$0
49	Hazardous Materials	0	0.0%	0	0.0%	$0	0.0%	$0

STCC 2	Commodity	Tons		Units		Value (in millions)		Average Value/Ton
		Amount	Percent	Amount	Percent	Amount	Percent	
50	Secondary Traffic	0	0.0%	0	0.0%	$0	0.0%	$0
60	Unclassified	0	0.0%	0	0.0%	$0	0.0%	$0
	Total	**89,152,303**	**100.0%**	**1,705,768**	**100.0%**	**$93,943**	**100.0%**	**$1,054**

Source: Waybill, 2013

Table I-4: Rail Outbound, 2013

STCC 2	Commodity	Tons		Units		Value (in millions)		Average Value/Ton
		Amount	Percent	Amount	Percent	Amount	Percent	
01	Farm Prods.	119,288	0.6%	1,680	0.4%	$33	0.2%	$274
08	Forest Prods.	400	0.0%	40	0.0%	$1	0.0%	$2,254
09	Fresh Fish or Marine Prods.	0	0.0%	0	0.0%	$0	0.0%	$0
10	Metallic Ores	192,120	1.0%	1,880	0.5%	$19	0.1%	$100
11	Coal	0	0.0%	0	0.0%	$0	0.0%	$0
13	Crude Petrol. or Natural Gas	0	0.0%	0	0.0%	$0	0.0%	$0
14	Nonmetallic Minerals	43,360	0.2%	840	0.2%	$2	0.0%	$35
19	Ordnance or Accessories	23,052	0.1%	400	0.1%	$35	0.2%	$1,500
20	Food or Kindred Prods.	2,019,248	10.7%	31,260	8.0%	$1,610	9.2%	$797
21	Tobacco Prods.	0	0.0%	0	0.0%	$0	0.0%	$0
22	Textile Mill Prods.	18,000	0.1%	1,400	0.4%	$97	0.6%	$5,401
23	Apparel or Related Prods.	55,520	0.3%	5,720	1.5%	$297	1.7%	$5,358
24	Lumber or Wood Prods.	92,360	0.5%	960	0.2%	$43	0.2%	$470
25	Furniture or Fixtures	32,760	0.2%	1,840	0.5%	$130	0.7%	$3,977
26	Pulp, Paper or Allied Prods.	2,511,880	13.3%	65,440	16.8%	$2,506	14.4%	$998
27	Printed Matter	5,480	0.0%	400	0.1%	$32	0.2%	$5,794
28	Chemicals or Allied Prods.	4,284,405	22.7%	51,617	13.3%	$3,422	19.7%	$799
29	Petroleum or Coal Prods.	11,920	0.1%	200	0.1%	$12	0.1%	$1,020
30	Rubber or Misc Plastics	35,040	0.2%	2,480	0.6%	$199	1.1%	$5,674
31	Leather or Leather Prods.	0	0.0%	0	0.0%	$0	0.0%	$0
32	Clay, Concrete, Glass, or Stone	157,948	0.8%	1,740	0.4%	$140	0.8%	$884
33	Primary Metal Prods.	189,872	1.0%	2,672	0.7%	$435	2.5%	$2,291
34	Fabricated Metal Prods.	12,360	0.1%	1,120	0.3%	$45	0.3%	$3,630
35	Machinery	81,720	0.4%	1,440	0.4%	$792	4.6%	$9,697
36	Electrical Equipment	2,440	0.0%	200	0.1%	$49	0.3%	$20,112
37	Transportation Equipment	37,926	0.2%	2,506	0.6%	$265	1.5%	$6,996
38	Instrum., Photo Eq., Optical Eq.	3,200	0.0%	320	0.1%	$39	0.2%	$12,108
39	Misc Manufacturing Prods.	3,600	0.0%	480	0.1%	$26	0.1%	$7,243
40	Waste or Scrap Materials	1,043,104	5.5%	12,472	3.2%	$343	2.0%	$329
41	Misc Freight Shipments	70,438	0.4%	3,347	0.9%	$250	1.4%	$3,554
42	Shipping Containers	6,622,400	35.0%	106,200	27.3%	$0	0.0%	$0
43	Mail or Contract Traffic	800	0.0%	160	0.0%	$2	0.0%	$2,774
44	Freight Forwarder Traffic	59,280	0.3%	3,960	1.0%	$314	1.8%	$5,290
45	Shipper Association Traffic	0	0.0%	0	0.0%	$0	0.0%	$0
46	Misc Mixed Shipments	1,184,560	6.3%	85,680	22.1%	$6,267	36.0%	$5,290
47	Small Packaged Shipments	0	0.0%	0	0.0%	$0	0.0%	$0
48	Waste	0	0.0%	0	0.0%	$0	0.0%	$0
49	Hazardous Materials	0	0.0%	0	0.0%	$0	0.0%	$0
50	Secondary Traffic	0	0.0%	0	0.0%	$0	0.0%	$0
60	Unclassified	0	0.0%	0	0.0%	$0	0.0%	$0

STCC 2	Commodity	Tons		Units		Value (in millions)		Average Value/Ton
		Amount	Percent	Amount	Percent	Amount	Percent	
	Total	**18,914,481**	**100.0%**	**388,454**	**100.0%**	**$17,405**	**100.0%**	**$920**

Source: Waybill, 2013

Table I-5: Rail Inbound, 2013

STCC 2	Commodity	Tons		Units		Value (in millions)		Average Value/Ton
		Amount	Percent	Amount	Percent	Amount	Percent	
01	Farm Prods.	1,190,582	3.2%	14,619	1.7%	$353	0.6%	$297
08	Forest Prods.	3,760	0.0%	80	0.0%	$8	0.0%	$2,254
09	Fresh Fish or Marine Prods.	6,360	0.0%	320	0.0%	$49	0.1%	$7,700
10	Metallic Ores	30,852	0.1%	320	0.0%	$1	0.0%	$35
11	Coal	9,942,360	26.7%	84,846	9.9%	$356	0.6%	$36
13	Crude Petrol. or Natural Gas	25,380	0.1%	270	0.0%	$9	0.0%	$366
14	Nonmetallic Minerals	7,145,879	19.2%	72,902	8.5%	$223	0.4%	$31
19	Ordnance or Accessories	1,720	0.0%	80	0.0%	$3	0.0%	$1,500
20	Food or Kindred Prods.	3,175,724	8.5%	80,504	9.4%	$3,207	5.4%	$1,010
21	Tobacco Prods.	0	0.0%	0	0.0%	$0	0.0%	$0
22	Textile Mill Prods.	2,160	0.0%	200	0.0%	$12	0.0%	$5,382
23	Apparel or Related Prods.	308,280	0.8%	28,160	3.3%	$1,807	3.1%	$5,863
24	Lumber or Wood Prods.	941,360	2.5%	13,192	1.5%	$286	0.5%	$304
25	Furniture or Fixtures	38,440	0.1%	3,760	0.4%	$160	0.3%	$4,172
26	Pulp, Paper or Allied Prods.	1,255,036	3.4%	26,032	3.0%	$1,474	2.5%	$1,174
27	Printed Matter	66,520	0.2%	3,640	0.4%	$342	0.6%	$5,147
28	Chemicals or Allied Prods.	3,338,671	9.0%	45,503	5.3%	$5,063	8.6%	$1,516
29	Petroleum or Coal Prods.	586,168	1.6%	8,648	1.0%	$598	1.0%	$1,019
30	Rubber or Misc Plastics	72,560	0.2%	5,680	0.7%	$348	0.6%	$4,800
31	Leather or Leather Prods.	0	0.0%	0	0.0%	$0	0.0%	$0
32	Clay, Concrete, Glass, or Stone	1,022,904	2.7%	11,472	1.3%	$265	0.4%	$259
33	Primary Metal Prods.	570,660	1.5%	6,828	0.8%	$836	1.4%	$1,465
34	Fabricated Metal Prods.	73,008	0.2%	6,636	0.8%	$426	0.7%	$5,841
35	Machinery	43,120	0.1%	3,680	0.4%	$433	0.7%	$10,035
36	Electrical Equipment	143,240	0.4%	10,760	1.3%	$863	1.5%	$6,027
37	Transportation Equipment	2,069,232	5.6%	101,952	11.9%	$19,470	33.0%	$9,409
38	Instrum., Photo Eq., Optical Eq.	26,760	0.1%	1,960	0.2%	$214	0.4%	$8,002
39	Misc Manufacturing Prods.	14,280	0.0%	1,040	0.1%	$101	0.2%	$7,057
40	Waste or Scrap Materials	245,384	0.7%	3,532	0.4%	$78	0.1%	$320
41	Misc Freight Shipments	26,397	0.1%	2,400	0.3%	$94	0.2%	$3,554
42	Shipping Containers	698,000	1.9%	8,200	1.0%	$0	0.0%	$0
43	Mail or Contract Traffic	2,480	0.0%	160	0.0%	$7	0.0%	$2,774
44	Freight Forwarder Traffic	199,400	0.5%	15,080	1.8%	$1,055	1.8%	$5,290
45	Shipper Association Traffic	24,120	0.1%	1,000	0.1%	$128	0.2%	$5,290
46	Misc Mixed Shipments	3,918,120	10.5%	289,360	33.9%	$20,728	35.1%	$5,290
47	Small Packaged Shipments	13,360	0.0%	1,080	0.1%	$37	0.1%	$2,774
48	Waste	0	0.0%	0	0.0%	$0	0.0%	$0
49	Hazardous Materials	0	0.0%	0	0.0%	$0	0.0%	$0
50	Secondary Traffic	0	0.0%	0	0.0%	$0	0.0%	$0
60	Unclassified	0	0.0%	0	0.0%	$0	0.0%	$0

STCC 2	Commodity	Tons		Units		Value (in millions)		Average Value/Ton
		Amount	Percent	Amount	Percent	Amount	Percent	
	Total	37,222,277	100.0%	853,896	100.0%	$59,036	100.0%	$1,586

Source: Waybill, 2013

Table I-6: Rail Intra, 2013

STCC 2	Commodity	Tons		Units		Value (in millions)		Average Value/Ton
		Amount	Percent	Amount	Percent	Amount	Percent	
01	Farm Prods.	22,736	0.1%	232	0.1%	$3	0.0%	$149
08	Forest Prods.	0	0.0%	0	0.0%	$0	0.0%	$0
09	Fresh Fish or Marine Prods.	0	0.0%	0	0.0%	$0	0.0%	$0
10	Metallic Ores	0	0.0%	0	0.0%	$0	0.0%	$0
11	Coal	0	0.0%	0	0.0%	$0	0.0%	$0
13	Crude Petrol. or Natural Gas	0	0.0%	0	0.0%	$0	0.0%	$0
14	Nonmetallic Minerals	22,913,335	72.6%	223,131	50.0%	$1,542	9.8%	$67
19	Ordnance or Accessories	0	0.0%	0	0.0%	$0	0.0%	$0
20	Food or Kindred Prods.	139,564	0.4%	4,468	1.0%	$177	1.1%	$1,266
21	Tobacco Prods.	0	0.0%	0	0.0%	$0	0.0%	$0
22	Textile Mill Prods.	0	0.0%	0	0.0%	$0	0.0%	$0
23	Apparel or Related Prods.	0	0.0%	0	0.0%	$0	0.0%	$0
24	Lumber or Wood Prods.	412,820	1.3%	7,196	1.6%	$62	0.4%	$149
25	Furniture or Fixtures	2,400	0.0%	800	0.2%	$12	0.1%	$4,965
26	Pulp, Paper or Allied Prods.	83,520	0.3%	1,280	0.3%	$61	0.4%	$731
27	Printed Matter	0	0.0%	0	0.0%	$0	0.0%	$0
28	Chemicals or Allied Prods.	4,306,017	13.6%	47,256	10.6%	$2,925	18.5%	$679
29	Petroleum or Coal Prods.	13,680	0.0%	200	0.0%	$4	0.0%	$302
30	Rubber or Misc Plastics	0	0.0%	0	0.0%	$0	0.0%	$0
31	Leather or Leather Prods.	0	0.0%	0	0.0%	$0	0.0%	$0
32	Clay, Concrete, Glass, or Stone	310,236	1.0%	3,048	0.7%	$28	0.2%	$91
33	Primary Metal Prods.	35,400	0.1%	400	0.1%	$52	0.3%	$1,458
34	Fabricated Metal Prods.	0	0.0%	0	0.0%	$0	0.0%	$0
35	Machinery	0	0.0%	0	0.0%	$0	0.0%	$0
36	Electrical Equipment	5,600	0.0%	280	0.1%	$17	0.1%	$3,022
37	Transportation Equipment	28,137	0.1%	1,282	0.3%	$48	0.3%	$1,701
38	Instrum., Photo Eq., Optical Eq.	0	0.0%	0	0.0%	$0	0.0%	$0
39	Misc Manufacturing Prods.	800	0.0%	40	0.0%	$2	0.0%	$3,000
40	Waste or Scrap Materials	175,400	0.6%	1,876	0.4%	$57	0.4%	$326
41	Misc Freight Shipments	3,720	0.0%	316	0.1%	$12	0.1%	$3,285
42	Shipping Containers	1,017,480	3.2%	36,200	8.1%	$0	0.0%	$0
43	Mail or Contract Traffic	70,040	0.2%	2,920	0.7%	$194	1.2%	$2,774
44	Freight Forwarder Traffic	123,240	0.4%	7,440	1.7%	$652	4.1%	$5,290
45	Shipper Association Traffic	1,600	0.0%	80	0.0%	$8	0.1%	$5,290
46	Misc Mixed Shipments	1,865,360	5.9%	105,520	23.7%	$9,869	62.5%	$5,290
47	Small Packaged Shipments	18,800	0.1%	2,040	0.5%	$52	0.3%	$2,774
48	Waste	0	0.0%	0	0.0%	$0	0.0%	$0
49	Hazardous Materials	0	0.0%	0	0.0%	$0	0.0%	$0
50	Secondary Traffic	0	0.0%	0	0.0%	$0	0.0%	$0
60	Unclassified	0	0.0%	0	0.0%	$0	0.0%	$0
	Total	**31,549,885**	**100.0%**	**446,005**	**100.0%**	**$15,778**	**100.0%**	**$500**

Source: Waybill, 2013

Table I-7: Rail Through, 2013

STCC 2	Commodity	Tons		Units		Value (in millions)		Average Value/Ton
		Amount	Percent	Amount	Percent	Amount	Percent	
01	Farm Prods.	111,520	7.6%	1,085	6.2%	$28	1.6%	$254
08	Forest Prods.	0	0.0%	0	0.0%	$0	0.0%	$0
09	Fresh Fish or Marine Prods.	0	0.0%	0	0.0%	$0	0.0%	$0
10	Metallic Ores	0	0.0%	0	0.0%	$0	0.0%	$0
11	Coal	0	0.0%	0	0.0%	$0	0.0%	$0
13	Crude Petrol. or Natural Gas	0	0.0%	0	0.0%	$0	0.0%	$0
14	Nonmetallic Minerals	26,240	1.8%	268	1.5%	$2	0.1%	$93
19	Ordnance or Accessories	0	0.0%	0	0.0%	$0	0.0%	$0
20	Food or Kindred Prods.	18,640	1.3%	200	1.1%	$12	0.7%	$633
21	Tobacco Prods.	0	0.0%	0	0.0%	$0	0.0%	$0
22	Textile Mill Prods.	0	0.0%	0	0.0%	$0	0.0%	$0
23	Apparel or Related Prods.	0	0.0%	0	0.0%	$0	0.0%	$0
24	Lumber or Wood Prods.	21,480	1.5%	240	1.4%	$16	1.0%	$765
25	Furniture or Fixtures	0	0.0%	0	0.0%	$0	0.0%	$0
26	Pulp, Paper or Allied Prods.	131,000	8.9%	1,720	9.9%	$95	5.5%	$726
27	Printed Matter	0	0.0%	0	0.0%	$0	0.0%	$0
28	Chemicals or Allied Prods.	856,472	58.4%	9,300	53.4%	$1,209	70.1%	$1,412
29	Petroleum or Coal Prods.	171,980	11.7%	1,936	11.1%	$202	11.7%	$1,172
30	Rubber or Misc Plastics	0	0.0%	0	0.0%	$0	0.0%	$0
31	Leather or Leather Prods.	0	0.0%	0	0.0%	$0	0.0%	$0
32	Clay, Concrete, Glass, or Stone	15,880	1.1%	200	1.1%	$1	0.1%	$92
33	Primary Metal Prods.	53,160	3.6%	640	3.7%	$77	4.5%	$1,458
34	Fabricated Metal Prods.	0	0.0%	0	0.0%	$0	0.0%	$0
35	Machinery	0	0.0%	0	0.0%	$0	0.0%	$0
36	Electrical Equipment	0	0.0%	0	0.0%	$0	0.0%	$0
37	Transportation Equipment	21,008	1.4%	916	5.3%	$21	1.2%	$986
38	Instrum., Photo Eq., Optical Eq.	0	0.0%	0	0.0%	$0	0.0%	$0
39	Misc Manufacturing Prods.	0	0.0%	0	0.0%	$0	0.0%	$0
40	Waste or Scrap Materials	19,200	1.3%	280	1.6%	$5	0.3%	$251
41	Misc Freight Shipments	15,520	1.1%	588	3.4%	$55	3.2%	$3,554
42	Shipping Containers	0	0.0%	0	0.0%	$0	0.0%	$0
43	Mail or Contract Traffic	0	0.0%	0	0.0%	$0	0.0%	$0
44	Freight Forwarder Traffic	0	0.0%	0	0.0%	$0	0.0%	$0
45	Shipper Association Traffic	0	0.0%	0	0.0%	$0	0.0%	$0
46	Misc Mixed Shipments	0	0.0%	0	0.0%	$0	0.0%	$0
47	Small Packaged Shipments	0	0.0%	0	0.0%	$0	0.0%	$0
48	Waste	3,560	0.2%	40	0.2%	$0	0.0%	$0
49	Hazardous Materials	0	0.0%	0	0.0%	$0	0.0%	$0
50	Secondary Traffic	0	0.0%	0	0.0%	$0	0.0%	$0
60	Unclassified	0	0.0%	0	0.0%	$0	0.0%	$0

STCC 2	Commodity	Tons		Units		Value (in millions)		Average Value/Ton
		Amount	Percent	Amount	Percent	Amount	Percent	
	Total	**1,465,660**	**100.0%**	**17,413**	**100.0%**	**$1,724**	**100.0%**	**$1,176**

Source: Waybill, 2013

Table I-8: Rail Outbound Tons by Geography, 2013

STCC2		Originating Florida Counties						
		Duval	Hillsborough	Orange	Polk	Miami Dade	Remaining	Total
42	Shipping Containers	2,654,280	1,132,000	1,616,000	0	919,200	300,920	6,622,400
28	Chemicals or Allied Prods.	222,508	871,431	20,240	1,532,675	1,080	1,636,471	4,284,405
26	Pulp, Paper or Allied Prods.	1,089,880	0	16,480	0	840	1,404,680	2,511,880
20	Food or Kindred Prods.	144,468	64,508	24,680	48,680	23,920	1,712,992	2,019,248
46	Misc Mixed Shipments	654,280	36,640	67,720	0	269,960	155,960	1,184,560
	Remaining Commodities	545,066	135,136	182,322	28,160	163,400	1,237,904	2,291,988
	Total	**5,310,482**	**2,239,715**	**1,927,442**	**1,609,515**	**1,378,400**	**6,448,927**	**18,914,481**
STCC2		**Terminating State**						
		Illinois	Georgia	New Jersey	Tennessee	Ohio	Remaining	Total
42	Shipping Containers	2,811,200	2,323,800	110,200	536,720	313,000	527,480	6,622,400
28	Chemicals or Allied Prods.	971,001	43,724	14,960	60,672	242,827	2,951,221	4,284,405
26	Pulp, Paper or Allied Prods.	414,600	651,800	8,960	193,160	40,920	1,202,440	2,511,880
20	Food or Kindred Prods.	130,880	89,096	845,480	70,960	197,472	685,360	2,019,248
46	Misc Mixed Shipments	200,120	131,560	122,960	43,760	74,520	611,640	1,184,560
	Remaining Commodities	134,040	384,840	43,040	100,910	30,480	1,598,678	2,291,988
	Total	**4,661,841**	**3,624,820**	**1,145,600**	**1,006,182**	**899,219**	**7,576,819**	**18,914,481**

Source: Waybill, 2013

Table I-9: Rail Inbound Tons by Geography, 2013

STCC2		Originating State						
		Illinois	Georgia	New Jersey	Tennessee	Ohio	Remaining	Total
11	Coal	1,081,653	0	5,010,618	2,842,496	0	1,007,593	9,942,360
14	Nonmetallic Minerals	1,293,628	4,191,322	0	56,000	1,111,486	493,443	7,145,879
46	Misc Mixed Shipments	901,240	1,016,760	74,440	19,600	8,760	1,897,320	3,918,120
28	Chemicals or Allied Prods.	1,385,843	239,688	22,744	76,960	355,840	1,257,596	3,338,671
20	Food or Kindred Prods.	988,192	211,000	76,240	197,404	149,876	1,553,012	3,175,724
	Remaining Commodities	1,408,849	1,113,572	355,000	375,880	1,518,403	4,929,819	9,701,523
	Total	**7,059,405**	**6,772,342**	**5,539,042**	**3,568,340**	**3,144,365**	**11,138,783**	**37,222,277**
STCC2		**Terminating Florida Counties**						
		Duval	Hillsborough	Orange	Polk	Miami Dade	Remaining	Total
11	Coal	1,701,256	2,213,482	1,515,388	3,012,136	187,818	1,312,280	9,942,360
14	Nonmetallic Minerals	483,277	496,966	664,679	0	130,512	5,370,445	7,145,879
46	Misc Mixed Shipments	2,101,800	179,120	391,720	0	802,600	442,880	3,918,120
28	Chemicals or Allied Prods.	630,428	928,292	229,960	37,520	155,440	1,357,031	3,338,671
20	Food or Kindred Prods.	873,452	385,360	324,320	4,000	459,480	1,129,112	3,175,724
	Remaining Commodities	3,212,981	1,340,976	1,009,388	42,760	1,061,012	3,034,406	9,701,523
	Total	**9,003,194**	**5,544,196**	**4,135,455**	**3,096,416**	**2,796,862**	**12,646,154**	**37,222,277**

Source: Waybill, 2013

Table I-10: Commodity Compound Annual Growth Rates (2011-2040 CAGR)

STCC2	Commodity	Outbound	Inbound	Intra	Through
01	Farm Prods.	1.0%	1.0%	0.8%	#N/A
08	Forest Prods.	#N/A	2.1%	#N/A	#N/A
09	Fresh Fish or Marine Prods.	#N/A	2.1%	1.9%	#N/A
10	Metallic Ores	-7.8%	-1.2%	#N/A	#N/A
11	Coal	#N/A	0.2%	#N/A	#N/A
13	Crude Petrol. or Natural Gas	#N/A	#N/A	#N/A	#N/A
14	Nonmetallic Minerals	0.6%	-0.4%	-1.3%	-1.5%
19	Ordnance or Accessories	-0.8%	-0.8%	#N/A	#N/A
20	Food or Kindred Prods.	1.8%	1.8%	1.6%	2.2%
21	Tobacco Prods.	#N/A	#N/A	#N/A	#N/A
22	Textile Mill Prods.	1.6%	1.6%	#N/A	#N/A
23	Apparel or Related Prods.	-2.5%	-2.7%	#N/A	-4.0%
24	Lumber or Wood Prods.	1.9%	1.4%	0.7%	1.4%
25	Furniture or Fixtures	0.4%	3.7%	5.2%	#N/A
26	Pulp, Paper or Allied Prods.	1.7%	1.7%	1.6%	1.8%
27	Printed Matter	1.7%	0.7%	#N/A	#N/A
28	Chemicals or Allied Prods.	0.6%	1.4%	0.4%	1.5%
29	Petroleum or Coal Prods.	-0.1%	-0.1%	0.2%	1.2%
30	Rubber or Misc Plastics	2.1%	2.2%	#N/A	#N/A
31	Leather or Leather Prods.	-1.1%	-1.1%	#N/A	#N/A
32	Clay, Concrete, Glass, or Stone	2.6%	2.2%	1.2%	1.8%
33	Primary Metal Prods.	-1.1%	0.5%	-1.7%	0.2%
34	Fabricated Metal Prods.	0.1%	-0.5%	#N/A	1.9%
35	Machinery	2.7%	4.0%	#N/A	2.0%
36	Electrical Equipment	2.2%	3.0%	2.3%	#N/A
37	Transportation Equipment	2.1%	2.7%	1.6%	0.2%
38	Instrum., Photo Eq., Optical Eq.	3.5%	3.8%	4.1%	#N/A
39	Misc Manufacturing Prods.	3.7%	3.2%	3.7%	4.0%
40	Waste or Scrap Materials	3.2%	2.7%	3.7%	2.9%
41	Misc Freight Shipments	3.8%	2.6%	#N/A	3.4%
42	Shipping Containers	3.6%	3.6%	3.6%	3.6%
43	Mail or Contract Traffic	-0.8%	-0.8%	-0.8%	#N/A
44	Freight Forwarder Traffic	1.9%	1.9%	#N/A	1.9%
45	Shipper Association Traffic	2.5%	2.5%	2.5%	#N/A
46	Misc Mixed Shipments	2.1%	2.3%	2.0%	1.6%
47	Small Packaged Shipments	#N/A	1.6%	1.6%	#N/A
48	Waste	4.1%	#N/A	#N/A	#N/A
49	Hazardous Materials	#N/A	#N/A	#N/A	#N/A
50	Secondary Traffic	#N/A	#N/A	#N/A	#N/A
60	Unclassified	#N/A	#N/A	#N/A	#N/A

Source: Transearch, 2011

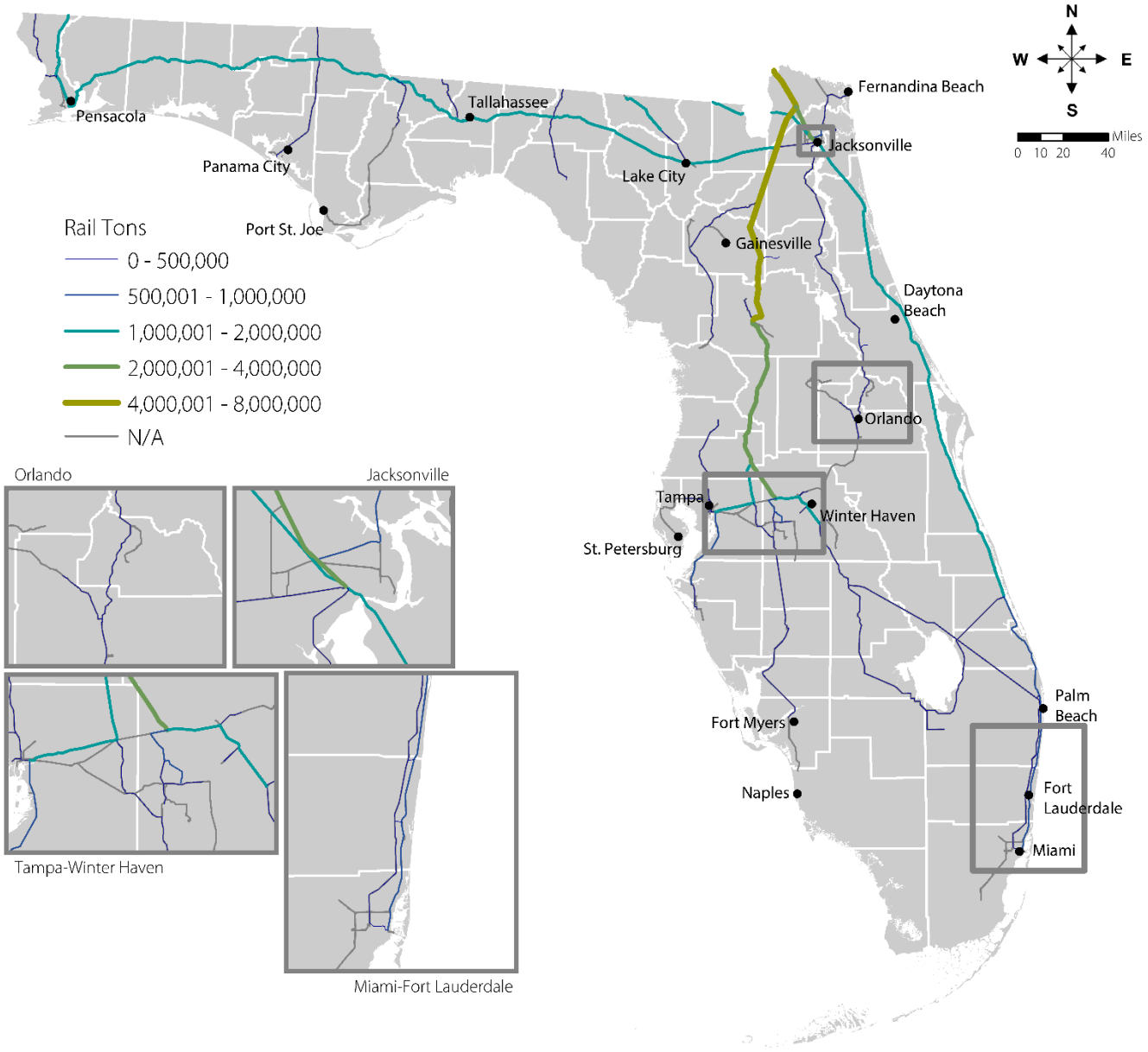
Table I-11: 2040 Commodity Forecast

STCC2	Commodity	Tons		Units		Value (in millions)		Average Value/Ton
		Amount	Percent	Amount	Percent	Amount	Percent	
01	Farm Prods.	155,205	1,556,442	28,050	111,520	1,851,217	155,205	1,556,442
08	Forest Prods.	400	6,536	0	0	6,936	400	6,536
09	Fresh Fish or Marine Prods.	0	10,981	0	0	10,981	0	10,981
10	Metallic Ores	23,530	22,831	0	0	46,362	23,530	22,831
11	Coal	0	10,434,564	0	0	10,434,564	0	10,434,564
13	Crude Petrol. or Natural Gas	0	25,380	0	0	25,380	0	25,380
14	Nonmetallic Minerals	50,380	6,389,825	16,274,297	17,485	22,731,988	50,380	6,389,825
19	Ordnance or Accessories	18,671	1,393	0	0	20,065	18,671	1,393
20	Food or Kindred Prods.	3,241,055	5,040,177	213,024	32,798	8,527,054	3,241,055	5,040,177
21	Tobacco Prods.	0	0	0	0	0	0	0
22	Textile Mill Prods.	27,478	3,296	0	0	30,774	27,478	3,296
23	Apparel or Related Prods.	28,507	151,006	0	0	179,513	28,507	151,006
24	Lumber or Wood Prods.	149,670	1,334,316	492,798	31,078	2,007,861	149,670	1,334,316
25	Furniture or Fixtures	36,190	99,079	8,982	0	144,252	36,190	99,079
26	Pulp, Paper or Allied Prods.	3,903,312	1,943,330	126,760	207,114	6,180,515	3,903,312	1,943,330
27	Printed Matter	8,563	79,322	0	0	87,885	8,563	79,322
28	Chemicals or Allied Prods.	4,998,718	4,834,615	4,809,429	1,255,383	15,898,145	4,998,718	4,834,615
29	Petroleum or Coal Prods.	11,687	573,687	14,585	234,053	834,012	11,687	573,687
30	Rubber or Misc Plastics	59,497	128,315	0	0	187,812	59,497	128,315
31	Leather or Leather Prods.	0	0	0	0	0	0	0
32	Clay, Concrete, Glass, or Stone	307,540	1,814,288	421,486	25,541	2,568,854	307,540	1,814,288
33	Primary Metal Prods.	141,889	653,115	22,938	56,237	874,179	141,889	653,115
34	Fabricated Metal Prods.	12,577	63,693	0	0	76,270	12,577	63,693
35	Machinery	164,073	120,609	0	0	284,682	164,073	120,609
36	Electrical Equipment	4,268	305,359	10,035	0	319,662	4,268	305,359
37	Transportation Equipment	64,955	4,102,143	42,887	22,058	4,232,042	64,955	4,102,143
38	Instrum., Photo Eq., Optical Eq.	7,866	70,444	0	0	78,310	7,866	70,444
39	Misc Manufacturing Prods.	9,185	32,226	2,075	0	43,487	9,185	32,226
40	Waste or Scrap Materials	2,342,029	486,527	454,039	40,031	3,322,627	2,342,029	486,527
41	Misc Freight Shipments	187,019	51,035	3,720	36,810	278,584	187,019	51,035
42	Shipping Containers	16,743,694	1,764,783	2,572,538	0	21,081,015	16,743,694	1,764,783
43	Mail or Contract Traffic	642	1,991	56,241	0	58,875	642	1,991
44	Freight Forwarder Traffic	95,658	321,764	123,240	0	540,662	95,658	321,764

STCC2	Commodity	Tons		Units		Value (in millions)		Average Value/Ton
		Amount	Percent	Amount	Percent	Amount	Percent	
45	Shipper Association Traffic	0	45,854	3,042	0	48,896	0	45,854
46	Misc Mixed Shipments	2,030,356	7,164,851	3,154,512	0	12,349,719	2,030,356	7,164,851
47	Small Packaged Shipments	0	20,424	28,740	0	49,163	0	20,424
48	Waste	0	0	0	3,560	3,560	0	0
49	Hazardous Materials	0	0	0	0	0	0	0
50	Secondary Traffic	0	0	0	0	0	0	0
60	Unclassified	0	0	0	0	0	0	0
	Total	34,824,614	49,654,203	28,863,418	2,073,669	115,415,904	34,824,614	49,654,203

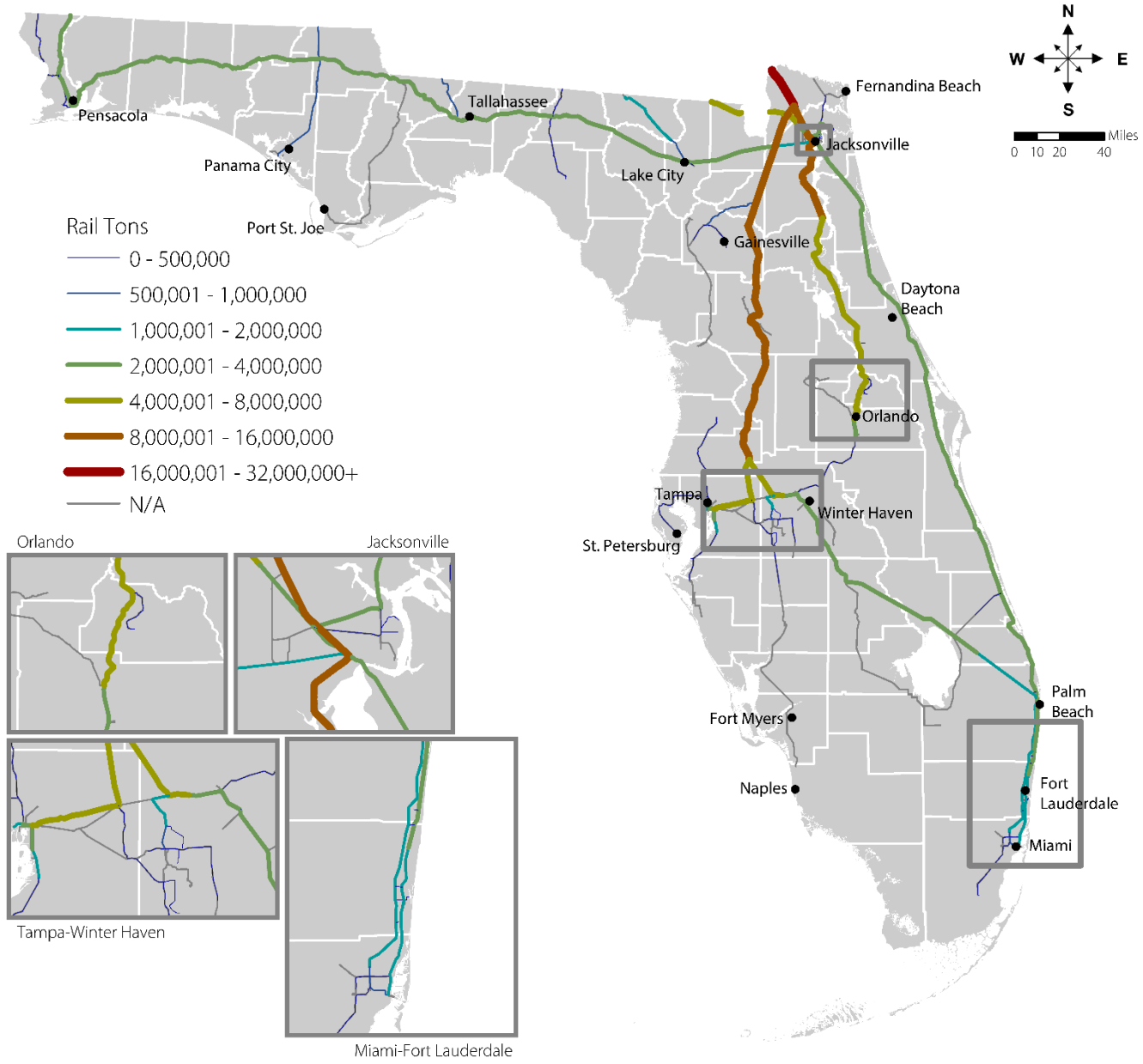
Source: Waybill, 2013 and Transearch CAGR, 2011-2040

Figure I-13: Florida Freight Rail Density (Outbound)



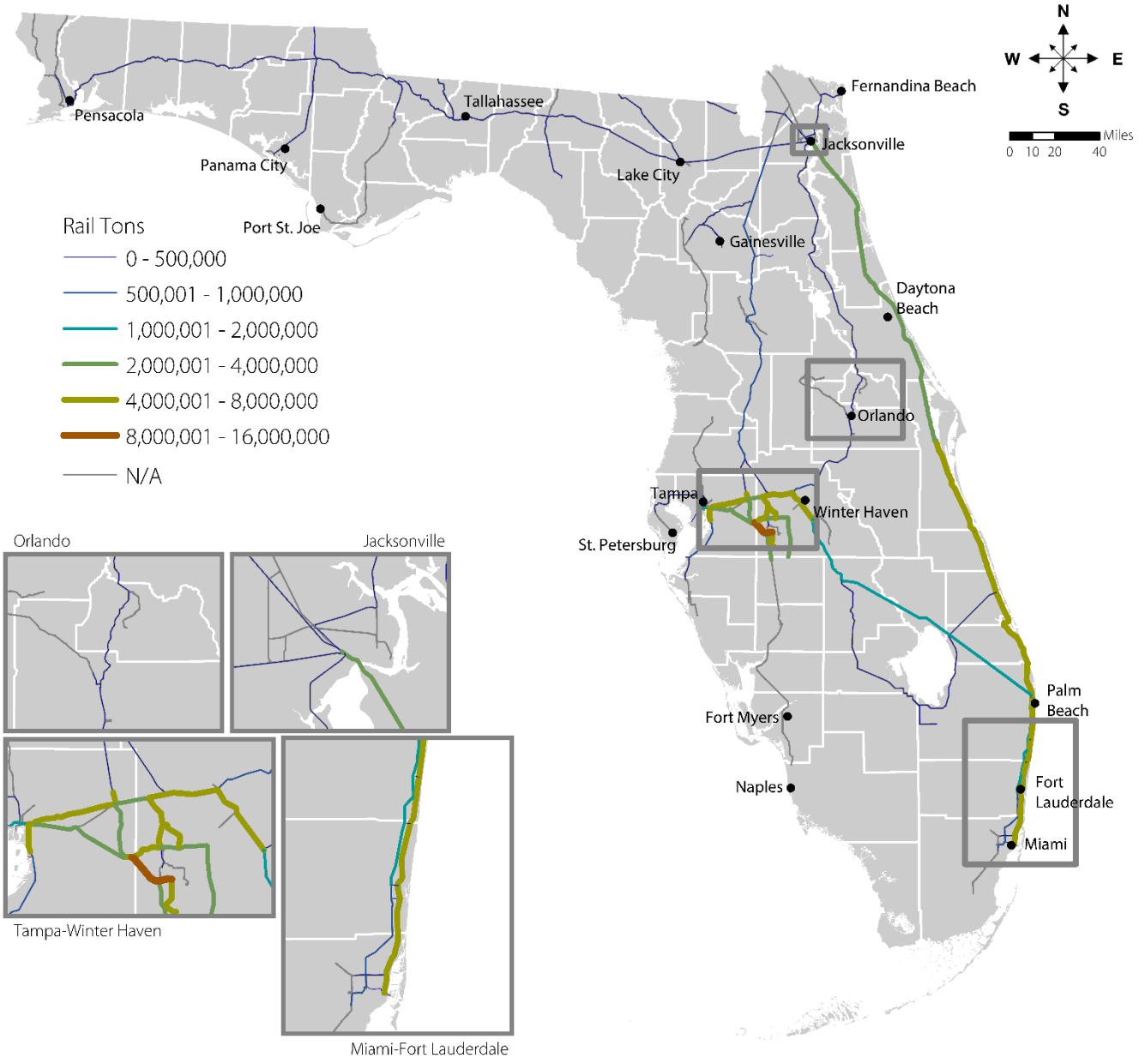
Source: Transearch 2011, Waybill 2013

Figure I-14: Florida Freight Rail Density (Inbound)



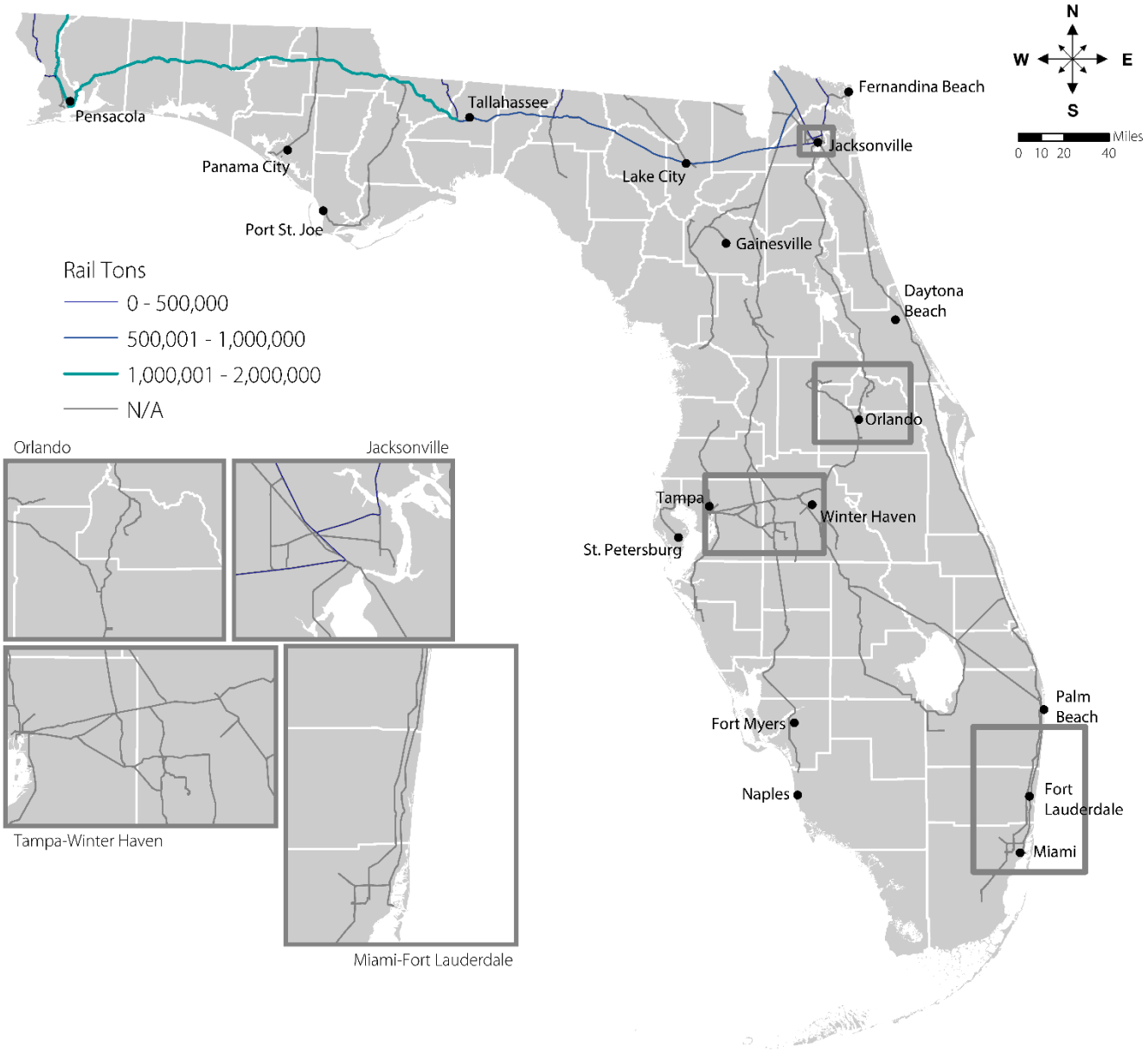
Source: Transearch 2011, Waybill 2013

Figure I-15: Florida Freight Rail Density (Intrastate):



Source: Transearch 2011, Waybill 2013

Figure I-16: Florida Freight Rail Density (Through)



Source: Transearch 2011, Waybill 2013

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