

# FLORIDA RAIL SYSTEM PLAN

DECEMBER 2022

## **Appendix E:**

Economic Impacts of Freight Rail

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### E.1 Introduction

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

The United States Surface Transportation Board (STB) RAILROAD 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.<sup>1</sup> Moreover, indirect impacts associated with suppliers, and induced impacts associated with the re-spending of earned income, are also quantified. Combined, the direct, indirect, and induced effects comprise total economic impacts, with each measured by employment, income, value-added (i.e., Gross State Product), economic output, and taxes.

### E.2 Approach

The analysis approach deployed in the economic impact analysis follows generally-accepted standards by identifying and categorizing the economic impacts related to freight rail. The following subsections outline the applied methodology, data sources, economic model, and the key inputs of freight movements.

#### E.2.1 Impact Approach and Terminology

Economic impacts of freight rail are categorized into two broad activities: 1) Freight rail service providers; and 2) Freight rail users. For each activity, three impact types were modeled: direct, indirect, and induced. Then, for each type, five measures were quantified: employment (in job-years), income, economic value-added, economic output, and taxes. These activities, types, and measures are defined below.

##### E.2.1.1 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 transportation (i.e., the rail industry) include a range of transport and support administrative operations. Service provider impacts are based on transportation industry information in the IMPLAN® model, reflecting only the freight component by subtracting the passenger 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.), excluding the rail industry itself. Shippers/receivers utilizing rail have several options available to transport freight and could

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<sup>1</sup> Freight rail volumes are available from the STB WAYBILL database. However, values for the movements are not supplied. Instead, values per ton (by commodity) from the TRANSEARCH® Florida database were applied to the STB WAYBILL volumes.

## Appendix E: Economic Impacts of Freight Rail

possibly substitute other modal transport (e.g., 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.

### E.2.1.2 Types

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

- **Direct** – Impacts from the provision of rail transportation (service providers), as well as 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 (inputs) 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.
  - Note that the indirect and induced types are often jointly referred to as multiplier effects/impacts.
- **Total** – Aggregated direct, indirect, and induced types.

### E.2.1.3 Measures

Each type is measured in terms of five economic metrics,<sup>2</sup> as follows:

- **Employment** – Measured in terms of full-time-equivalent (FTE) job-years.
- **Income** – Wage/salary earnings paid to the associated jobs.
- **Economic 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.
- **Economic Output** – Total market value of sales associated with all levels of economic activity (comprised of gross intermediate inputs and value added, combined). Note that gross output is not the same as gross regional/state product, which only includes economic value added.
- **Taxes** – Various taxes on production and imports (sales, property, excise, etc.) resulting from business economic activity.

## E.2.2 Data Sources and Models

Reflective of various industries, freight rail user impacts are much greater than those related to the facilitating of freight rail provision. Comprehensive user-related impacts require converting monetized commodity movement data into direct industry output estimates, conducted by bridging the STB RAILROAD WAYBILL commodity movement data and the IMPLAN® economic model.

### E.2.2.1 RAILROAD WAYBILL Sample

Based on the Standard Transportation Commodity Classifications (STCC) system developed for railroads, by the Surface Transportation Board, the WAYBILL provides detailed commodity movement data. It uses a 2 percent stratified sample of STB CARLOAD WAYBILLS for all

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<sup>2</sup> All monetary measures (i.e., income, value-added, output, and taxes) are presented in 2018 dollars.

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domestic rail traffic submitted by carriers that terminate 4,500 or more revenue carloads annually. STCC data were obtained from the WAYBILL 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 RAILROAD 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 RAILROAD WAYBILL volumes, effectively serving as a proxy estimate for the monetized directional commodity movements.

### E.2.2.2 IMPLAN®

The IMPLAN® v6 model, produced by 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) resulting from expenditures in an industry or commodity in a particular year.<sup>3</sup> 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.

### E.2.2.3 Combined Models

The RAILROAD WAYBILL commodity detail, supplemented with proxy values for the directional commodity tonnage movements, was 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.

## E.2.3 Freight Rail Movement – Tonnage and Value

Freight rail tonnage volumes and commodity values used in the economic analysis are based on the RAILROAD WAYBILL data and findings presented in Appendix I. The economically-relevant directional movements include: 1) Outbound (originating within Florida, terminating beyond); 2) Inbound (originating beyond Florida, terminating within); and 3) Intra (originating and terminating within Florida). However, through traffic is not directly applicable to freight users based in Florida, and is thus excluded; although, such movements affect the magnitude of freight transport service providers in Florida.

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<sup>3</sup> Note that all results presented pertain only to one-year (2018) static impacts, and do not provide any dynamic or feedback changes



## Appendix E: Economic Impacts of Freight Rail

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

- **Commodity Detail** – To facilitate translation between RAILROAD WAYBILL commodity categories to those of IMPLAN®, commodity flow data were analyzed from a detailed four-digit STCC level, whereas the freight flow analysis was aggregated at the two-digit STCC level;
- **Intrastate Movements** – Are combined with outbound movements because both reflect industry production within Florida; and
- **Excluding Non-Economic Movements** – RAILROAD WAYBILL data includes some movements that are not actual movements of economically-relevant goods, such as Shipping Containers, which are empty backhaul movements with no associated production value. Hence, such a commodity category was excluded.<sup>4</sup>

A consolidated summary of the economically-relevant movements is shown, for the top 10 commodities by value, in Table E-1.

Table E-1 | Economically-Relevant Freight Rail Movements in Florida, 2018

Commodity Category	Tons		Value (in millions)		Average Value/Ton
	Amount	Percent	Amount	Percent	
OUTBOUND/INTRA					
Misc. Mixed Shipments	5,327,119	13.2%	\$27,290,267,630	59.0%	\$5,123
Misc. Freight Shipments	38,328	0.1%	\$4,357,155,423	9.4%	\$113,681
Chemicals or Allied Products	6,685,186	16.6%	\$4,103,901,163	8.9%	\$614
Pulp, Paper or Allied Products	2,520,686	6.3%	\$2,489,276,309	5.4%	\$988
Food or Kindred Products	1,686,937	4.2%	\$1,285,981,866	2.8%	\$762
Apparel or Related Products	186,137	0.5%	\$1,216,843,059	2.6%	\$6,537
Transportation Equipment	158,236	0.4%	\$1,212,534,371	2.6%	\$7,663
Machinery	100,917	0.3%	\$974,248,151	2.1%	\$9,654
Nonmetallic Minerals	19,271,968	47.9%	\$808,729,160	1.7%	\$42
Metallic Ores	104,641	0.3%	\$384,639,653	0.8%	\$3,676
Remaining Commodities	4,144,359	10.3%	\$2,149,865,791	4.6%	\$519
Total	40,224,514	100.0%	\$46,273,442,576	100.0%	\$1,150
INBOUND					
Transportation Equipment	2,099,180	5.7%	\$21,149,860,324	33.1%	\$10,075
Misc. Mixed Shipments	3,713,802	10.1%	\$18,454,973,498	28.9%	\$4,969
Chemicals or Allied Products	4,506,989	12.3%	\$5,353,642,344	8.4%	\$1,188
Food or Kindred Products	3,212,610	8.7%	\$4,639,330,969	7.3%	\$1,444
Misc. Freight Shipments	22,400	0.1%	\$4,302,330,303	6.7%	\$192,068

<sup>4</sup> The only value associated with such shipping container movements is reflected under freight service provider impacts.

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Commodity Category	Tons		Value (in millions)		Average Value/Ton
	Amount	Percent	Amount	Percent	
Apparel or Related Products	418,279	1.1%	\$2,866,001,802	4.5%	\$6,852
Primary Metal Products	766,398	2.1%	\$1,124,306,224	1.8%	\$1,467
Pulp, Paper or Allied Products	1,021,973	2.8%	\$1,023,773,525	1.6%	\$1,002
Electrical Equipment	143,582	0.4%	\$767,570,981	1.2%	\$5,346
Clay, Concrete, Glass or Stone	1,467,372	4.0%	\$584,193,018	0.9%	\$398
Remaining Commodities	19,358,784	52.7%	\$3,623,400,031	5.7%	\$187
<b>Total</b>	<b>36,731,369</b>	<b>100.0%</b>	<b>\$63,889,383,019</b>	<b>100.0%</b>	<b>\$1,739</b>

Source: WAYBILL data.

### E.2.3.1 Outbound/Intrastate Movements

Combining outbound and intrastate rail movements, 40.2 million tons of freight, valued at \$46.3 billion, originated in Florida in 2018. Nonmetallic Minerals and Chemicals or Allied Products comprise the majority (64.5 percent, combined) of originating freight tonnage. However, the outbound/intrastate commodity with the largest value (at \$27.3 billion) was within the Miscellaneous Mixed Shipments category, which is composed of predominately containers with a heterogeneous composition of goods. These 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.

### E.2.3.2 Inbound Movements

In 2018, 36.7 million tons were moved into Florida, valued at \$63.9 billion. Chemicals or Allied Products followed by Miscellaneous Mixed Shipments are the largest commodity categories measured by movement volume/tonnage, while Transportation Equipment and Miscellaneous Mixed Shipments are the largest inbound commodity categories by value, comprising almost two-thirds of all inbound value.

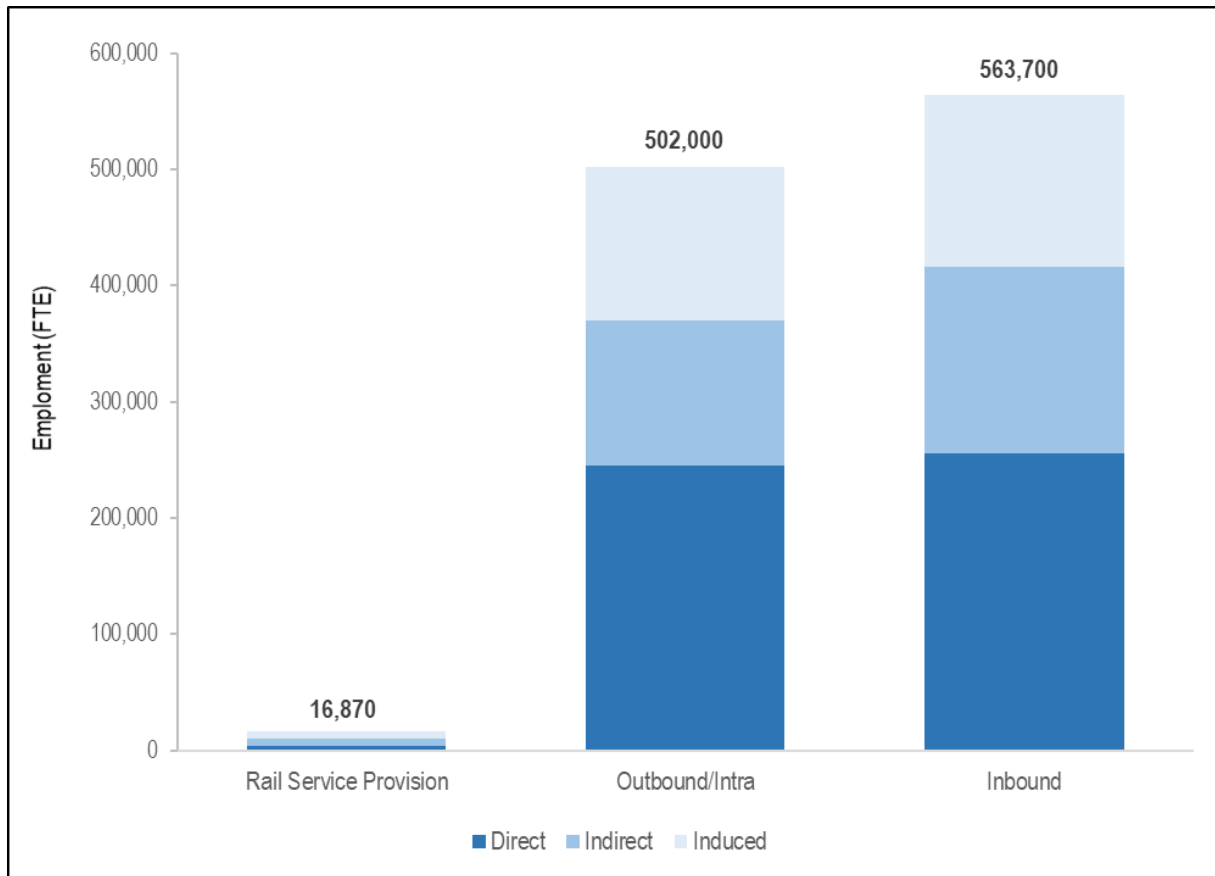
## E.3 Freight Rail Economic Impact

Freight rail impacts 1,082,570 total job-years across Florida, reflecting both the provision and user activities and impact types (direct plus multipliers). A vast majority of these total employment impacts (1,065,700) arise from rail users that move goods via the freight rail system (and the multiplier impacts associated with the direct freight rail users), with the fractional balance (16,870) attributable to freight transport/provision services. As shown in the chart below, the employment impacts linked to inbound users are greater than the other impact activities.



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Figure E-1 | Freight Rail Employment Impact Summary by Activity and Type \*



\* Employment rounded to the nearest 10 job-years.

Summary freight rail impacts pertaining to employment, as well as other key metrics are shown in Table E-2. The labor income associated with the employment totaled \$56.3 billion, while the total economic value added (contribution to the GSP) was \$83.0 billion, including \$6 billion in taxes on production and imports. The overall economic output impact of freight rail in 2018 amounted to \$206.3 billion.

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Table E-2 | Freight Rail Impacts Summary, 2018

Measure and Type	Rail Service Provision	Freight Rail Users			Service and Freight Users Total
		Outbound/Intra	Inbound	All Directions	
OUTPUT *					
Direct	\$1,813	\$46,273	\$63,889	\$110,163	\$111,976
Indirect	\$1,019	\$21,959	\$28,689	\$50,648	\$51,667
Induced	\$949	\$19,663	\$22,007	\$41,671	\$42,620
Total	\$3,781	\$87,896	\$114,586	\$202,482	\$206,263
EMPLOYMENT **					
Direct	4,450	245,230	256,140	501,370	505,820
Indirect	6,060	124,960	160,080	285,040	291,100
Induced	6,360	131,810	147,480	279,290	285,650
Total	16,870	502,000	563,700	1,065,700	1,082,570
LABOR INCOME *					
Direct	\$622	\$12,725	\$13,203	\$25,928	\$26,550
Indirect	\$341	\$7,205	\$9,101	\$16,306	\$16,647
Induced	\$292	\$6,045	\$6,764	\$12,809	\$13,101
Total	\$1,254	\$25,975	\$29,069	\$55,044	\$56,298
TOTAL VALUE ADDED *					
Direct	\$750	\$15,270	\$16,422	\$31,692	\$32,442
Indirect	\$550	\$11,295	\$14,611	\$25,905	\$26,455
Induced	\$538	\$11,130	\$12,458	\$23,588	\$24,126
Total	\$1,837	\$37,696	\$43,490	\$81,186	\$83,023
TAX ON PRODUCTION AND IMPORTS *					
Direct	\$18	\$508	\$650	\$1,158	\$1,175
Indirect	\$75	\$1,008	\$1,325	\$2,334	\$2,408
Induced	\$54	\$1,117	\$1,251	\$2,368	\$2,422
Total	\$146	\$2,633	\$3,226	\$5,859	\$6,005

\* Monetary values are in millions of 2018 dollars.

\*\* Employment rounded to the nearest 10 job-years.

Source: Based on IMPLAN® and WAYBILL data.

The following sections provide details on the composition of the estimated economic impacts; starting with freight transport services, followed by those related to freight users.

### E.3.1 Freight Rail Service Provision Impact

Freight rail service provision-related impacts account for about 2 percent of all Florida freight rail impacts.

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- **Direct** – Freight rail provision yields a direct impact of 4,450 jobs, earning \$622 million in labor income, producing \$750 million in value-added activity, and totaling \$1.8 billion in economic output; with taxes on such direct output equating to \$18 million.
- **Total** – Including the Florida multiplier effects, rail transportation service-related activity impacts total 16,870 jobs, earning \$1.3 billion in labor income, producing \$1.8 billion in economic value-added, totaling \$3.8 billion in economic output, and yielding a tax on production and imports impact of \$146 million.

### E.3.2 Freight Rail Users Impact

Shippers generate significant economic impacts through their reliance on freight rail services to receive and/or ship freight. While these businesses are not entirely dependent on just rail for shipping freight, as alternative modes, such as trucking, are available, their continued operations would be heavily impaired without such rail 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 transportation costs (e.g., due to longer transport distances, higher prices, unfavorable logistics, etc.), and could increase overall transportation demand (and resulting handling costs) for other modal users, both for the diverted rail users as well as current users. The long-term result would be outmigration of industry away from Florida to other locations with relatively better rail accessibility and more favorable modal options/mix.

Impacts associated with rail tonnage movements require 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<sup>®</sup> 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., in terms of employment, income, etc.), and estimates of 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 vs. to outbound (i.e., between 53 percent and 57 percent of the freight-user impacts are inbound-related, depending on impact measure).<sup>5</sup>

#### E.3.2.1 Outbound/Intrastate

Over 40.2 million tons of economically-relevant freight originating in Florida were either shipped via rail out-of-state or internally in 2018. Combined, rail freight originating in Florida was valued at \$46.3 billion, generating an estimated 502,000 total jobs, and \$37.7 billion in economic value added.

#### E.3.2.2 Inbound

Over 36.7 million tons of economically-relevant inbound freight (originating beyond Florida, and terminating within the state) valued at about \$63.9 billion was used by Florida industries and

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<sup>5</sup> Note that there may be some overlap between some of the directional flows and impacts, but those are challenging to pinpoint precisely, and likely account for only a small fraction of total freight user impact.

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institutions to generate 563,700 total jobs, and \$43.5 billion in economic value added. Inbound freight user impacts comprise intermediate and final 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. Intermediately-demanded physical commodities imported via rail are used/absorbed by Florida industries in their production processes based on relative commodity absorption patterns.

### E.3.3 Total Freight Rail Impacts

While the basic provision of freight rail services generates a relatively modest 4,450 direct jobs (16,870 in total, including the multiplier effects), freight rail users generate 501,370 direct jobs (1.07 million in total).

- **Direct** – Combining the freight rail-related activities – both service provision and users – yields a direct impact of 505,820 jobs, earning \$26.6 billion in labor income, producing \$32.4 billion in economic value-added, and \$112.0 billion in economic output, and yielding taxes on such direct output of \$1.2 billion.
- **Total** – Including the multipliers, the impacts total 1.08 million job-years, earning \$56.3 billion in labor income, producing \$83.0 billion in economic value-added, equating to a total economic output of \$206.3 billion, and yielding a tax impact of \$6.0 billion.

#### E.3.3.1 Impacts as Percentage of the State Economy

It is important to contextualize the preceding economic impact estimates, as it may be difficult to visualize the many jobs and billions of dollars, etc. on a standalone basis. To that effect, the economic impacts of freight rail are compared to the economic composition of Florida in 2018, by the same economic measures as the presented economic impacts, shown in Table E-3.

Total economic impacts associated with freight rail in Florida range between 7.1 percent (tax) to 11.1 percent (economic output) of the statewide economy, depending on the measure.

Table E-3 | Relativity of Impacts by Measure, 2018

Economic Measure	State Value	Total Freight Rail Impacts	
		Value	Percentage
Employment	12,123,215	1,082,570	8.9%
Labor Income*	\$620,246	\$56,298	9.1%
Total Value Added*	\$1,032,345	\$83,023	8.0%
Output*	\$1,851,489	\$206,263	11.1%
Tax on Production and Imports*	\$84,008	\$6,005	7.1%

\* In millions of 2018 dollars.

Source: Based on IMPLAN® data.

Freight impact percentages, compared to the overall state economy, are also shown with more detail – by impact activity, measure, and type – in Table E-4.

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Table E-4 | Impacts as Percentage of Florida Economy

Measure and Type	Rail Service Provision	Freight Rail Users			Service and Freight Users Total
		Outbound/Intra	Inbound	All Directions	
OUTPUT					
Direct	0.10%	2.5%	3.5%	5.9%	6.0%
Indirect	0.06%	1.2%	1.5%	2.7%	2.8%
Induced	0.05%	1.1%	1.2%	2.3%	2.3%
Total	0.20%	4.7%	6.2%	10.9%	11.1%
EMPLOYMENT					
Direct	0.04%	2.0%	2.1%	4.1%	4.2%
Indirect	0.05%	1.0%	1.3%	2.4%	2.4%
Induced	0.05%	1.1%	1.2%	2.3%	2.4%
Total	0.14%	4.1%	4.6%	8.8%	8.9%
LABOR INCOME					
Direct	0.10%	2.1%	2.1%	4.2%	4.3%
Indirect	0.05%	1.2%	1.5%	2.6%	2.7%
Induced	0.05%	1.0%	1.1%	2.1%	2.1%
Total	0.20%	4.2%	4.7%	8.9%	9.1%
TOTAL VALUE ADDED					
Direct	0.07%	1.5%	1.6%	3.1%	3.1%
Indirect	0.05%	1.1%	1.4%	2.5%	2.6%
Induced	0.05%	1.1%	1.2%	2.3%	2.3%
Total	0.18%	3.7%	4.2%	7.9%	8.0%
TAX ON PRODUCTION AND IMPORTS					
Direct	0.02%	0.6%	0.8%	1.4%	1.4%
Indirect	0.09%	1.2%	1.6%	2.8%	2.9%
Induced	0.06%	1.3%	1.5%	2.8%	2.9%
Total	0.17%	3.1%	3.8%	7.0%	7.1%

Source: Based on IMPLAN® data.

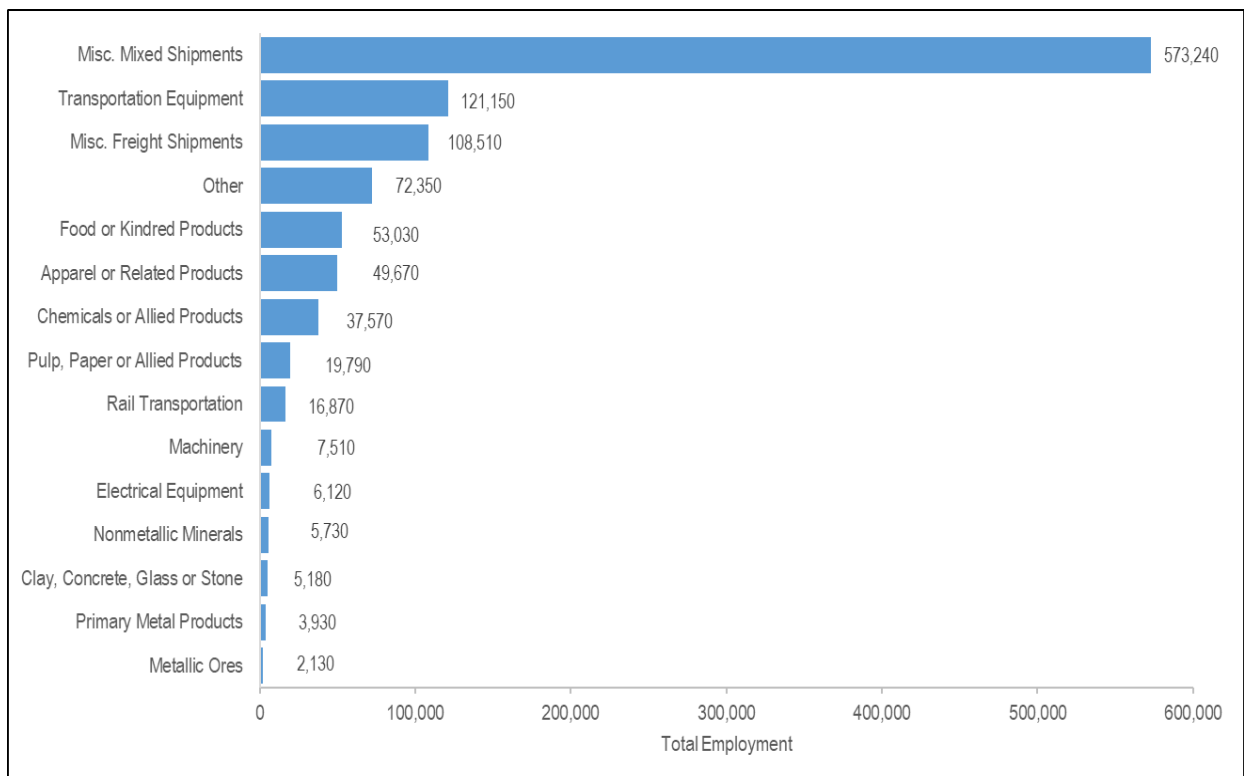
## Appendix E: Economic Impacts of Freight Rail

### GE.3.3.1.1 Employment Impacts

Industry visualization of aggregate employment composition (rail service providers and users) facilitates an additional perspective on how freight rail affects the state economy.

The estimated annual employment impacts are shown by industry and impact type in Figure G-2 and Table E-5. The key point is that rail transport impacts industries differently. Overall, the industry with the largest estimated employment impact (at 573,240 job-years) is estimated to be the Miscellaneous Mixed Shipments, followed by Transportation Equipment (at 121,150 job-years).

Figure E-2 | Freight Employment Impact by Industry



\* Employment impacts are rounded to the nearest 10 job-years.



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Table E-5 | Freight Employment Impact by Industry

Industry Description	Direct	Indirect	Induced	Total Employment
Misc. Mixed Shipments	294,220	129,120	149,820	573,240
Transportation Equipment	42,770	43,220	35,120	121,150
Misc. Freight Shipments	55,690	24,440	28,360	108,510
Other	37,130	16,300	18,910	72,350
Food or Kindred Products	15,680	25,360	11,990	53,030
Apparel or Related Products	30,860	10,030	8,780	49,670
Chemicals or Allied Products	8,350	17,730	11,450	37,570
Pulp, Paper or Allied Products	4,880	8,520	6,380	19,790
Rail Transportation	4,450	6,060	6,360	16,870
Machinery	2,780	2,520	2,210	7,510
Electrical Equipment	2,600	1,720	1,800	6,120
Nonmetallic Minerals	2,220	1,850	1,670	5,730
Clay, Concrete, Glass or Stone	1,860	1,840	1,480	5,180
Primary Metal Products	1,460	1,770	700	3,930
Metallic Ores	860	630	630	2,130
<b>Total</b>	<b>505,810</b>	<b>291,110</b>	<b>285,660</b>	<b>1,082,780</b>

\* Employment impacts are rounded to the nearest 10 job-years.

### E.4 Summary

Freight rail facilitates movement of goods and, consequently, feeds into economic activity associated with conversion of intermediate goods in production processes and into final goods for consumption. As the freight volumes are translated into economic impacts, the analysis demonstrates that freight rail activities serve a vital role in Florida's economy. Such economic impact analysis provides a complementary perspective to traditional freight-related analyses that predominately emphasizes the volume (e.g., units and/or tonnage) of the movements and the capacity of the transportation route.

The economic impacts from freight rail span various industries of the statewide economy, and are summarized to amount to the following:

- **Employment** – Economic impacts of freight rail extend beyond the 4,450 directly employed in the provision of freight rail transportation service in 2018. When the freight user impact activities and the multiplier effects are included, freight rail-related employment in Florida totals 1.08 million job-years, which represented about 8.9 percent of the total statewide employment.
- **Income** – About \$26.6 billion in direct and \$56.3 billion in total labor income was earned by these total impacted employees in 2018, representing about 9.1 percent of Florida's total labor income.
- **Economic Value-Added** – The combined value-added impact, at \$83.0 billion, associated with the freight rail services and users represented about 8.0 percent of Florida's 2018 Gross State Product.

While it would be inaccurate to conclude that all of these impacts are solely dependent on only freight rail, and would go away if freight rail completely disappeared (assuming absolutely no modal substitution), the findings demonstrate that freight 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 that transport materials, component parts, and products.

In conclusion, the freight rail industry not only 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 produce economic value added and employment, contributing to the magnitude and diversification of the Florida economy.



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