FRA LONG-DISTANCE SERVICE STUDY

Southeast Regional Working Group Meeting

January 31, 2023
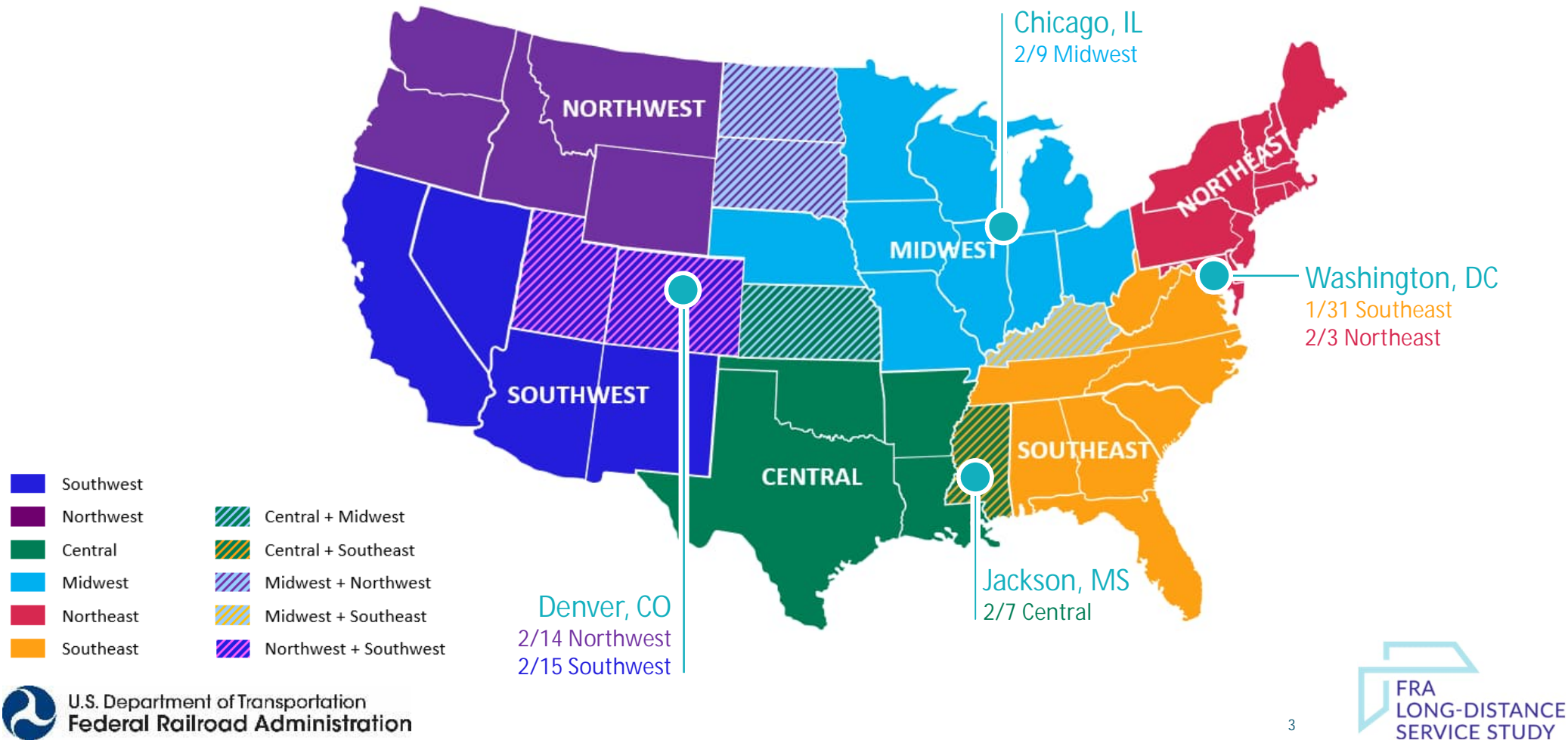
Agenda – Southeast Regional Working Group Meeting

- Welcome & Introductions
- Long-Distance Service 101 and Study Overview
- Current Long-Distance Network and Routes
- Pre-1971 and Discontinued Routes
- Baseline and Market Conditions
- Potential New Market Connections and Opportunities
- Evaluation Factors Review and Discussion
- Amtrak and Communities Working Together
- Closing and Next Steps

This document contains materials specific to the Southeast Region for the following agenda items:
- Current Long-Distance Network and Routes
- Baseline and Market Conditions

Additional materials about the FRA Long-Distance Service Study presented at each Regional Working Group Meeting are available on the project website: https://fralongdistancerailstudy.org/meeting-materials/

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Long-Distance Service Study: Working Group Meeting 1 (Southeast)

Chicago, IL
2/9 Midwest

Washington, DC
1/31 Southeast
2/3 Northeast

Jackson, MS
2/7 Central

Denver, CO
2/14 Northwest
2/15 Southwest

Legend:
- Southwest
- Northwest
- Central
- Midwest
- Northeast
- Southeast
- Central + Midwest
- Central + Southeast
- Midwest + Northwest
- Midwest + Southeast
- Northwest + Southwest

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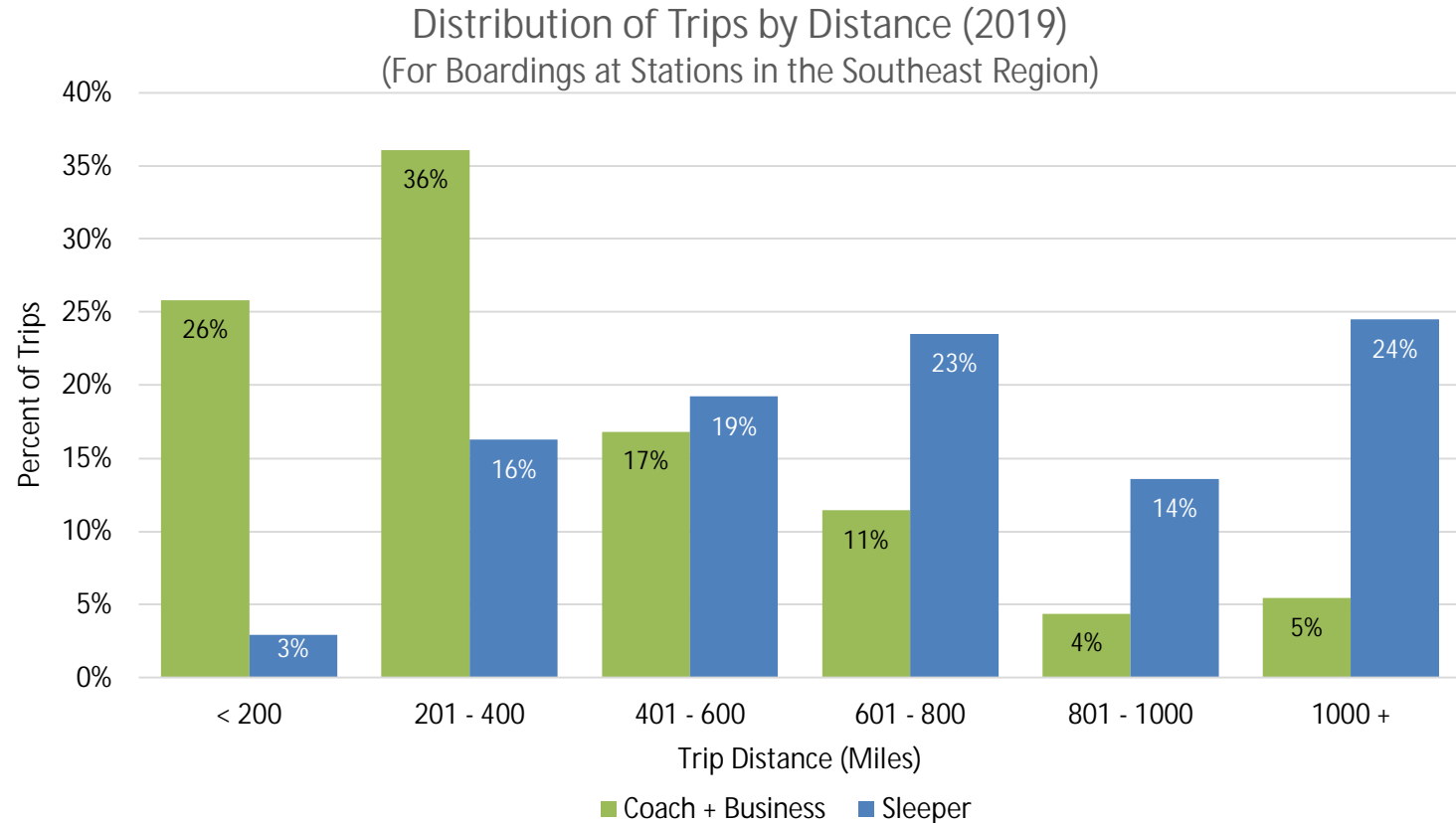
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CURRENT LONG-DISTANCE NETWORK & ROUTES – SOUTHEAST

Southeast Long-Distance Service and Performance

Average Trip Length: Southeast Region

- Trips originating in the Southeast Region are shorter than for Long-Distance service overall

- 62% of Coach and Business Class trips are less than 400 miles, compared to 61% for Long-Distance overall

- 24% of Sleeper Class trips are greater than 1,000 miles, compared to 41% for Long-Distance overall

Distribution of Trips by Distance (2019)
(For Boardings at Stations in the Southeast Region)

Chart — Percent of Trips vs Trip Distance (Miles)

Trip Distance (Miles)	Coach + Business	Sleeper
< 200	26%	3%
201 - 400	36%	16%
401 - 600	17%	19%
601 - 800	11%	23%
801 - 1000	4%	14%
1000 +	5%	24%

Legend: ■ Coach + Business ■ Sleeper

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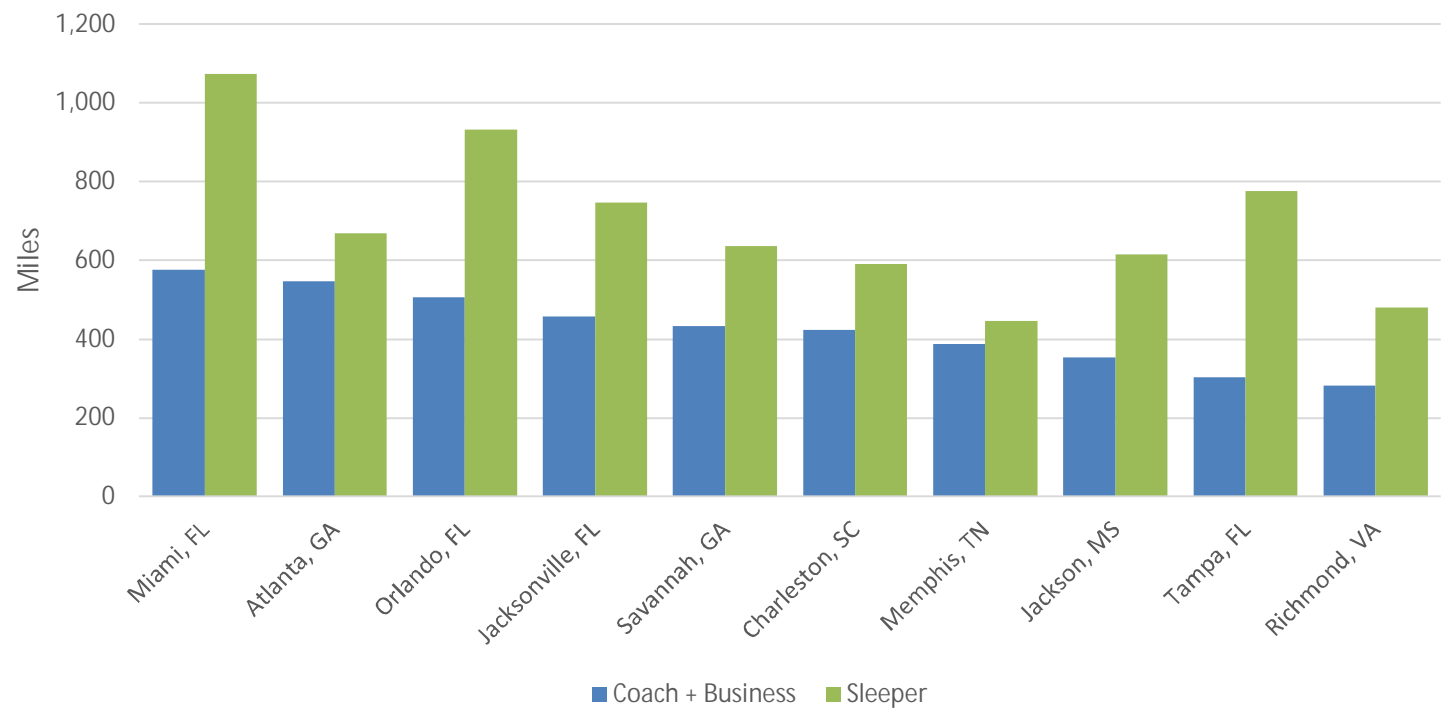
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Southeast Long-Distance Service and Performance

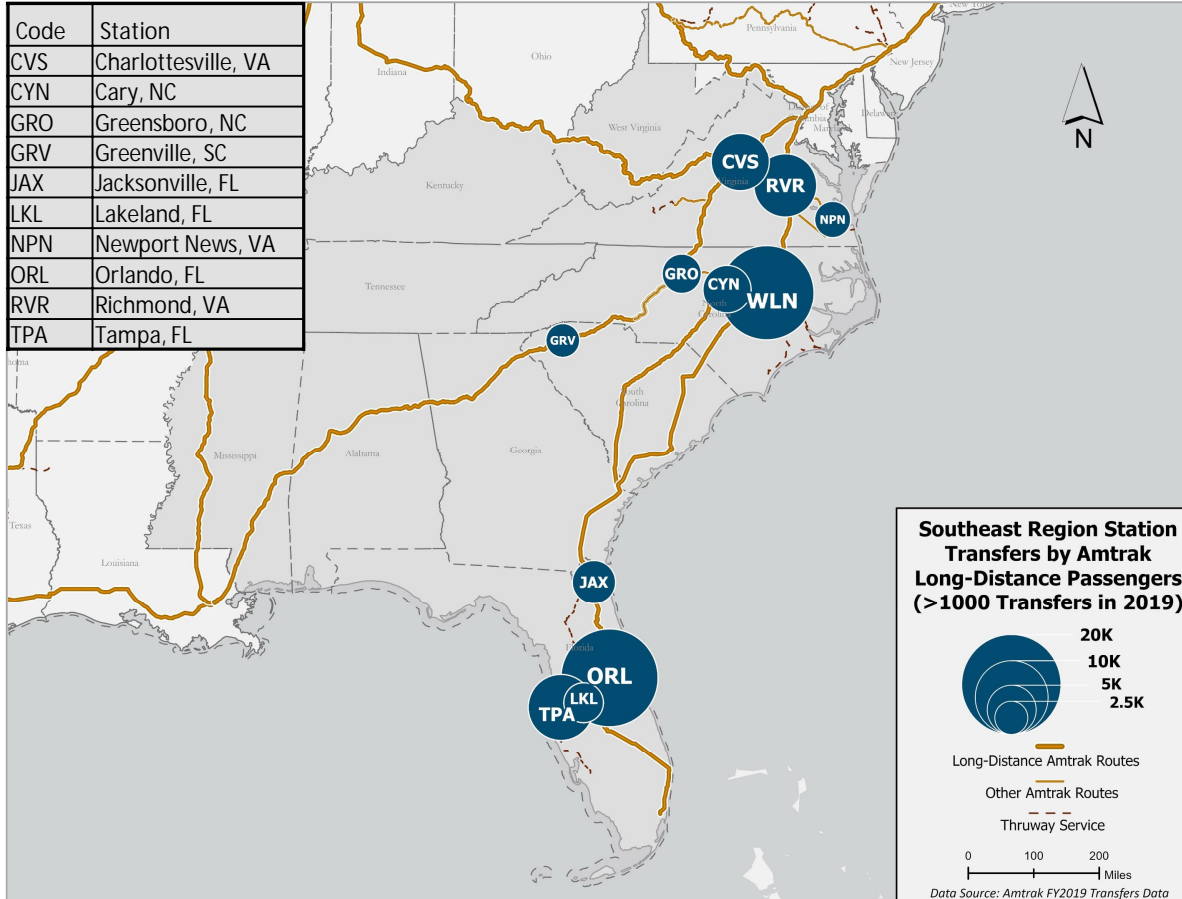## Trip Length by Service Class

- Average trip length by service class for riders on Long-Distance routes boarding at stations in the Southeast Region

- Miami, served by the *Silver Meteor* and the *Silver Star*, has the longest distance trips on average

Top 10 Stations in the Southeast Region by Total Boardings (2019)
Average Trip Distance by Service Class

Legend: ■ Coach + Business ■ Sleeper

Source: Amtrak, Fiscal Year 2019. Data on trips by route, service class, and trip distance.
Note: Does not include *Auto Train*. One Long-Distance route in the Southeast Region, the *Palmetto,* includes Business Class in addition to Coach Class.

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Southeast Service and Performance Characteristics

Code	Station
CVS	Charlottesville, VA
CYN	Cary, NC
GRO	Greensboro, NC
GRV	Greenville, SC
JAX	Jacksonville, FL
LKL	Lakeland, FL
NPN	Newport News, VA
ORL	Orlando, FL
RVR	Richmond, VA
TPA	Tampa, FL

Southeast Region Station Transfers by Amtrak Long-Distance Passengers (>1000 Transfers in 2019)

20K
10K
5K
2.5K

Long-Distance Amtrak Routes

Other Amtrak Routes

Thruway Service

0   100   200 Miles

Data Source: Amtrak FY2019 Transfers Data

Long-Distance Passenger Transfers in the Southeast Region*

- Stations with more than 1,000 transfers in 2019

- Top transfer stations
  - Orlando, FL (17K)
  - Wilson, NC (16K)
  - Tampa, FL (9K)

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* Includes Long-Distance passenger transfers between Amtrak Services (Long-Distance service, State-Supported services, Amtrak Thruway Bus services). Map may not show all Thruway Bus Services.

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Southeast Service and Performance Characteristics

Data source: Schedule skeletons provided by Amtrak

Legend:
- Nighttime Running (11 PM – 5 AM Local Time)
- Daytime Running
- Nighttime Running Long-Distance & Daytime Running State Supported
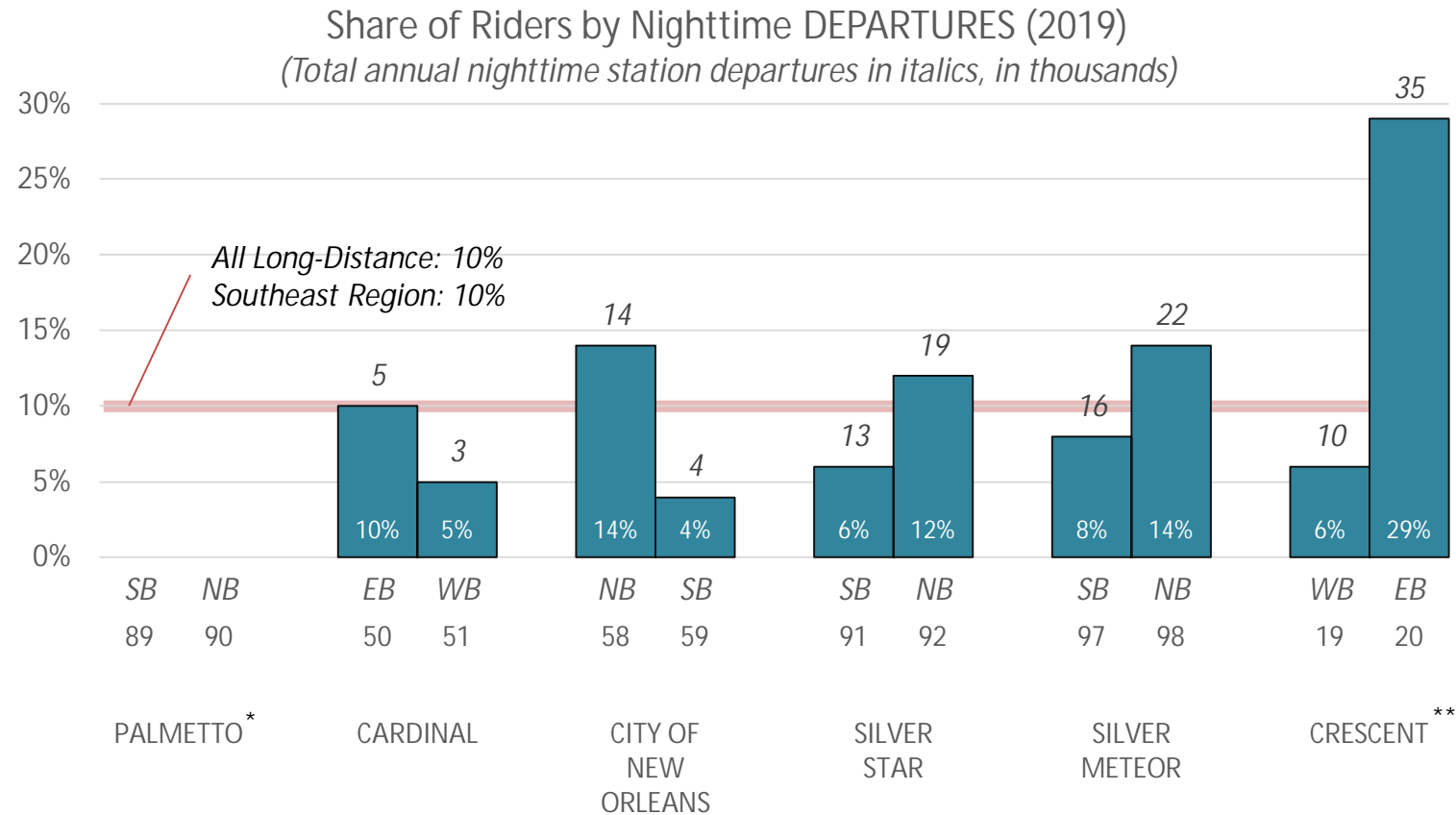
↕ Train Direction
\# Train Number

Daytime and Nighttime Service

- Long-distance routes in the Southeast Region have a one-night journey, except for *Palmetto*

- Larger markets served at night
  - Atlanta (*Crescent* NB)
  - Charlotte (*Crescent* SB)
  - Jacksonville, FL (*Silver Star* NB)
  - Savannah and Columbia, SC (*Silver Star* NB and SB)

- Smaller markets served at night
  - Stations between Atlanta and Charlotte
  - Stations in North Carolina and South Carolina are served both night and day depending on the route/train

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Southeast Long-Distance Service and Performance

Time of Day Analysis: Nighttime Departures

- Departures at stations in the Southeast Region only

- There are more nighttime departures on northbound and eastbound trips

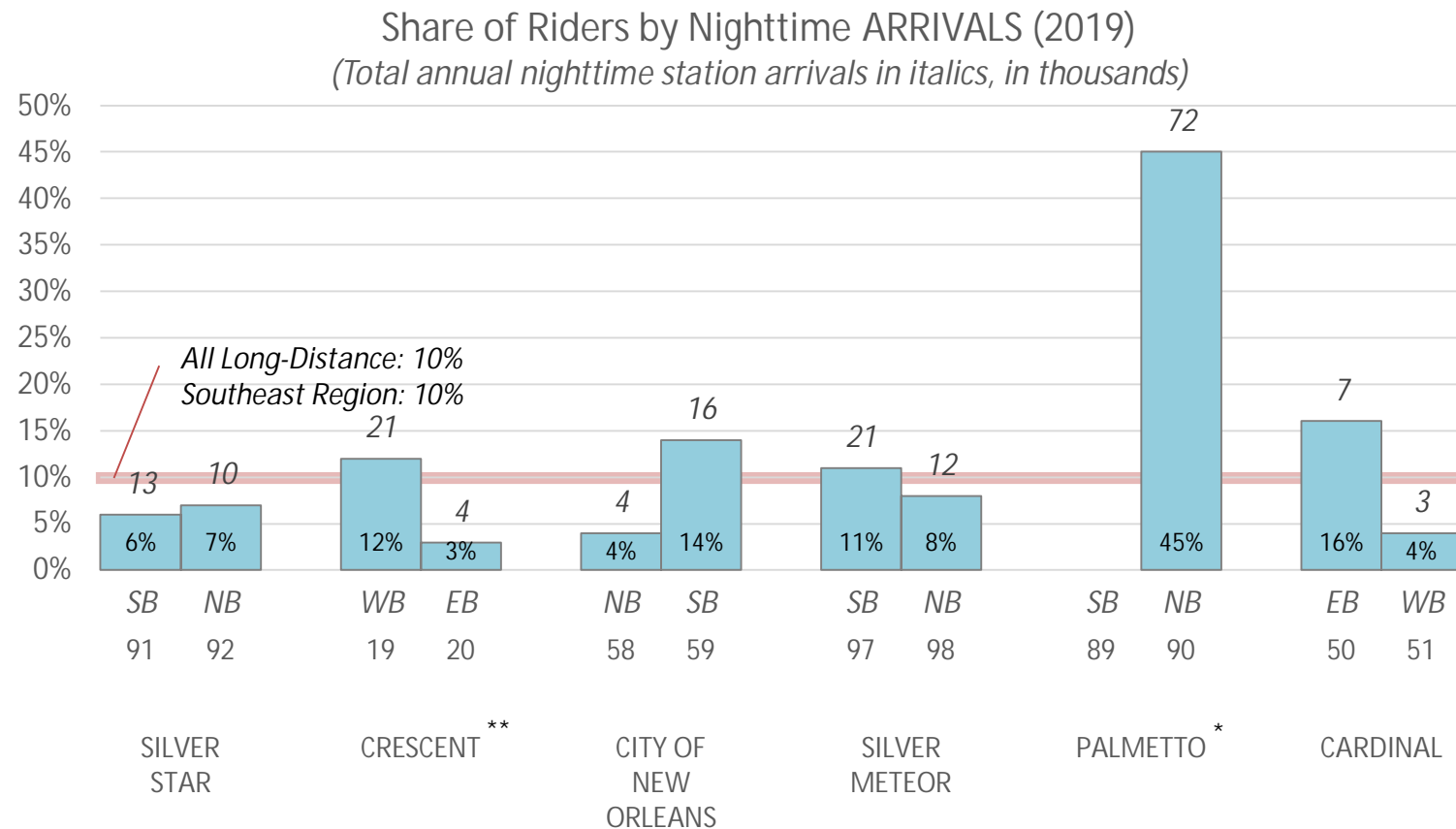- The greatest share of nighttime departures occur on the eastbound *Crescent* in Atlanta, GA

Share of Riders by Nighttime DEPARTURES (2019)
(Total annual nighttime station departures in italics, in thousands)

All Long-Distance: 10%
Southeast Region: 10%

	PALMETTO*		CARDINAL		CITY OF NEW ORLEANS		SILVER STAR		SILVER METEOR		CRESCENT**	
Direction	SB	NB	EB	WB	NB	SB	SB	NB	SB	NB	WB	EB
Total (thousands)			5	3	14	4	13	19	16	22	10	35
Share			10%	5%	14%	4%	6%	12%	8%	14%	6%	29%
Station #	89	90	50	51	58	59	91	92	97	98	19	20

* Palmetto does not have nighttime departures
** Crescent: 2022 schedule update changed nighttime service

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Southeast Long-Distance Service and Performance

Time of Day Analysis: Nighttime Arrivals

- Arrivals at stations in the Southeast Region only

- The greatest share of nighttime arrivals occur on the northbound *Palmetto* – this is mainly due to its scheduled arrival time after 11 p.m. at Newark, NJ and New York Penn Station

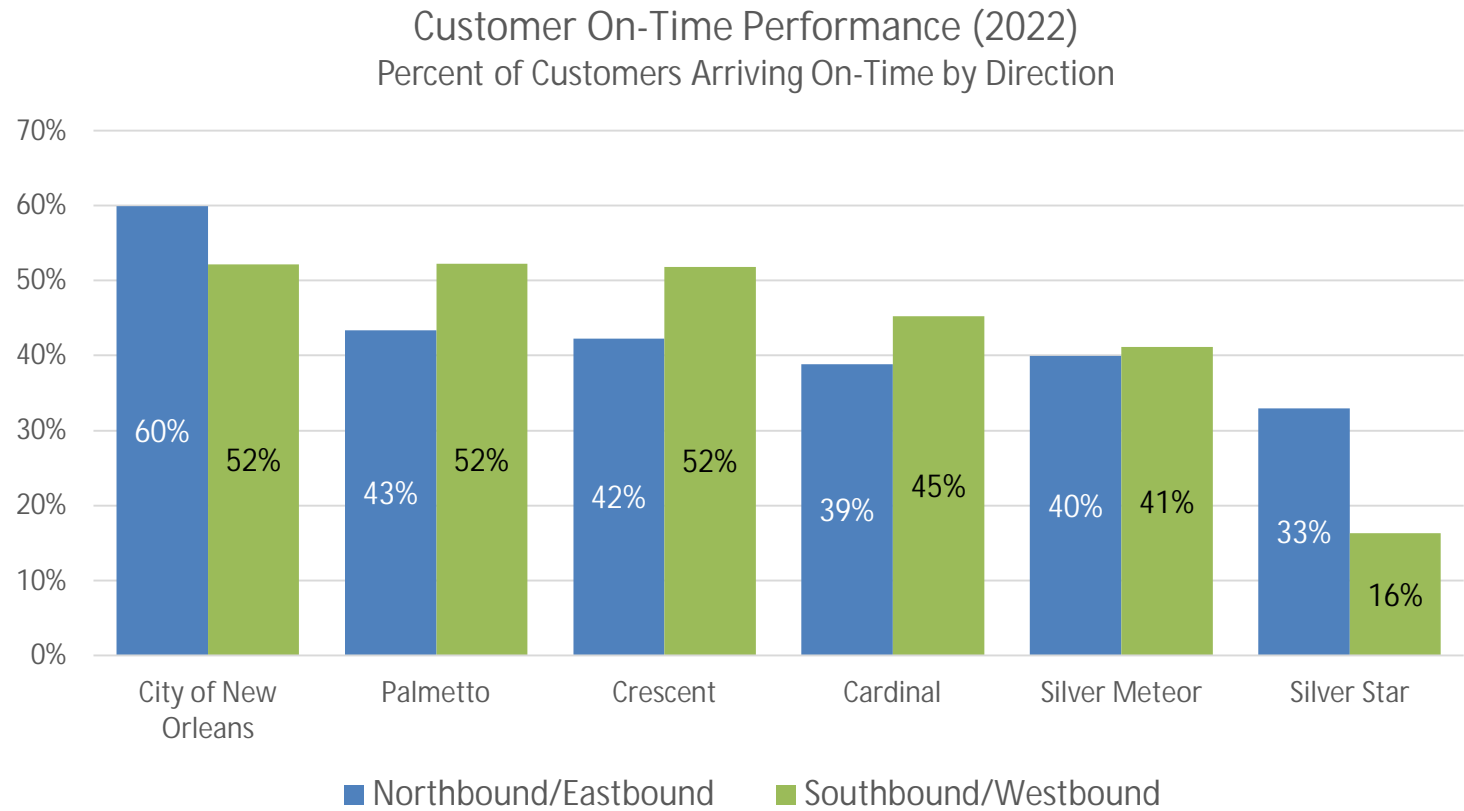- Second largest share of nighttime arrivals is the eastbound *Cardinal*

Share of Riders by Nighttime ARRIVALS (2019)
(Total annual nighttime station arrivals in italics, in thousands)

All Long-Distance: 10%
Southeast Region: 10%

13	*10*	*21*	*4*	*4*	*16*	*21*	*12*		*72*	*7*	*3*
6%	7%	12%	3%	4%	14%	11%	8%		45%	16%	4%
SB	NB	WB	EB	NB	SB	SB	NB	SB	NB	EB	WB
91	92	19	20	58	59	97	98	89	90	50	51

SILVER STAR	CRESCENT **	CITY OF NEW ORLEANS	SILVER METEOR	PALMETTO *	CARDINAL

* Due to Newark Penn and New York Penn arrivals between 11 p.m. and midnight
** Crescent: 2022 schedule update changed nighttime service

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Southeast Long-Distance Service and Performance
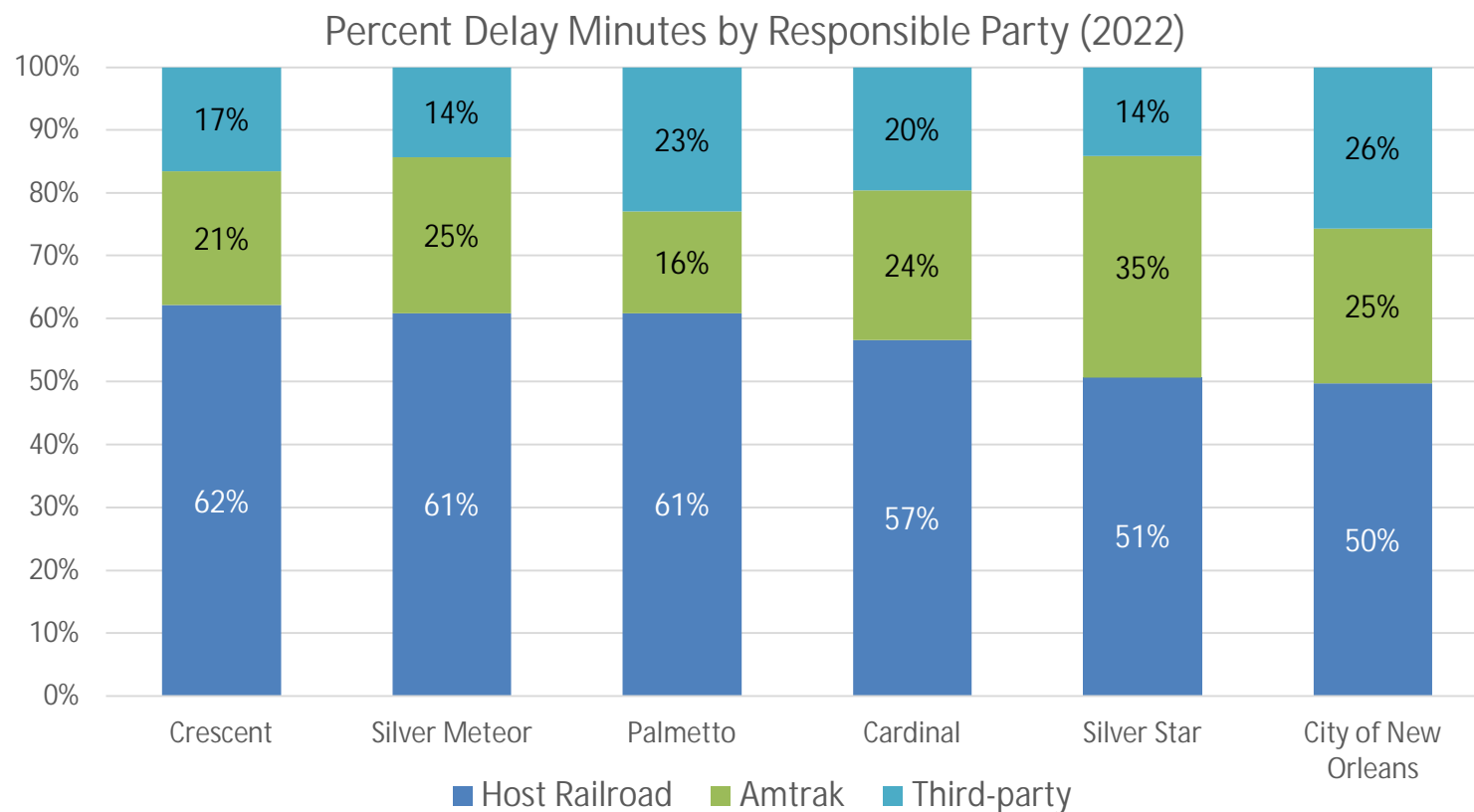
Customer On-Time Performance

- On-time is defined as arriving at a destination station in the Southeast Region within 15 minutes of the scheduled arrival time
- 36% of Long-Distance customers in the Southeast Region arrive on-time

Customer On-Time Performance (2022)
Percent of Customers Arriving On-Time by Direction

Route	Northbound/Eastbound	Southbound/Westbound
City of New Orleans	60%	52%
Palmetto	43%	52%
Crescent	42%	52%
Cardinal	39%	45%
Silver Meteor	40%	41%
Silver Star	33%	16%

■ Northbound/Eastbound ■ Southbound/Westbound

Source: Amtrak, Fiscal Year 2022. Performance data by route and station.
Note: Does not include Auto Train.

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Southeast Long-Distance Service and Performance

Amtrak-Reported Delay Minutes: Reason for Delay

- Three types of delay minute responsibility: Amtrak-responsible, Host Railroad-responsible, and third-party

- Freight train interference is the top source of Host Railroad delays, accounting for 49% of Host Railroad delay minutes for routes serving the Southeast Region

Percent Delay Minutes by Responsible Party (2022)

Route	Host Railroad	Amtrak	Third-party
Crescent	62%	21%	17%
Silver Meteor	61%	25%	14%
Palmetto	61%	16%	23%
Cardinal	57%	24%	20%
Silver Star	51%	35%	14%
City of New Orleans	50%	25%	26%

■ Host Railroad   ■ Amtrak   ■ Third-party

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Current Long-Distance Network & Routes – Southeast Summary

- Trips originating in the Southeast Region are shorter than for Long-Distance service overall
  - 62% of Coach and Business Class trips are less than 400 miles on routes serving the Southeast Region compared to 61% for Long-Distance overall
  - 24% of Sleeper Class trips are over 1,000 miles on routes serving the Southeast Region compared to 41% for Long-Distance overall

- Miami, served by the *Silver Meteor* and the *Silver Star*, has the longest distance trips on average

- 36% of Long-Distance customers in the Southeast Region arrive on-time (within 15 minutes of schedule)

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BASELINE AND MARKET CONDITIONS – SOUTHEAST

Overview of Sources and Methods

- Trip Flow Data:
  - Total trips for all modes between MSAs from Federal Highway Administration's (FHWA) Next-Gen National Household Travel Survey National Passenger origin-destination (O-D) data (2020) (https://nhts.ornl.gov/od/)
  - Represents annual trips by the U.S. population throughout all of 2020
  - 2020 data impacted by COVID-19 conditions
  - Provides insights into travel demand between cities

- Amtrak O-D Pairs Data:
  - Volume of trips on Long-Distance passenger trains from Amtrak (2019) between station pairs
  - Provides insights into Long-Distance passenger train travel between stations

- Trips analyzed were at least 100 miles in length

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Definitions

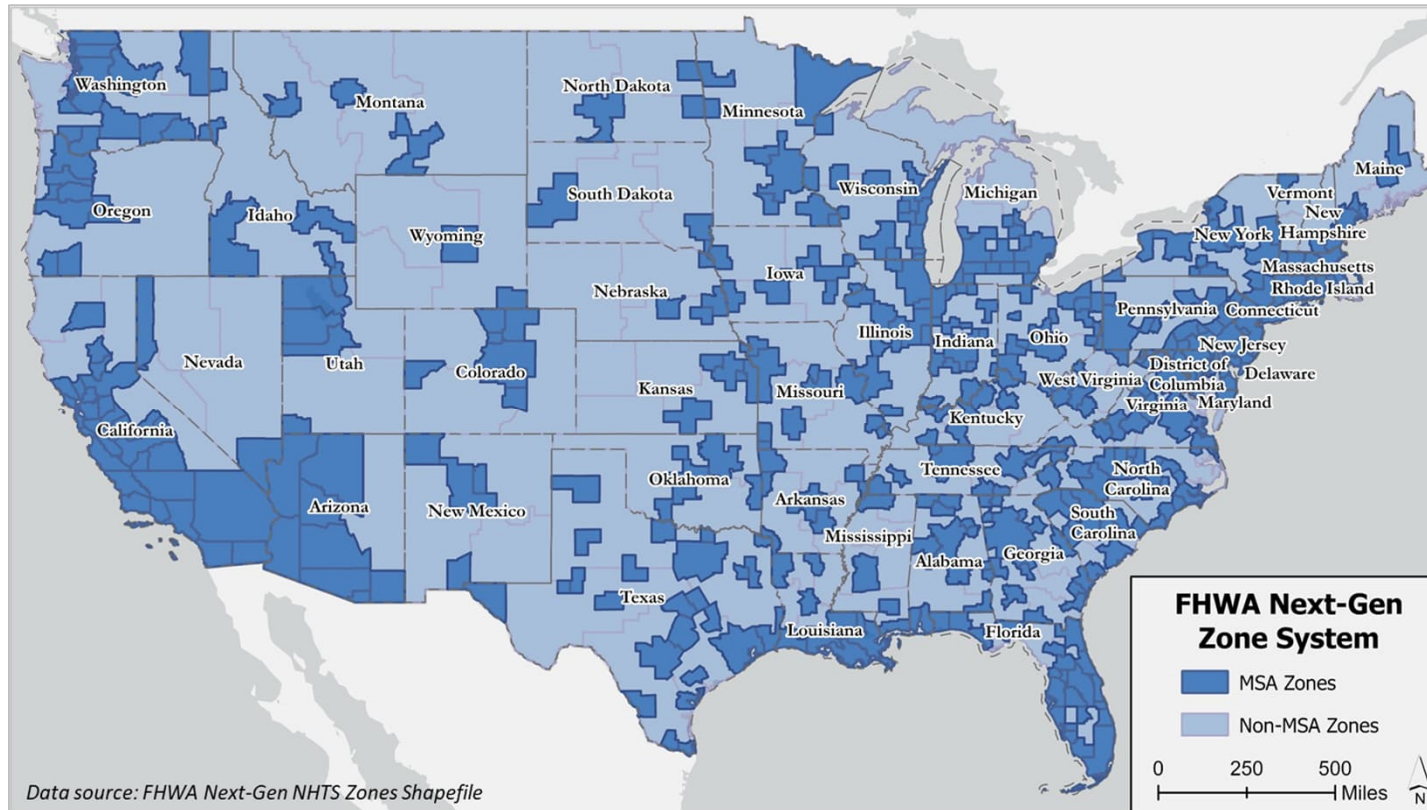| Market	• Trip making to or from a community (for example, a city or a larger geography such as an entire region)
MSA	• Metropolitan Statistical Area: A standardized county or equivalent-based area having at least one urbanized area of 50,000 or more population
Smaller MSA	• MSA with a population less than 250,000 residents
Small Community	• Community served by an Amtrak station located outside an MSA

FHWA Next-Gen Zones

Data source: FHWA Next-Gen NHTS Zones Shapefile

FHWA Next-Gen Zone System
- MSA Zones
- Non-MSA Zones

0   250   500 Miles

- FHWA Next-Gen data represent trips between and within zones
- About 600 zones nationwide
- About 450 zones are either an MSA or part of an MSA
- Areas outside of MSAs are grouped into non-MSA zones. Non-MSA zones often are large in terms of land area

Southeast Region – Market Opportunities

- The next few slides are based on FHWA Next-Gen data for all trips and all travel modes

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Southeast Region – Market Opportunities

Top 25 Trip Flows

- Trip flows between MSAs with one trip end in an MSA in the Southeast Region

- Based on Next-Gen and showing total trips over 100 miles across all modes

- Trip flow colors indicate availability of Amtrak service between MSAs
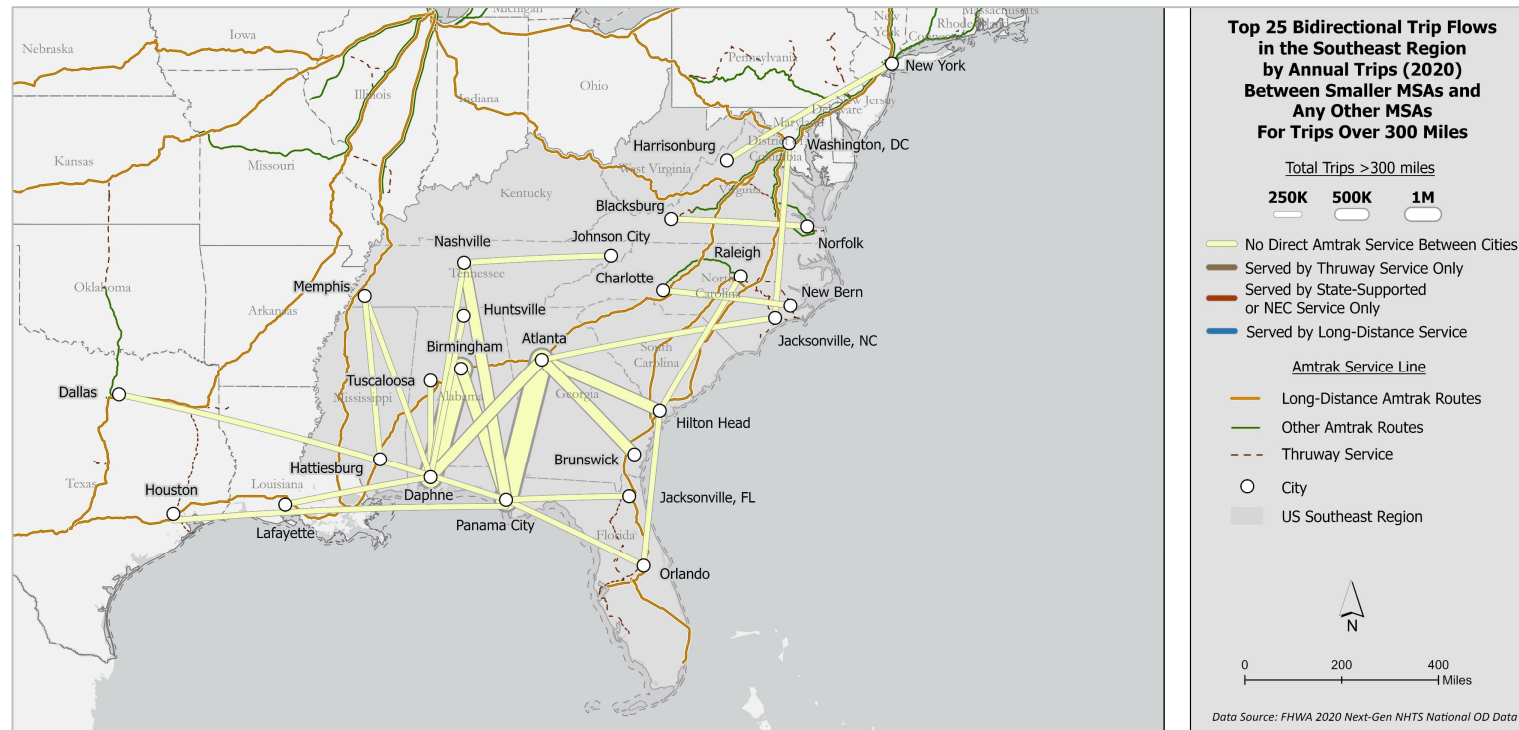

Top 25 Flows in the Southeast Region by Annual Trips (2020) between MSAs

Total Trips >100 miles

5M   10M   15M

No Direct Amtrak Service Between Cities
Served by Thruway Service Only
Served by State-Supported or NEC Service Only
Served by Long-Distance Service

Amtrak Service Line

Long-Distance Amtrak Routes
Other Amtrak Routes
Thruway Service
City
US Southeast Region

N

0   250   500 Miles

Data Source: FHWA 2020 Next-Gen NHTS National OD Data

May not show all Thruway Bus Services

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Southeast Region – Market Opportunities for Smaller MSAs

Top 25 Trip Flows Connecting Smaller MSAs

- Trip flows between MSAs with one trip end in a smaller MSA in the Southeast Region

- Total trips over <u>300</u> miles across all modes

- Top flows are between MSAs not directly served by Amtrak service

- Significant travel to coastal communities, particularly Panama City, FL and beach towns in Alabama

May not show all Thruway Bus Services

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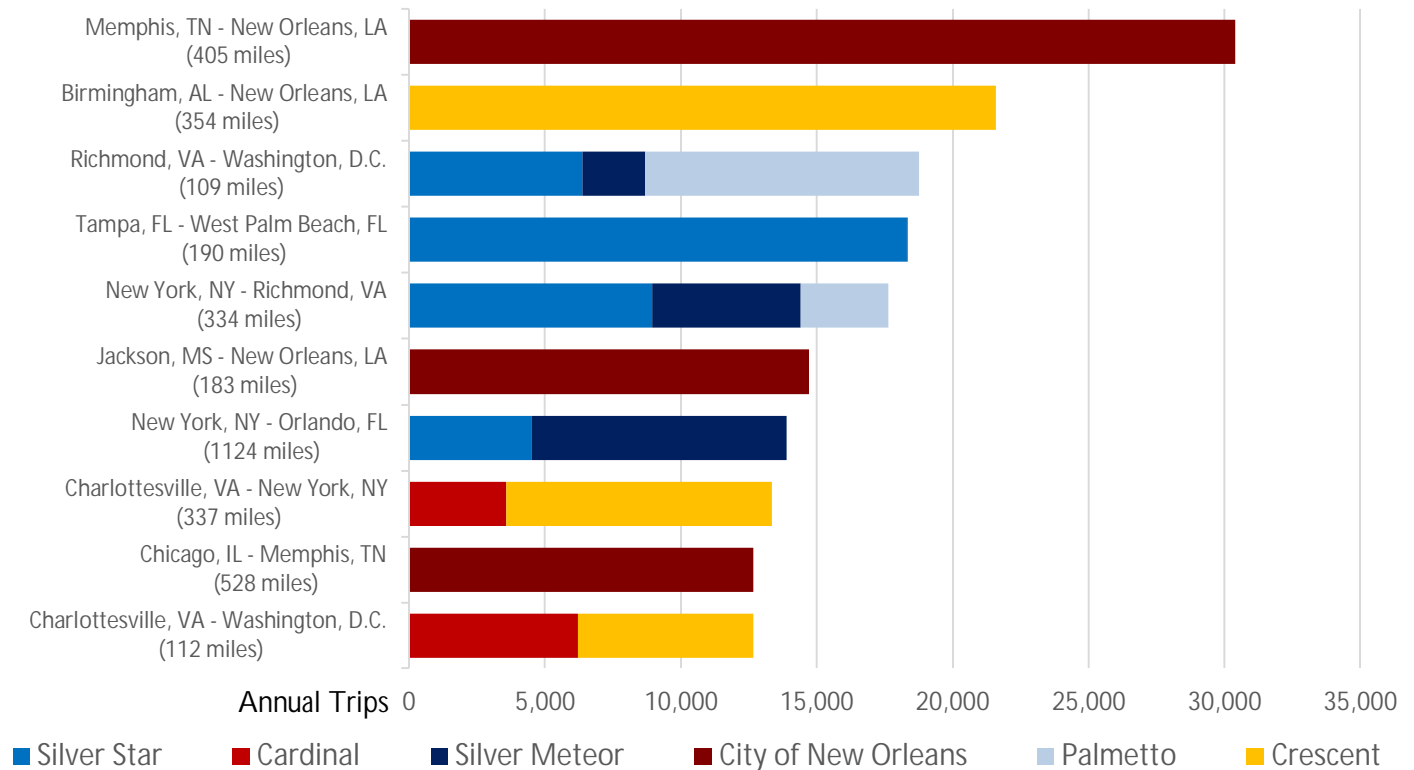SERVICE STUDY

Southeast Region – Current Amtrak O-D Pairs

- The next few slides are based on Amtrak FY 2019 origin-destination (O-D) ridership data for rail trips over 100 miles in length on Long-Distance passenger trains
- The slides focus on top station pairs overall and on trips made between small communities

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Southeast Region – Current Amtrak O-D Pairs

Amtrak Ridership: Top 10 Station Pairs

- Nine of the top 10 pairs leave the Southeast Region

- Six of the top 10 station pairs in the Southeast Region include New Orleans, Memphis, and Richmond

- New York – Orlando and Chicago – Memphis are both overnight trips

Top 10 Long-Distance Station Pairs by Volume of Annual Trips (2019)

Categories (top to bottom):
- Memphis, TN - New Orleans, LA (405 miles)
- Birmingham, AL - New Orleans, LA (354 miles)
- Richmond, VA - Washington, D.C. (109 miles)
- Tampa, FL - West Palm Beach, FL (190 miles)
- New York, NY - Richmond, VA (334 miles)
- Jackson, MS - New Orleans, LA (183 miles)
- New York, NY - Orlando, FL (1124 miles)
- Charlottesville, VA - New York, NY (337 miles)
- Chicago, IL - Memphis, TN (528 miles)
- Charlottesville, VA - Washington, D.C. (112 miles)

Annual Trips: 0 – 5,000 – 10,000 – 15,000 – 20,000 – 25,000 – 30,000 – 35,000

Legend: Silver Star | Cardinal | Silver Meteor | City of New Orleans | Palmetto | Crescent
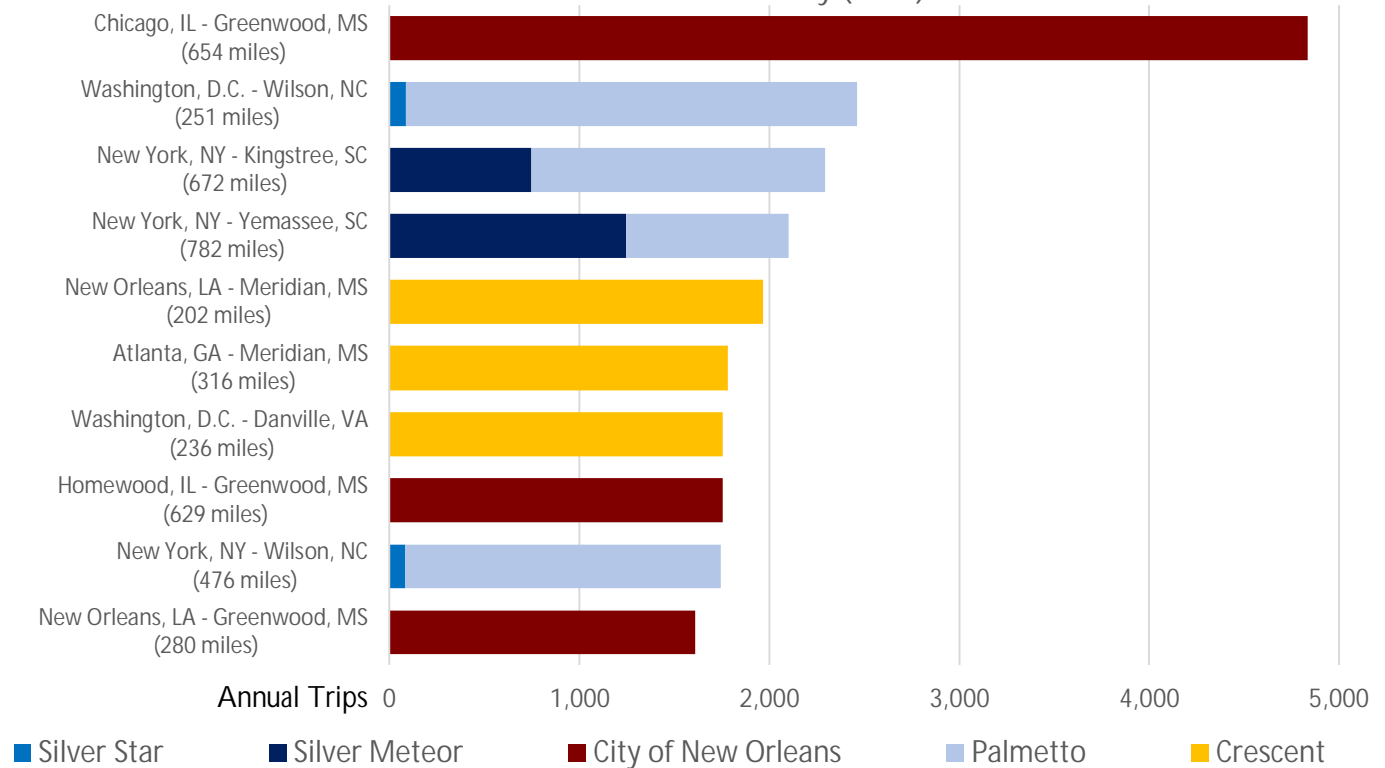
Southeast Region – Current Amtrak O-D Pairs

Amtrak Ridership: Top 10 Station Pairs Serving Small Communities

- Nine of the top 10 pairs leave the Southeast Region

- The top small communities are Greenwood, MS, Wilson, NC, and Meridian, MS, included in 7 of the top 10 pairs

- Chicago - Greenwood and Homewood - Greenwood are overnight trips on *City of New Orleans*

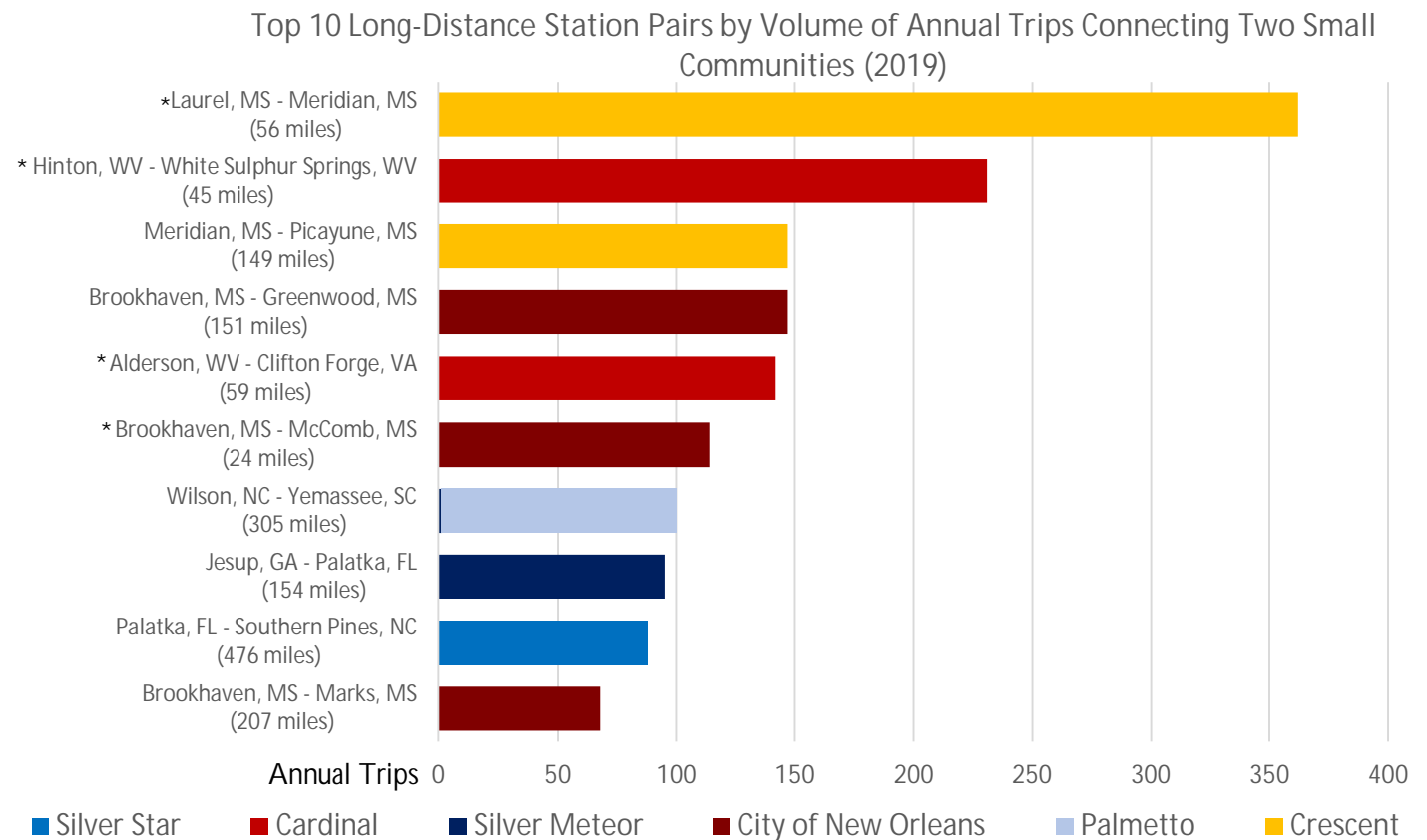- New York - Yemassee is an overnight trip on the *Silver Meteor*, not the *Palmetto*

Top 10 Long-Distance Station Pairs by Volume of Annual Trips Including a Small Community (2019)

Chart showing Annual Trips for station pairs:
- Chicago, IL - Greenwood, MS (654 miles) — City of New Orleans
- Washington, D.C. - Wilson, NC (251 miles) — Silver Star / Palmetto
- New York, NY - Kingstree, SC (672 miles) — Silver Meteor / Palmetto
- New York, NY - Yemassee, SC (782 miles) — Silver Meteor / Palmetto
- New Orleans, LA - Meridian, MS (202 miles) — Crescent
- Atlanta, GA - Meridian, MS (316 miles) — Crescent
- Washington, D.C. - Danville, VA (236 miles) — Crescent
- Homewood, IL - Greenwood, MS (629 miles) — City of New Orleans
- New York, NY - Wilson, NC (476 miles) — Silver Star / Palmetto
- New Orleans, LA - Greenwood, MS (280 miles) — City of New Orleans

Annual Trips   0   1,000   2,000   3,000   4,000   5,000

Legend: ■ Silver Star ■ Silver Meteor ■ City of New Orleans ■ Palmetto ■ Crescent

Southeast Region – Current Amtrak O-D Pairs

Amtrak Ridership: Top 10 Station Pairs Connecting Small Communities

- The top 10 pairs of small communities are all within the Southeast Region

- The largest small community markets are Meridian, MS and Brookhaven, MS, included in 5 of the top 10 pairs

- These are all daytime trips

Top 10 Long-Distance Station Pairs by Volume of Annual Trips Connecting Two Small Communities (2019)

Legend: Silver Star | Cardinal | Silver Meteor | City of New Orleans | Palmetto | Crescent

Represents station pairs less than 100 miles apart

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Southeast Market Conditions Summary

- Top travel flows in the Southeast Region are primarily intra-regional with many flows between cities in Florida
  - Several of the trip flows are currently served by Long-Distance or state-supported services

- Top travel flows connecting smaller MSAs are between communities along the coasts of Alabama, the Florida Panhandle, and the Carolinas

- Nine of the top 10 rail station pairs include one of the following stations outside the Southeast Region: New York, Chicago, New Orleans, and Washington, DC

- Most of the top rail station pairs with a station in a small community are served by the *City of New Orleans*, *Crescent*, and *Palmetto*

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