Welcome

PALMETTO FREIGHT SERIES

- Mute your microphone unless speaking during a Q&A session
- Use the "Raise Your Hand" or chat box feature to ask questions
- Announce your name whenever you speak
- If you get disconnected, please reference the log-in instructions to reconnect audio or visual
- If you are dialing-in or had the meeting dial-out to you, do not answer any calls and put this call "on-hold" (this will disrupt our meeting)

APPALACHIAN COUNCIL OF GOVERNMENTS

BCDCOG

Freight Data Analysis

Palmetto Freight Series: Lunch & Learn

September 10, 2020

Introduction to Speakers

PALMETTO FREIGHT SERIES

Eric McClellan
Columbia, SC

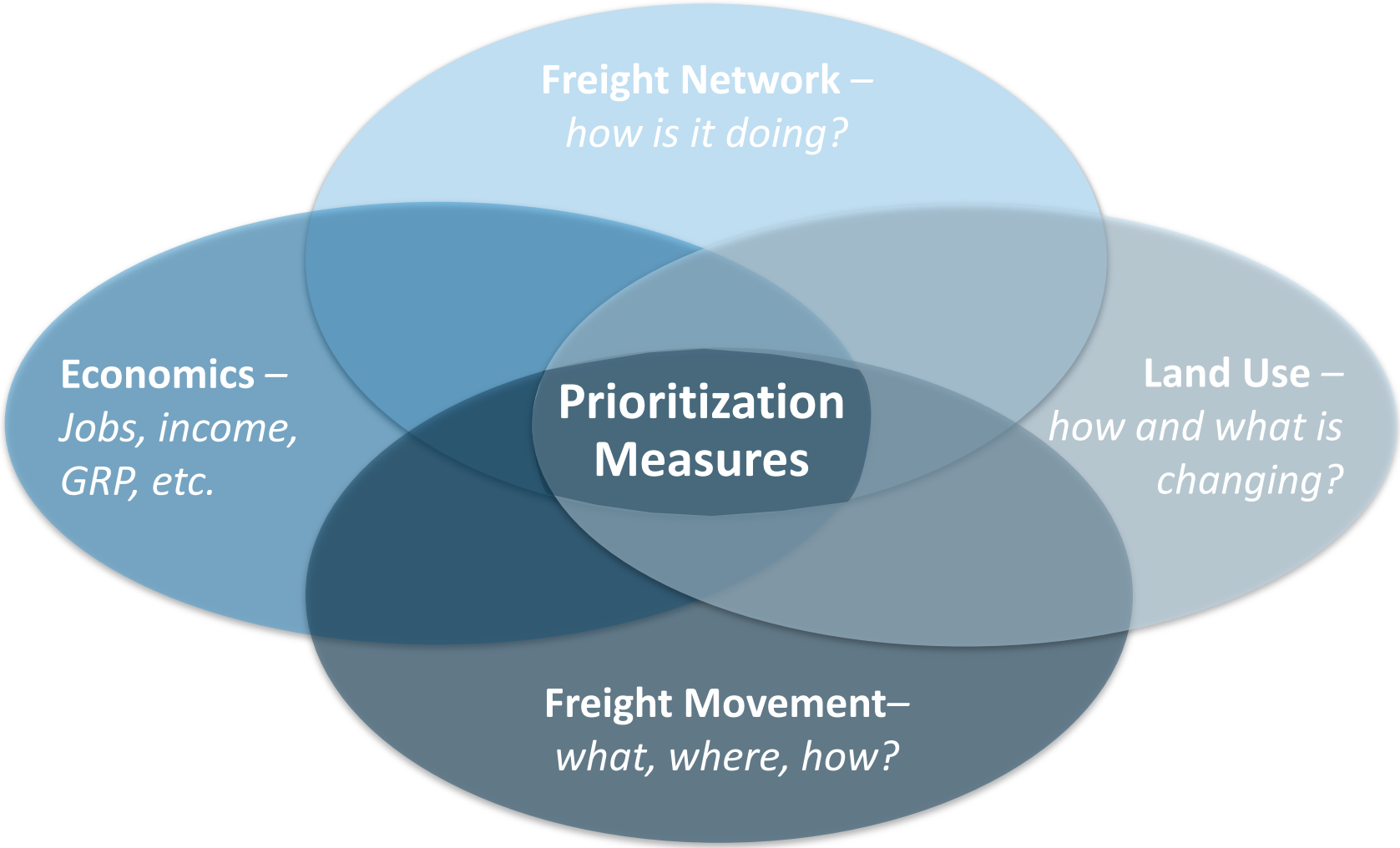
Evan Bigos
Orlando, FL

Polling Question

- What is freight?

Freight and Economics

Analysis Elements



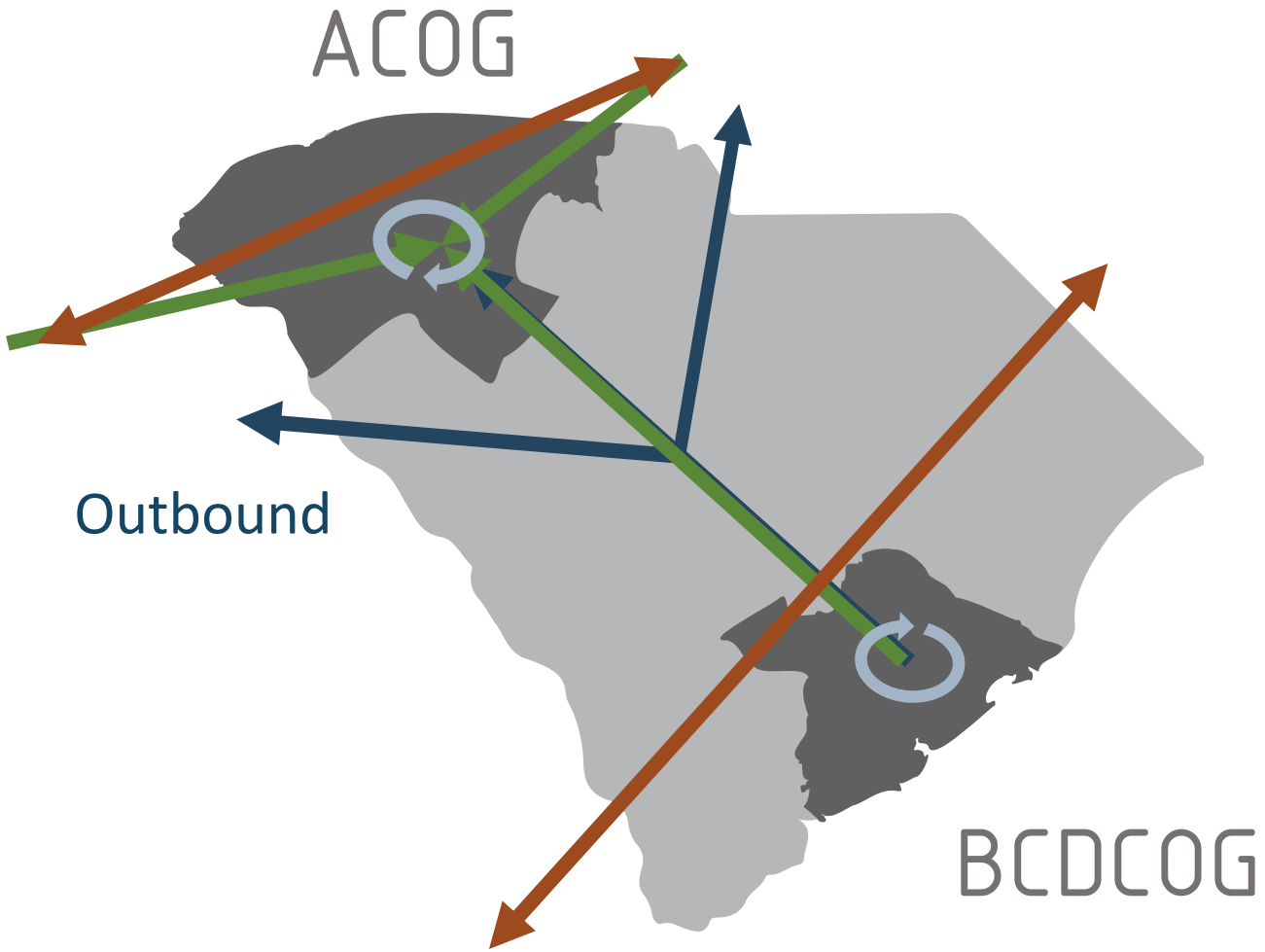
The Economy in Motion

- Economic impacts are normally the highlight
  - But, that's next meeting
- Freight data, however, drives the impacts
  - Typically comprise two *Activities*
    - *Freight transport* – trucking, railroads, port
    - ***Users* – shippers and receivers**
- This slide-deck explains freight
  - Data, Dimensions, and Sources

Freight Dimensions & Sources

- Dimensions
  - *Geography* – ACOG and BCDCOG
  - *Direction* – inbound, outbound, intra, through
  - *Volume* – tons, value, units
  - *Mode* – truck, rail, port, air
  - *Commodity* – 40 categories (750+ sub-groups)
- Sources:
  - *Transearch* – IHS Markit
  - *STB Waybill* Sample– Surface Transportation Board (AAR)
  - *FAF4* – FHWA Freight Analysis Framework
  - *USACE* – Waterborne Commerce Statistics
  - *Port of Charleston* – port data
  - *Airports* – GSP, CHS data

Geography and Direction



Freight Source Comparison

PALMETTO FREIGHT SERIES

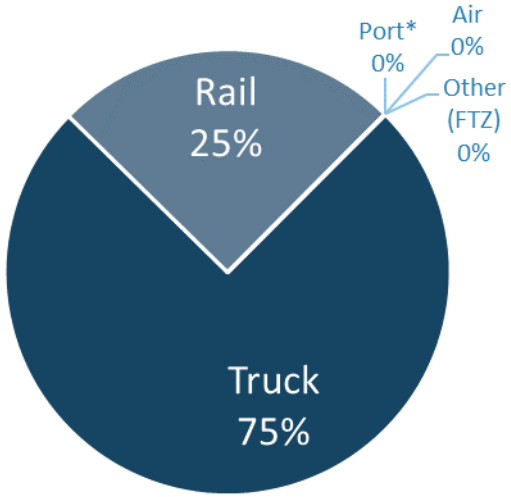
Dimension	Transearch	STB/Trans.	Transearch	USACE	POC	Transearch	Airports
Volume							
Weight	1 TON	1 TON	1 TON	1 TON	Partial	1 TON	1 TON
Value	$	$	$	na	na	$	na
Units			na			na	na
Detail							
Trade Geography	NAFTA	NAFTA	NAFTA	All	All	NAFTA	All
Direction	In, Out, Intra, Thru	In, Out, Intra, Thru	In, Out, Intra, Thru	In, Out	In, Out	In, Out	In, Out
Commodity Code	STCC	STCC	STCC	LPMS	na	STCC	na
Years Available	2016	2016	2016	Annual	Annual	2016	Annual
Forecast Year	2040	2040	2040	na	na	na	na

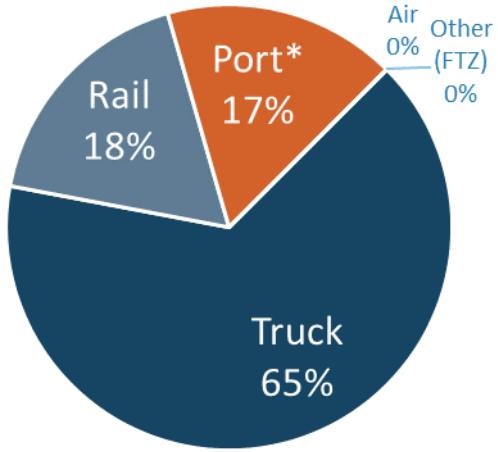
Freight Source Summary

- Source summary
  - None has all freight dimensions
  - TRANSEARCh – best trucking source, supplement rail with WAYBILL Sample
  - USACE – best waterborne tonnage source
    - explains high BCDCOG truck and rail volume
- Different TRANSEARCH database queries
  - **Today's Overview**
    - ***Modal summaries***
    - ***Network density*** – truck and rail ton maps
  - Next meeting
    - Commodity by direction – STCC2, outbound, inbound, etc.
    - Origin/destination pairings – trading partners

Transearch Ton Summary (2016)

Mode	ACOG	BCDCOG
Truck	103,741,513	89,073,711
Rail	34,768,257	23,907,740
Port (USACE)	na	23,015,503
Air	31,033	26,559
Other (FTZ)	39,488	20,233
Total	138,580,291	136,043,746

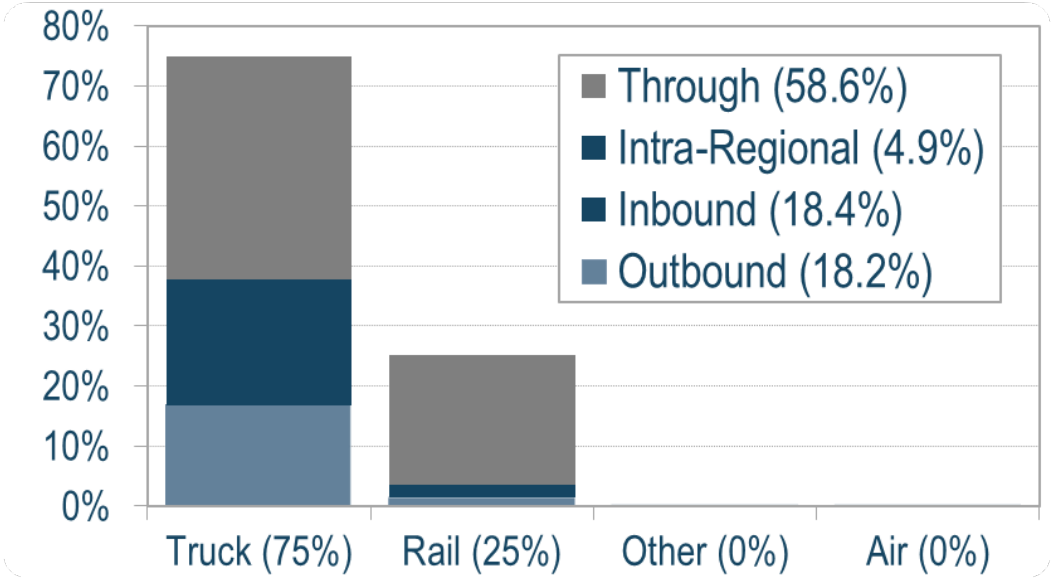




ACOG Tons by Direction and Mode (2016)

PALMETTO FREIGHT SERIES

Direction	Truck	Rail	Other	Air	Total
Outbound	23,277,834	1,939,905	840	15,753	25,234,333
Inbound	22,359,643	3,016,116	38,648	15,279	25,429,686
Intra-Regional	6,710,030	20,920	na	na	6,730,950
Through	51,394,006	29,791,316	na	na	81,185,322
Total	103,741,513	34,768,257	39,488	31,033	138,580,290

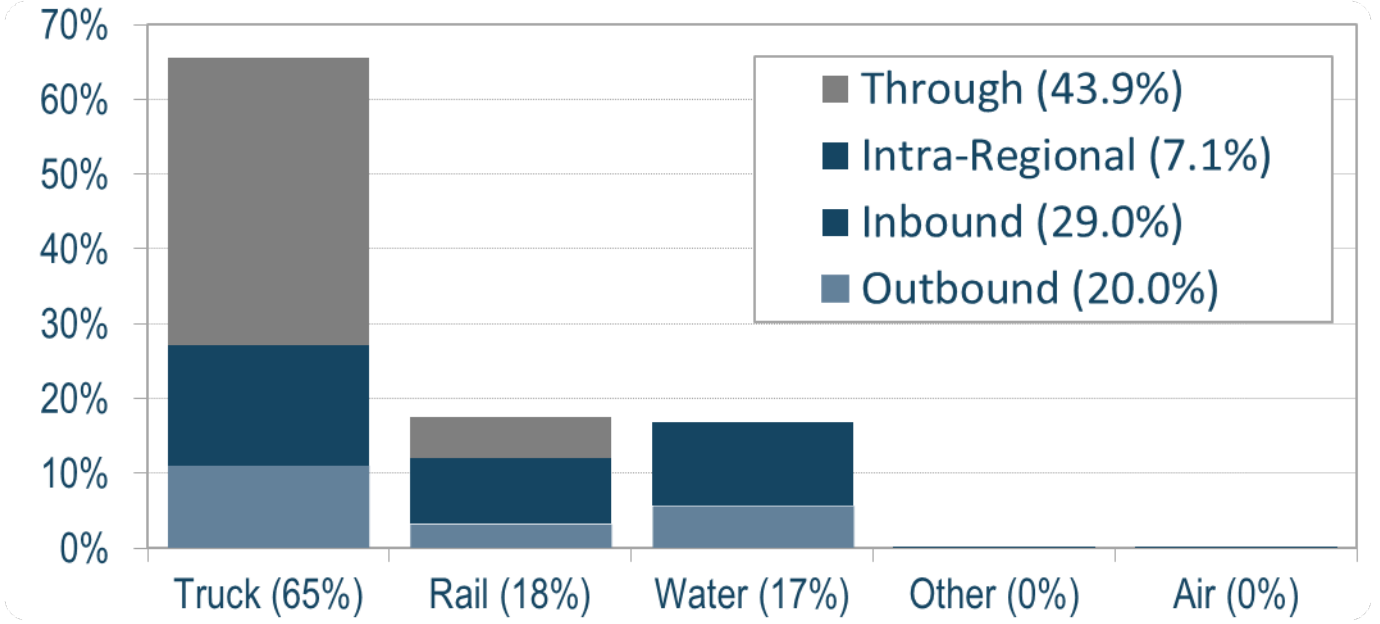


Source: Transearch, 2016

BCDCOG Tons by Direction and Mode (2016)

PALMETTO FREIGHT SERIES

Direction	Truck	Rail	Water*	Other	Air	Total
Outbound	15,013,564	4,432,478	7,809,379	1,036	9,391	27,265,848
Inbound	13,413,669	11,144,727	14,835,998	19,198	17,167	39,430,759
Intra-Regional	8,510,723	780,056	370,126	#N/A	#N/A	9,660,050
Through	52,135,754	7,550,479	#N/A	#N/A	#N/A	59,686,233
Total	89,073,711	23,907,740	23,015,503	20,233	26,559	136,043,746



Source: Transearch, 2016
*USACE, 2016

Polling Question

- Which SC interstate accommodates the most freight tonnage?
  - Road?
  - County?

Questions and Answers

Please type your questions in the questions box and our project team will answer them

If we do not get to all the questions, we'll prepare written responses and post them to the website with the meeting recording

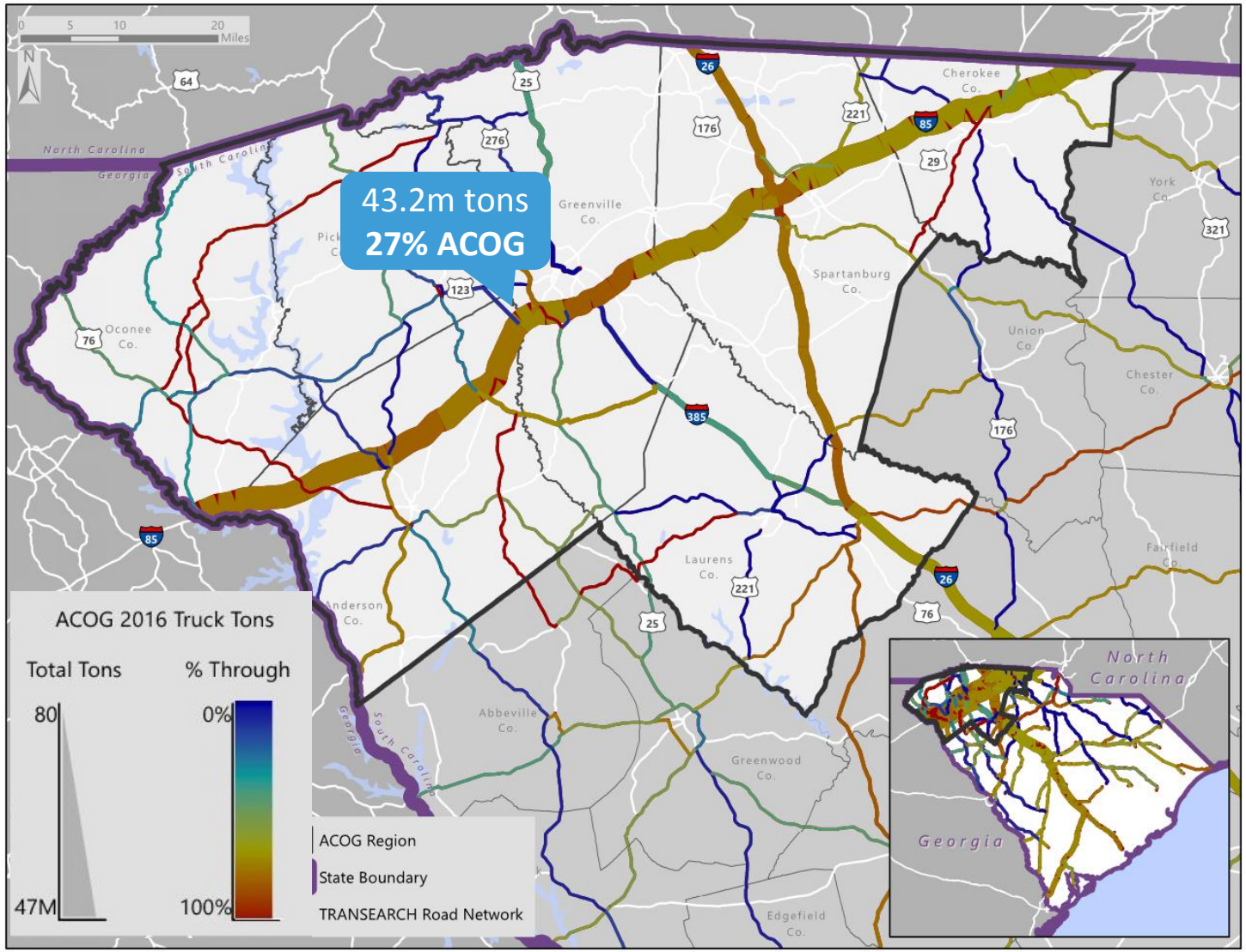
Freight Volume Maps

Truck Through Tons – ACOG (2016)

PALMETTO FREIGHT SERIES

Direction	Total Tons	Total *Per.*	I-85 Ton	I-85 *Per.*
Outbound	23.3	*22%*	5.7	*13%*
Inbound	22.4	*22%*	5.0	*12%*
Intra-Reg.	6.7	*6%*	0.9	*2%*
Through	51.4	*50%*	31.6	*73%*
Total	103.7	*100%*	43.2	*100%*

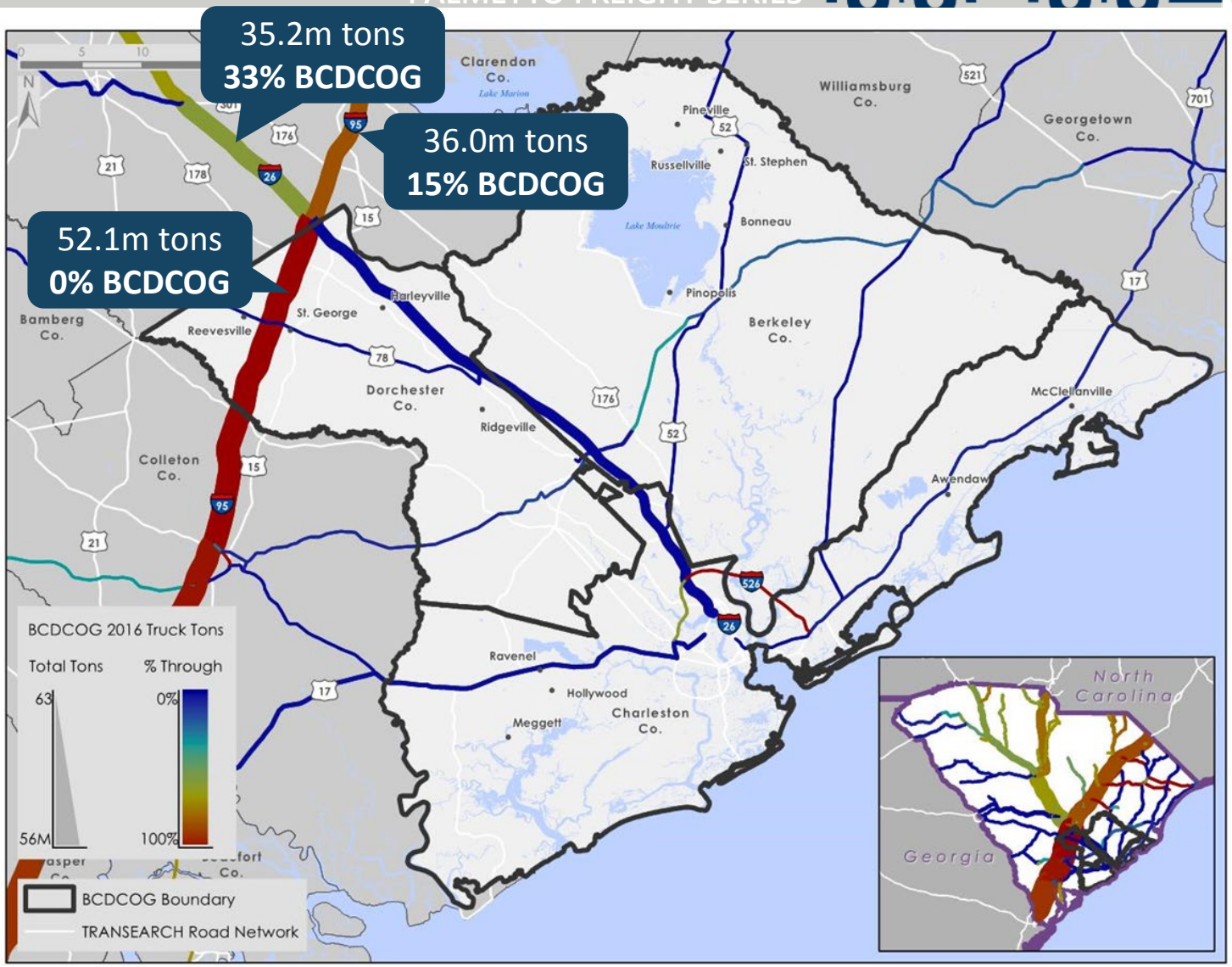
Source: Transearch, 2016



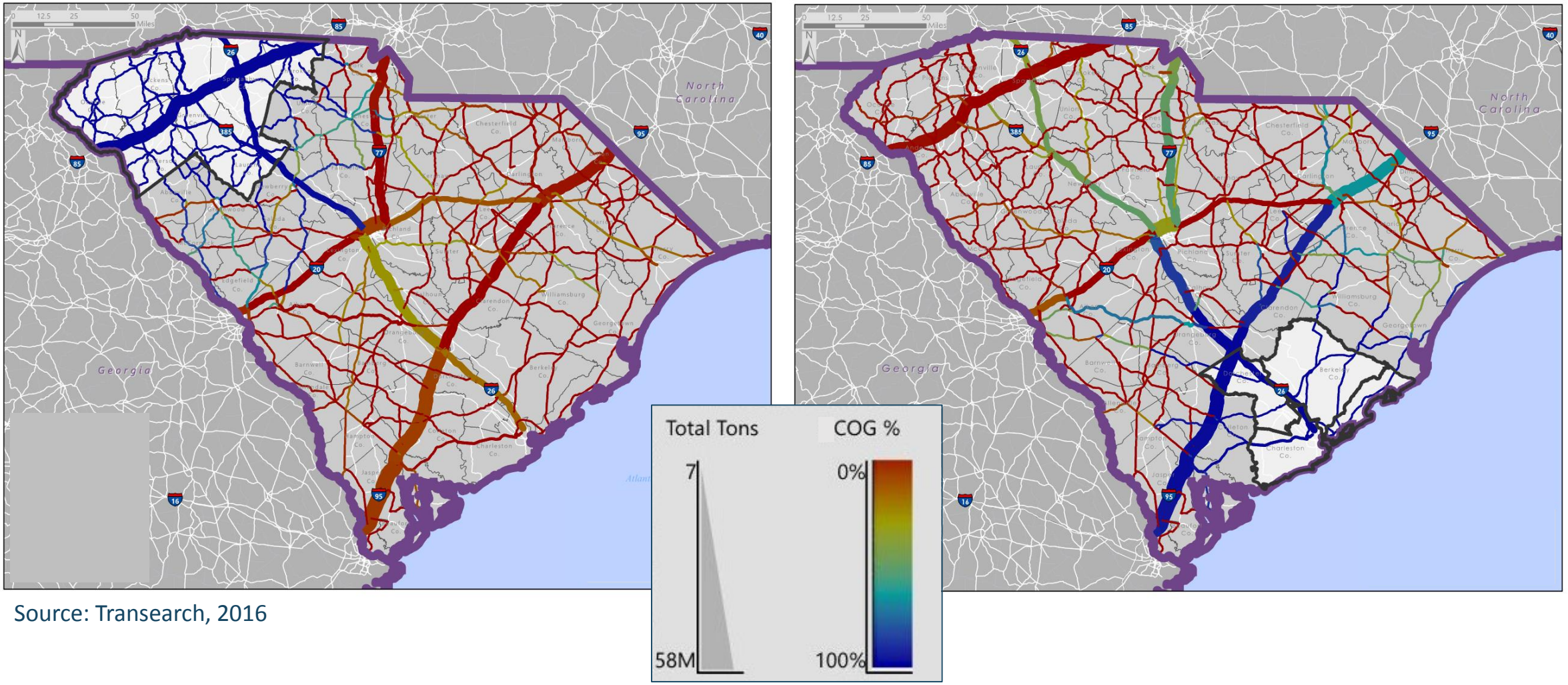
Truck Through Tons – BCDCOG (2016)

Direction	Total Tons	Total *Per.*	I-95 Ton	I-95 *Per.*
Outbound	15.0	*13%*	0.0	*0%*
Inbound	13.4	*12%*	0.0	*0%*
Intra-Reg.	8.5	*2%*	0.0	*0%*
Through	52.1	*73%*	52.1	*100%*
Total	89.1	*100%*	52.1	*100%*

Source: Transearch, 2016

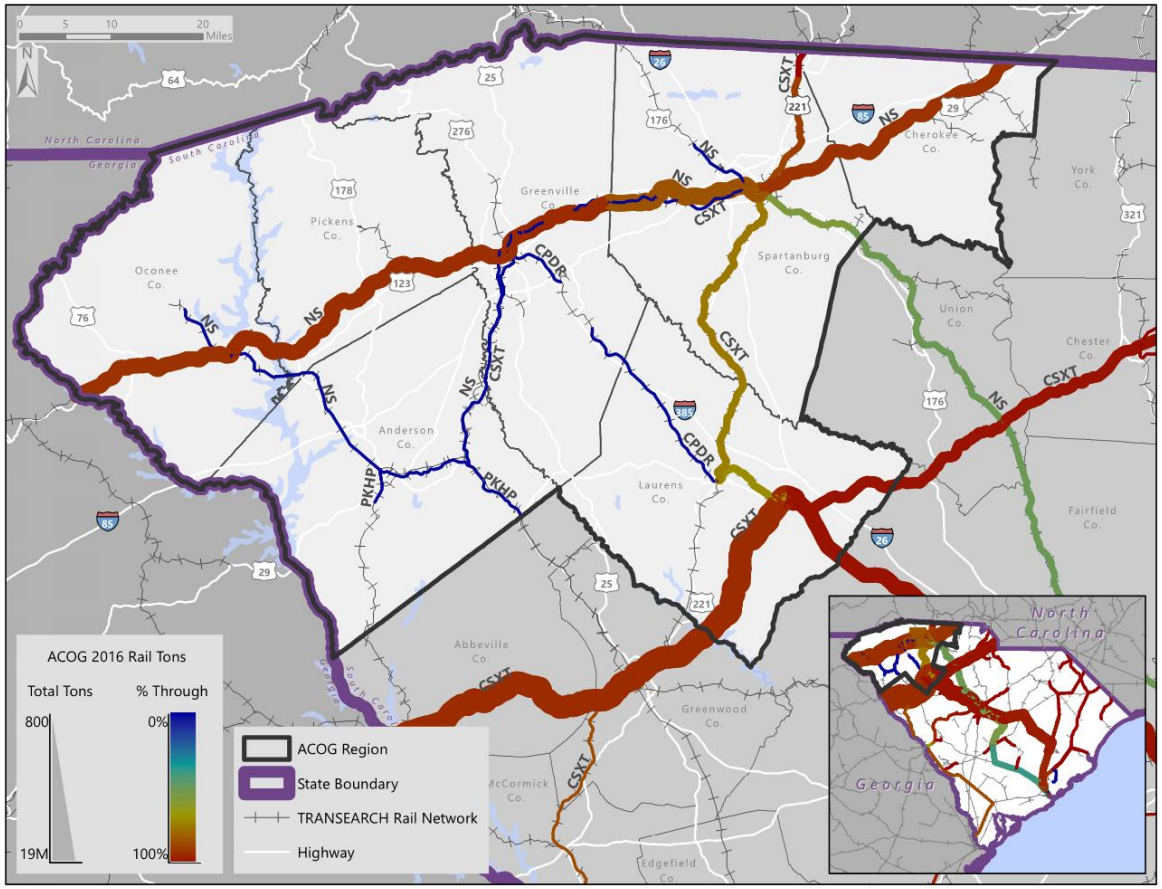


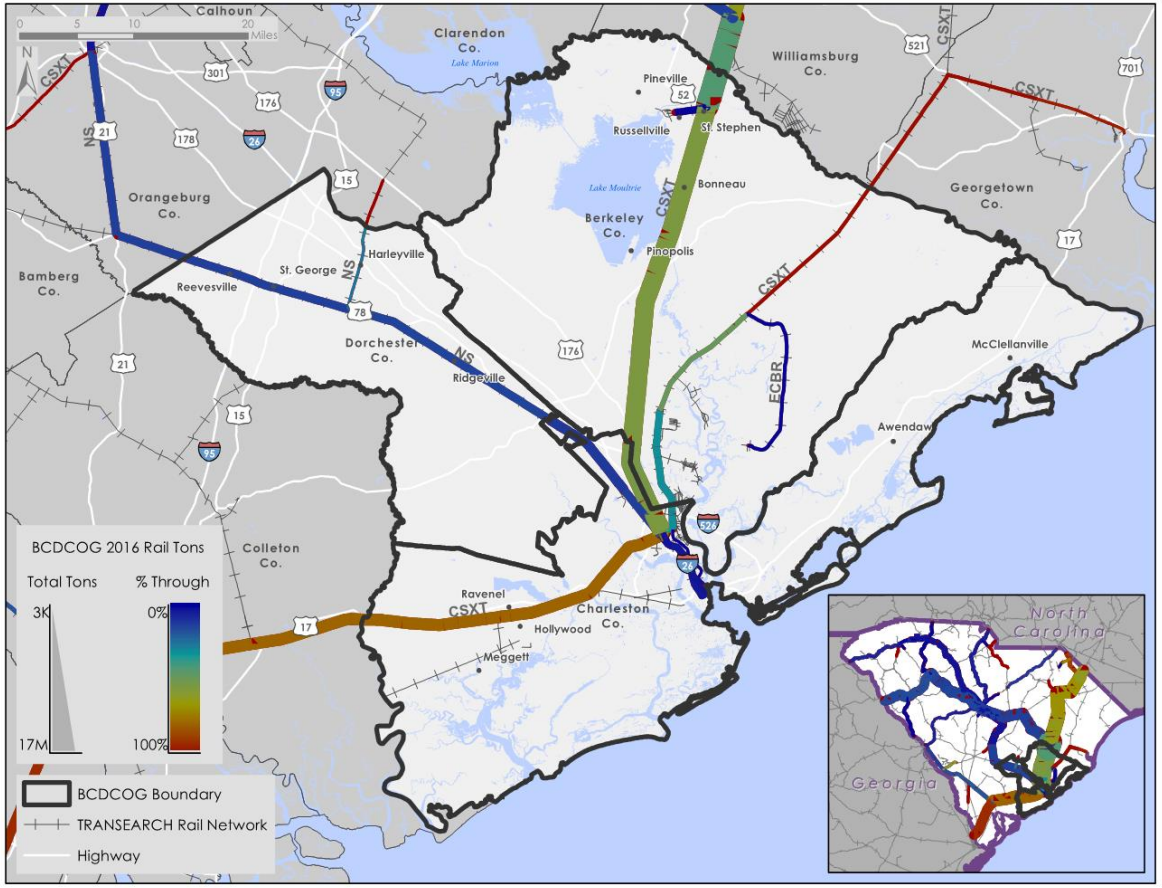
Statewide Truck Tons (2016)



Source: Transearch, 2016

COG Rail Tons (2016)





Source: Transearch, 2016

Summary

- Data is a multi-dimensional rabbit-hole
- No source is comprehensive
  - Transearch – best ***ground*** transport source
  - Supplement – with STB Waybill (rail) and USACE (port)
- COG freight flows
  - Differences volumes – mode, direction, and commodity
  - Must understand *Geography* and *Direction*

Next Steps

- Freight detail
  - Differences – volume, mode, and commodities
  - Inter-regional trade – who, what, how much
  - Uses – quantify the economy in motion
- Economic impacts
  - Explain – freight activities, types, and measures
  - Quantify – types, measures by mode and activity
    - Service – trucking, rail, etc.
    - User –based on commodity/direction
  - Compare
    - With state and local economies
    - With other transport impact studies

Polling Question

- How will I-26 freight volume increase by 2040?
  - 50%?
  - 85%?
  - 130%?

Questions and Answers

Please type your questions in the questions box and our project team will answer them

If we do not get to all the questions, we'll prepare written responses and post them to the website with the meeting recording

Other/Alternative Slides

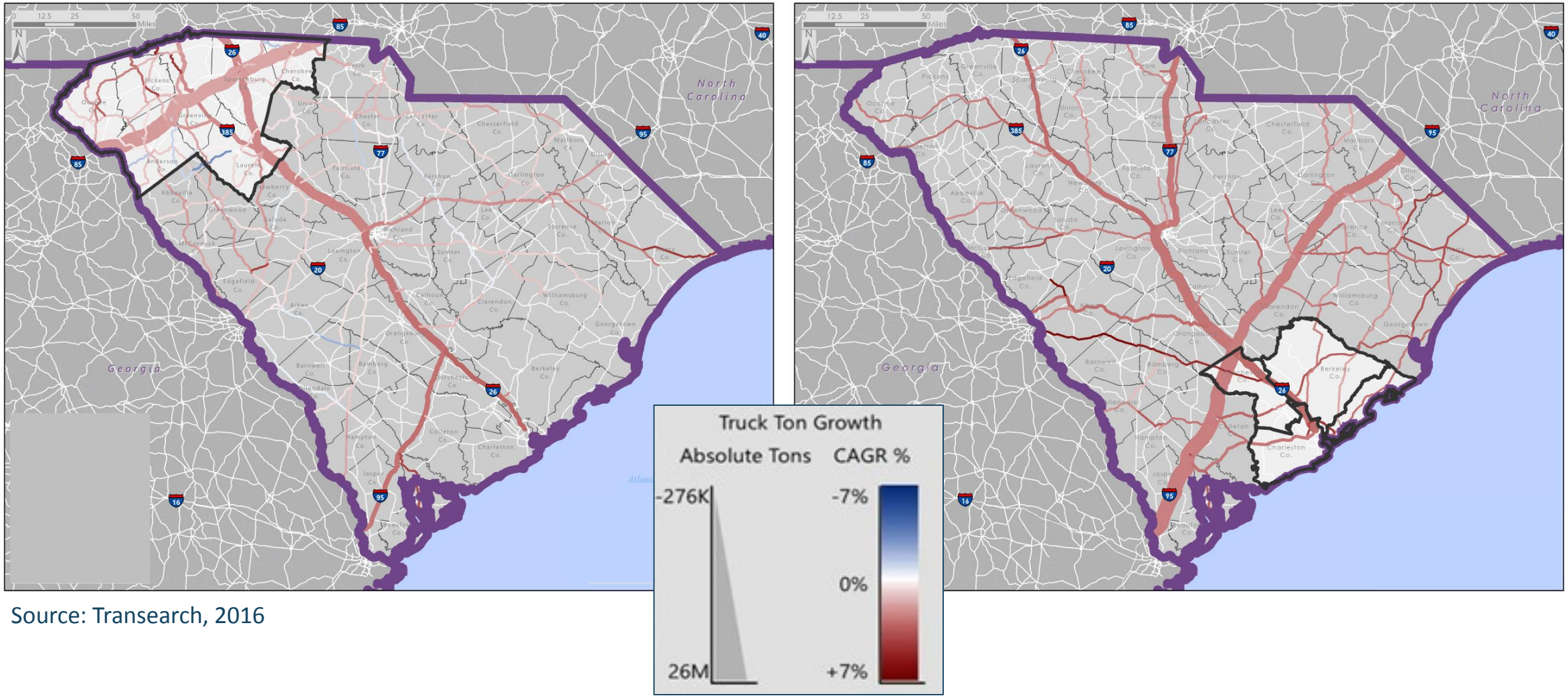
Project SOW

- Evaluate:
  - freight conditions,
  - trends,
  - challenges, and opportunities,
- Objectives
  - collect freight data
  - analyze freight performance measures
  - incorporate ITS and emerging tech.
  - guide freight investment
    - prioritization
    - implementation

30,000 Feet Perspective

- Major economic driver
  - BCDCOG
  - Upstate
  - Rest of SC
- Modal Transport
  - Much (~75%) is currently trucked
  - Inland Ports and NBIF
    - Market demands – quicker connectivity
    - Roadway congestion
- Support Commercial development around Port
  - Tax incentives
  - NIMBY
  - Truck parking facilities
  - Truck/rail warehouses

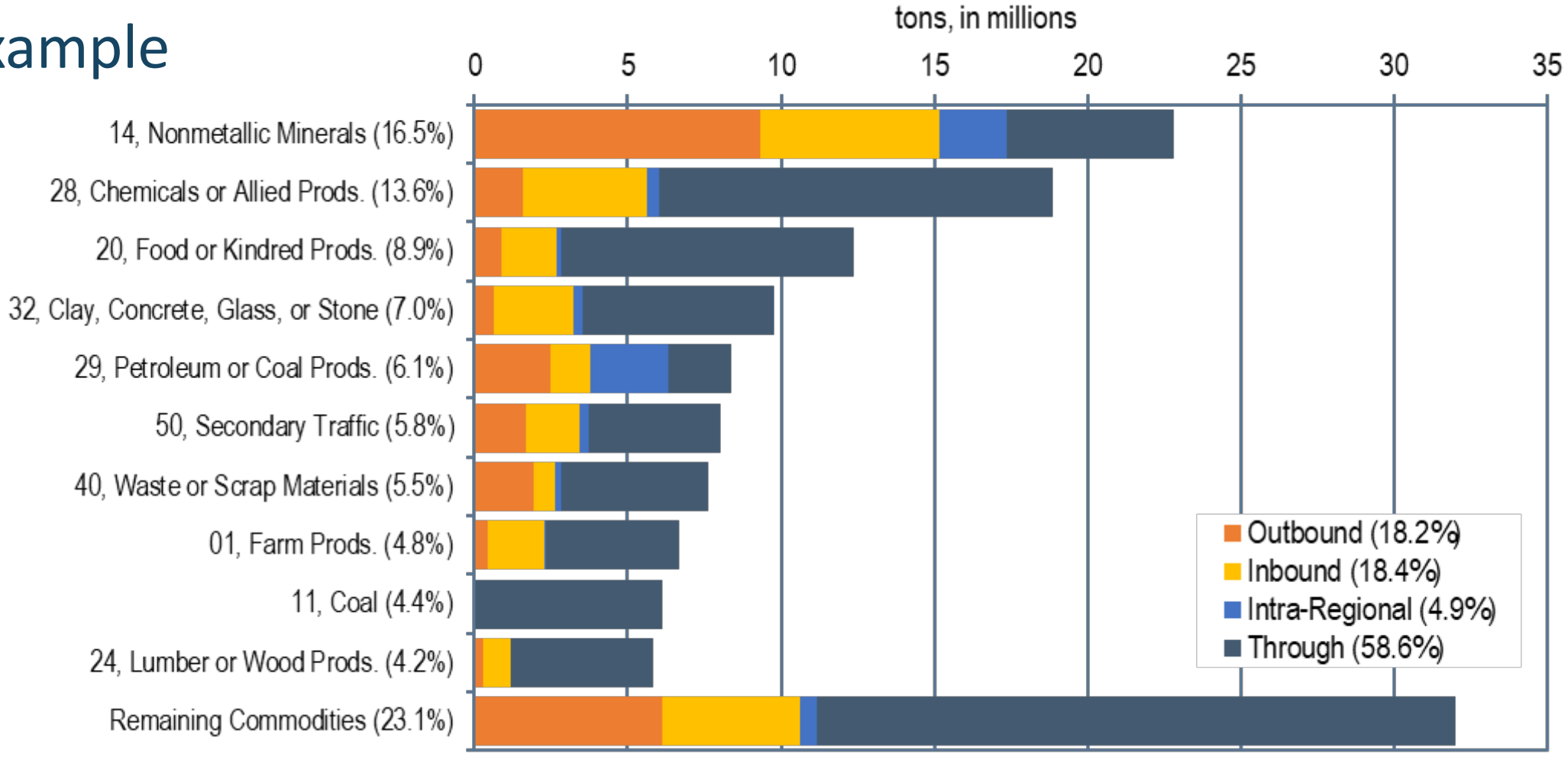
Truck Ton Growth (2016-2040)



Source: Transearch, 2016

ACOG Tons by Commodity & Direction (2016)

Example



Source: Transearch, 2016

Questions and Answers

Please type your questions in the questions box and our project team will answer them

If we do not get to all the questions, we'll prepare written responses and post them to the website with the meeting recording