

Kentucky Riverports, Highway & Rail Freight Analysis Study

- Jeremy Edgeworth, KYTC
- Chandler Duncan, Metro Analytics



Kentucky's Waterway Network





Kentucky's Public Riverports





Kentucky's Private Terminals





Kentucky's Rail Network

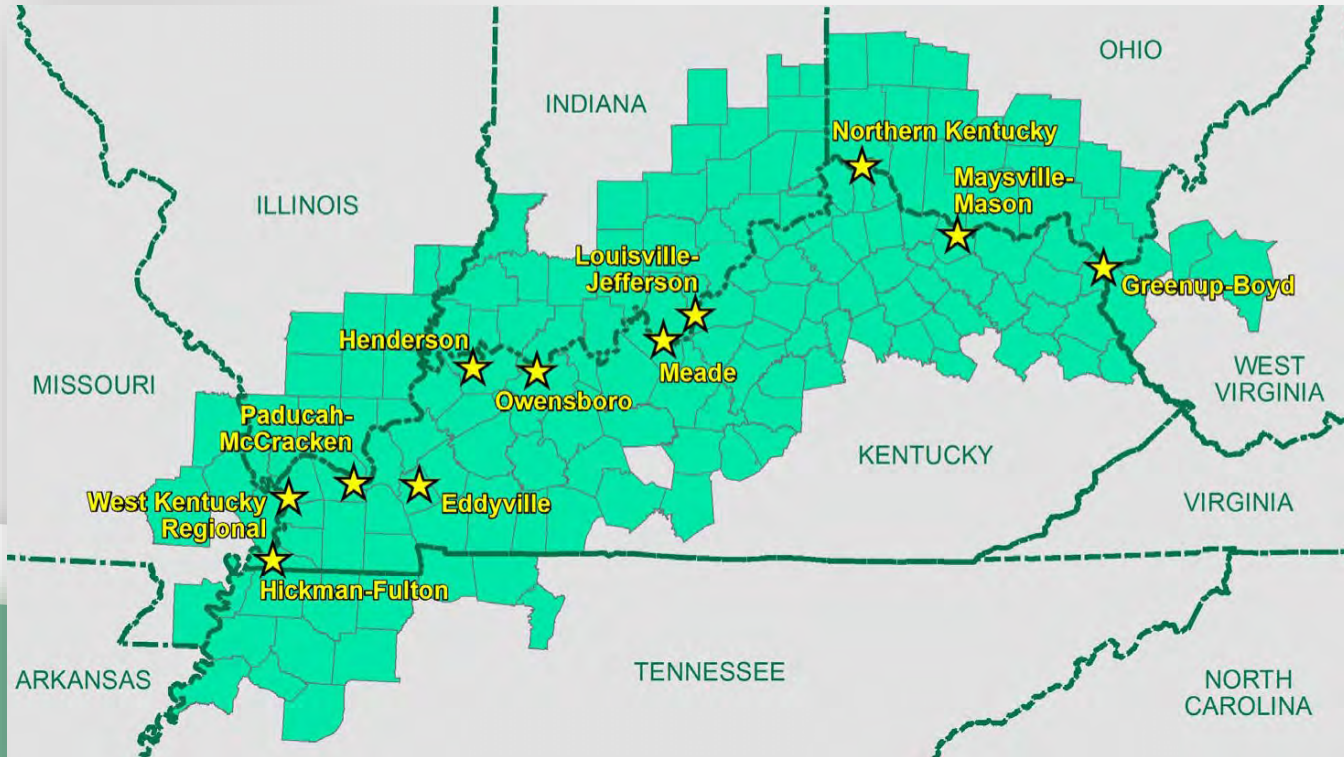




Kentucky's Road Network

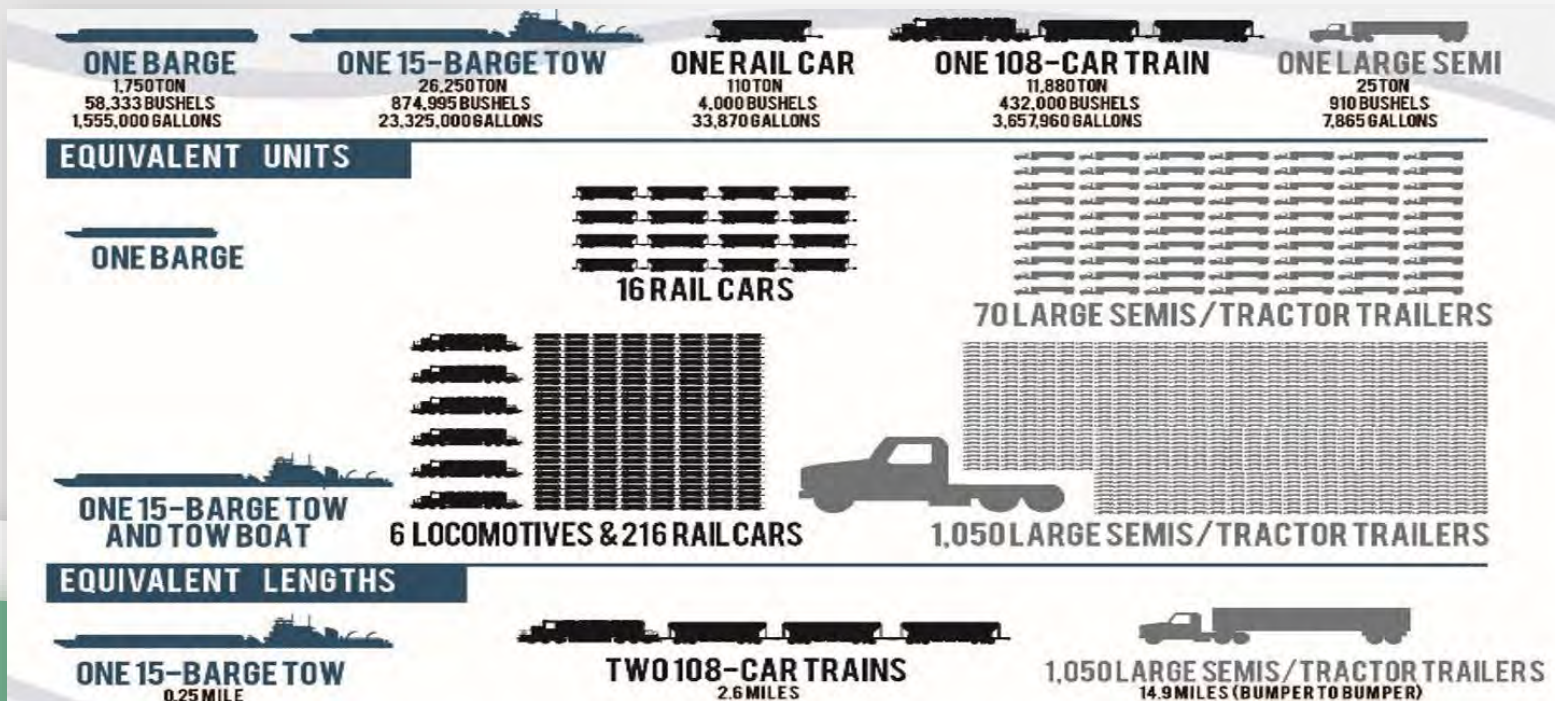


Riverport Hinterlands





Marine Transport Economies of Scale





KENTUCKY RIVERPORTS, HIGHWAY & RAIL FREIGHT STUDY



Kentucky Riverports, Highway & Rail Freight Analysis Study



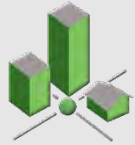
KENTUCKY RIVERPORTS,
HIGHWAY & RAIL FREIGHT
STUDY

BUILDING A
COLLABORATIVE
COMMERCE
NETWORK
ACROSS
KENTUCKY





KENTUCKY RIVERPORTS, HIGHWAY & RAIL FREIGHT STUDY



metro analytics



Engineering Planning

Groundbreaking by Design.



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COMMUNICATORS, STRATEGISTS, CREATIVES.



KENTUCKY RIVERPORTS, HIGHWAY & RAIL FREIGHT STUDY



- Nearly 30 Members
- Thought Leaders in Freight, Economics and Applied Research
- Upcoming National Publication:
 - Investment Management
 - Multi-Modal Resilience
 - MPO Planning
 - “Right-Sizing”
 - Visualization



Goals and Objectives

1. Guide Investment and Promotion of Ports
2. Enhance Efficient Utilization of Ports
3. Leverage Ports for Economic Development
4. Promotional/marketing materials for riverports
5. Quantify and understand Kentucky's Waterborne Freight Market
6. Data for statewide model on freight movements
7. Identify and Prioritize Funding Opportunities



KYTC Riverport Study Process





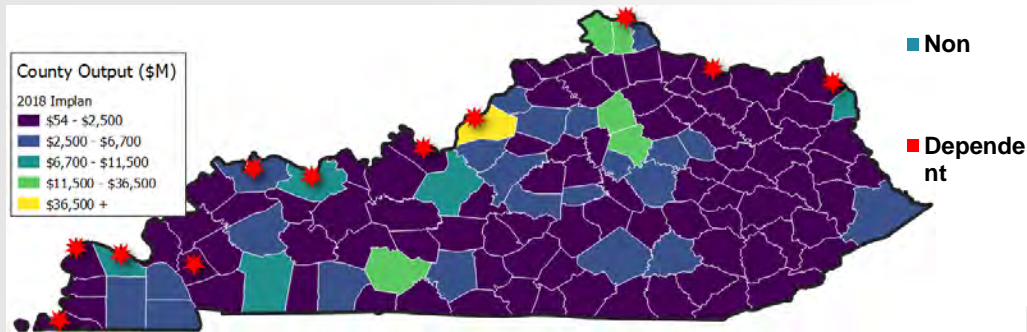
Task 1

Existing Role of Kentucky Riverports & Freight in the Economy

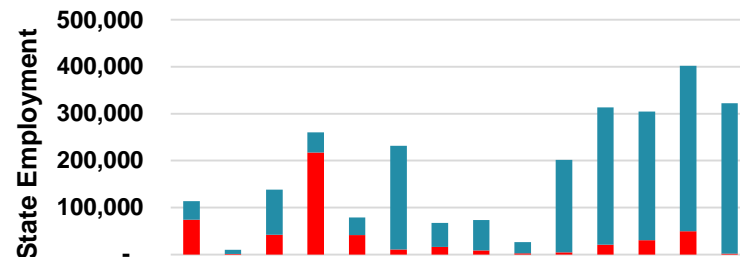
- **Riverports Connect Kentucky to the National and Global Economy**
- **Kentucky's Waterways Carry over 80 Million Tons of Freight Each year, worth over \$18 Billion**
- **Approximately 19% of Kentucky's Tonnage Moves by Water, but only 3% of the Value on Kentucky's Transportation System**
- **59% of New Jobs in Kentucky in 2020 were from new business locations, suggesting opportunities and new markets**
- **Growth in Manufacturing, Food & Beverage, Trade/logistics, Aluminum and other sectors show potential growth for waterborne commerce**
- **Kentucky's current \$500 Thousand Annual Port funding level lags behind other ports**

Understanding Markets:

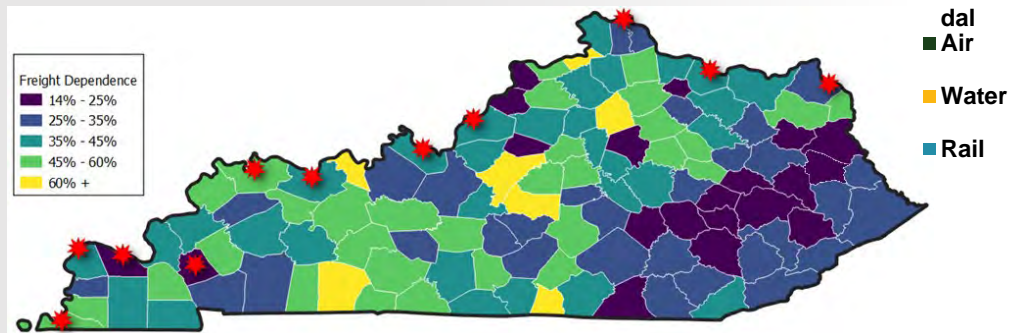
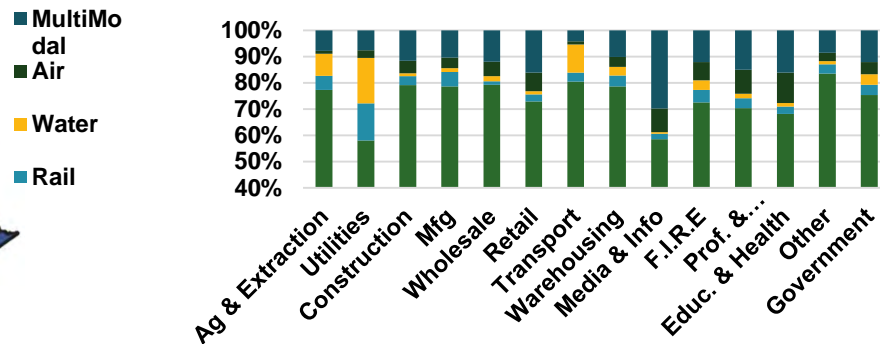
Why Riverports Matter: Jobs Depend on Freight Modes



Kentucky Freight Dependence
2018 Employment



Breakout of Industry Reliance by Mode





Task 2

Forecast Future Trade Volumes and Implications

- **The top 5 Commodities comprise 89% of today's Kentucky Riverport Market**
- **Petroleum and Crude (29%), Coal (19%), Aggregate (16%), Grains (15%) and Chemicals (10%)**
- **18% Freight Growth is expected by 2045 , but slight decline in waterways**
- **Growth in Oils, Plastics, Warehouse/Distribution and Grain, but offset by Reductions in Coal**
- **More than 50% of Kentucky's freight is in commodities that could be carried by water on some portion of its journey, however sourcing and logistic patterns determine actual utilization**

Understanding Markets:

Freight Scenarios by Mode: All Riverports

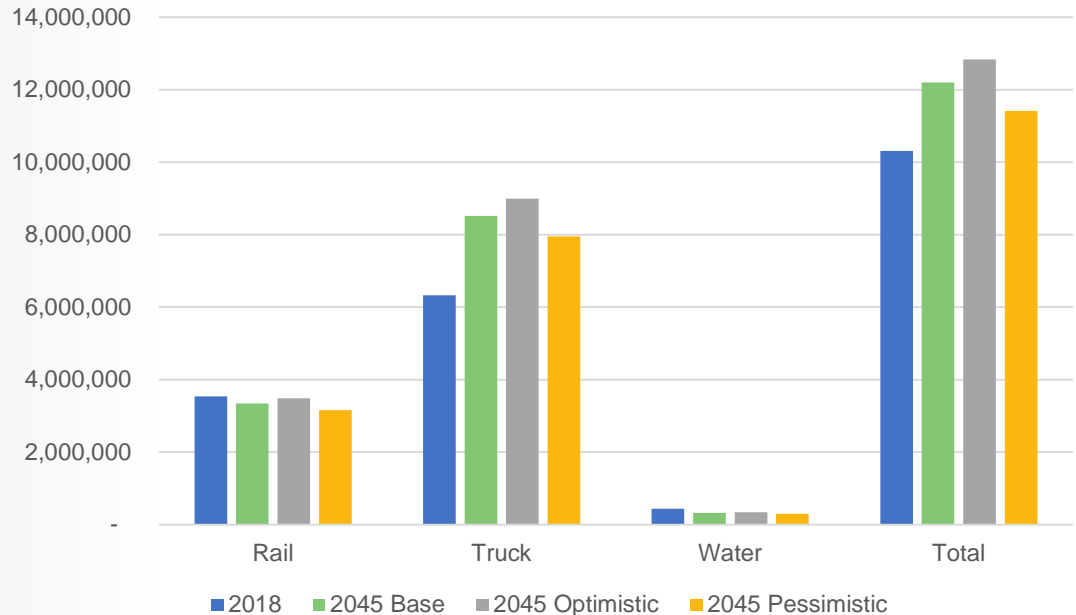
► Total Tonnage Growth to 2045

Baseline Scenario: 18.3%
Optimistic Scenario: 24.5%
Pessimistic Scenario: 10.7%

Baseline Scenario: 34.7%
Optimistic Scenario: 42.2%
Pessimistic Scenario: 25.7%

Baseline Scenario: -5.4%
Optimistic Scenario: -1.4%
Pessimistic Scenario: -10.7%

Freight Forecast Scenarios in 2045, All Ports Hinterlands
(1000s of Tons)



What's Driving Change?

Key Economic Changes Affecting Freight in Kentucky

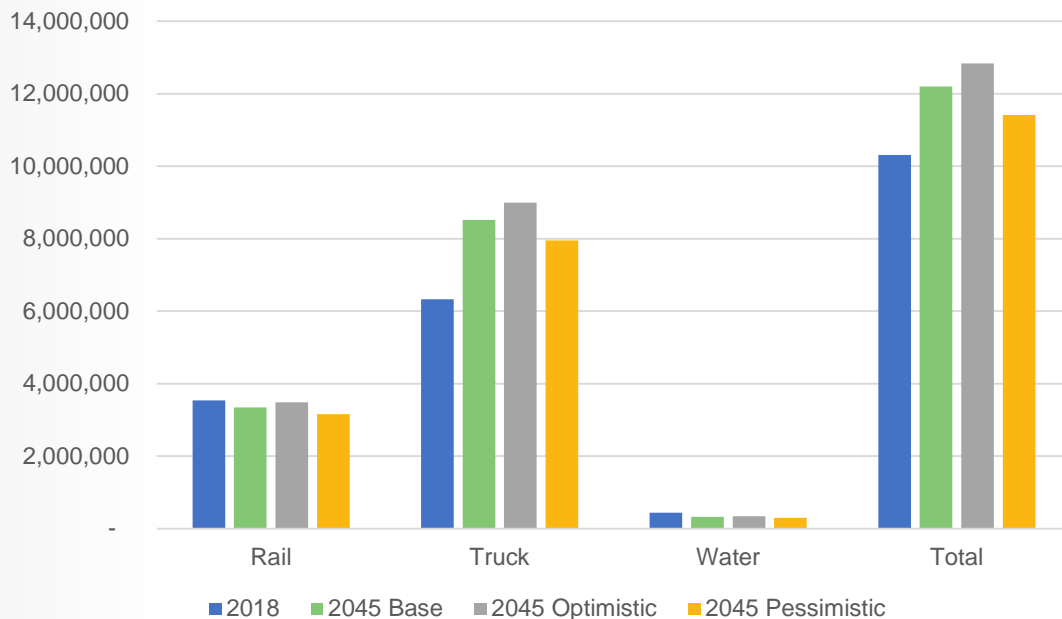
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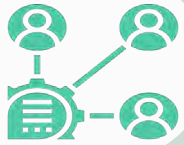
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Freight Forecast Scenarios in 2045, All Ports Hinterlands
(1000s of Tons)





Task 3

Engage Stakeholders on Future Needs & Opportunities

- **Two Rounds of Port Visits Have Revealed Needs for Preservation and New Investment Opportunities**
- **Input from Summits and Interviews have shown strong interest in market capture and business intelligence**
- **Stakeholder input will focus final products on translating economic forecast into market capture potential, “mineable” business intelligence and articulation of roles**
- **Final Stakeholder Discussions will focus on implementation and leave-behind value**

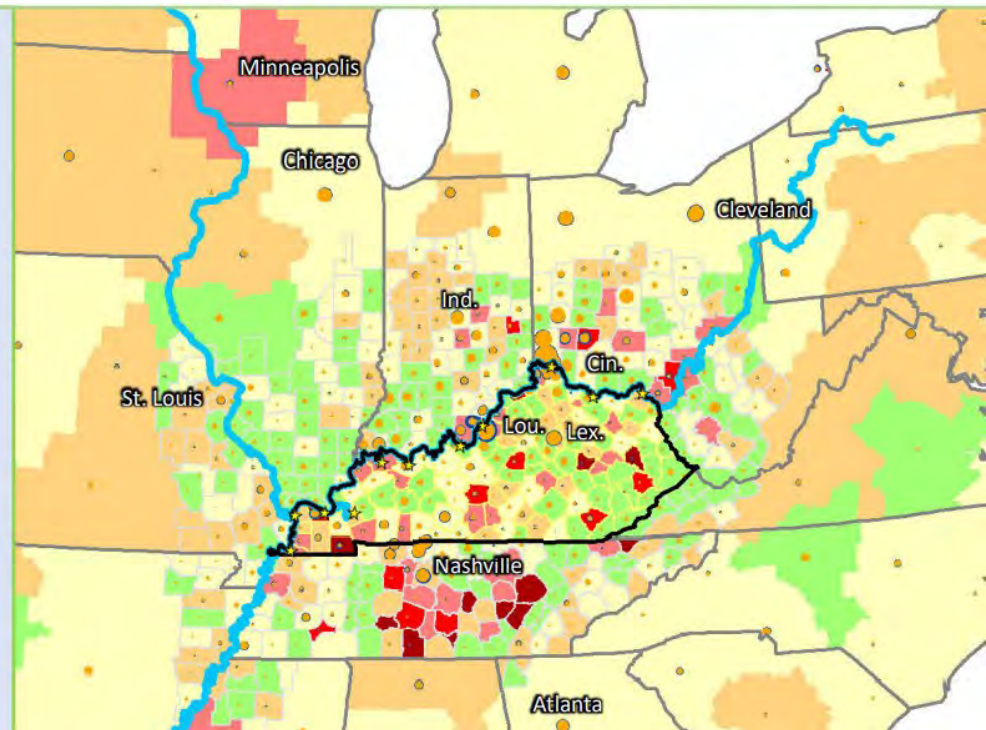
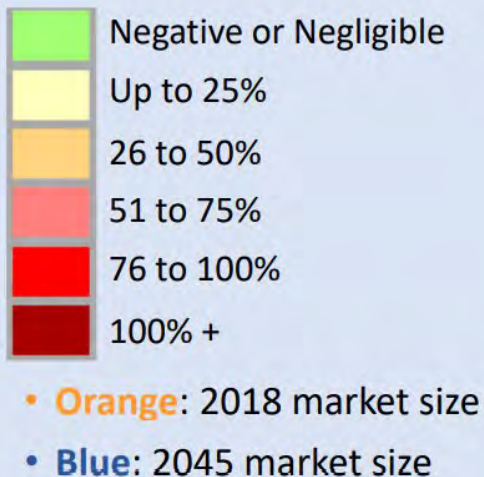


Most Traffic is Water Divertible – But not for entire trip





Market Size + 2018-2045 Percent Change in Divertible Shipment Sizes





Task 4

Investment and Performance Scenarios

- **Consideration of existing funding sources and priorities**
- **Extensive discussion of proposed projects, their rationale and benefits**
- **Opportunities to acquire new funding from new sources, as well as re-allocate funding**
- **Jobs, GDP, and business output impacts part of final report discussion**
- **Product: Technical Memorandum 4: Coming on Web-Site**



Three Investment Levels

Investment Scenario	Investment Level (Preliminary)
New Mkt Pos.	\$134.1M
Optimize Port Eff.	\$42.1M
Preserve/Bus. As Usual	\$12.3M
Total	\$188.5M

Funding and Investment

Kentucky and Its Peer States

	Kentucky	Ohio	Indiana	Illinois	Missouri	Tennessee	Virginia	Florida
State Port Authority			X				X	
Number of Public Port Terminals	11	8	3	19	15	5	5	15
State Budget Dedicated Funds Greater than \$500,000 Annually		\$7.5 M			\$600 K		\$42 M	\$76 M
State Budget Dedicated Funds Less than \$500,000 Annually	\$500 K							
State Ports Grant Programs		\$ 23 M		\$150 M	\$9.4 M		\$5 M	\$44 M
State Rail Grant Programs	X			X		X		X
State Technical Assistance		X	X	X			X	X
Provide Market Outreach Programs or Plans	X	X		X	X	X	X	X
Economic Development Business Community Partnerships	X	X		X		X	X	X



Possible Federal Funding Sources

KENTUCKY RIVERPORTS, HIGHWAY & RAIL FREIGHT STUDY



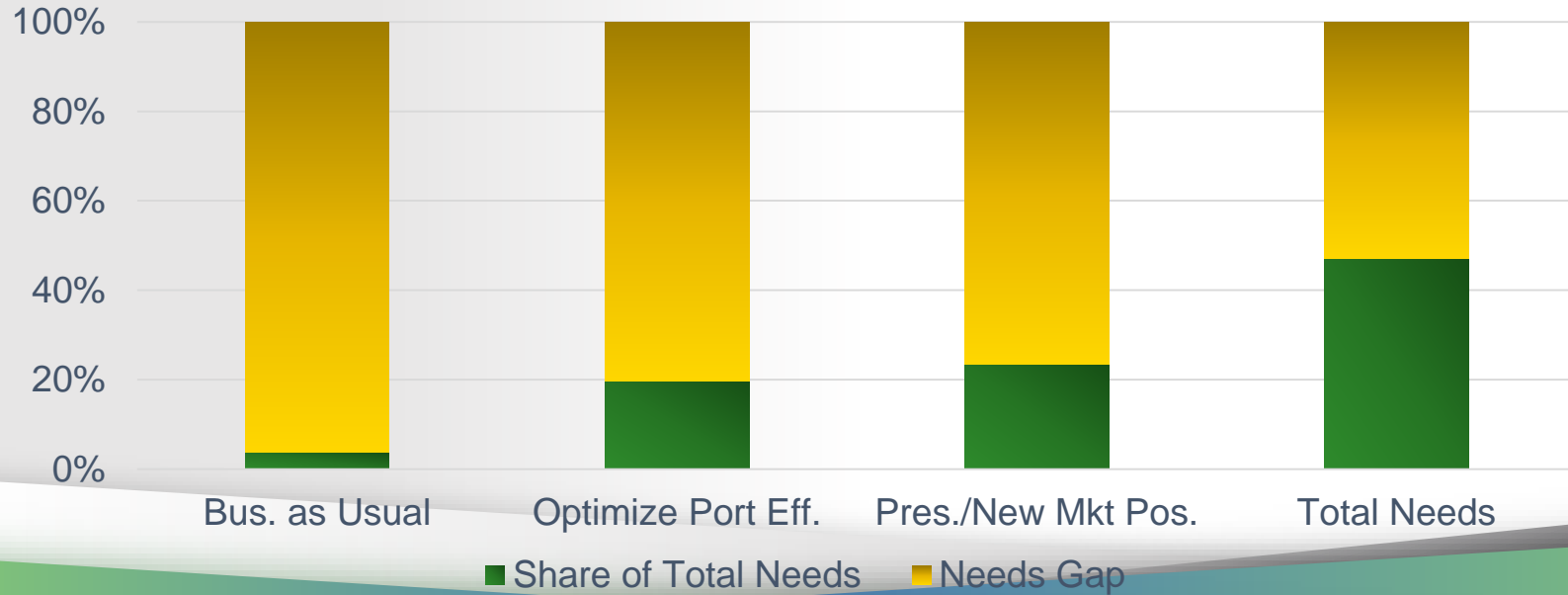
Type	Program	Funding
Infrastructure	ATCMTDP	\$ 12,000,000.00
	BUILD	\$ 900,000,000.00
	Farm Storage	\$ 500,000.00
	INFRA	\$ 856,000,000.00
	Marine Highway	\$ 7,000,000.00
	Passenger Ferry	\$ 33,000,000.00
	PIDP	\$ 292,730,000.00
	RRIF	\$ 35,000,000,000.00
	Transp Alts Set Aside	\$ 850,000,000.00
	WIFIA	\$ 5,000,000.00
Economic Development	Econ Dev Assistance	\$ 3,000,000.00
	Planning Grant	\$ 300,000.00
	APRA-E	\$ 500,000.00

Type	Program	Funding
Resiliency	Disaster Loan Assistance	\$ 200,000.00
	Emergency Relief	\$ 1,000,000.00
	HSGP	\$ 1,095,000,000.00
	PSGP	\$ 100,000,000.00
	SaTC	\$ 1,200,000.00
	TSGP	\$ 88,000,000.00
Environment	Clean Diesel	\$ 4,000,000.00
	Coastal Program	\$ 500,000.00
	CMAQ	\$ 2,500,000,000.00
	Endangered Species	\$ 99,999.00
	Marine Debris	\$ 2,500,000.00
	Pollution Prevention	\$ 500,000.00
	SRA	\$ 260,000.00
	Targeted Airshed	\$ 4,000,000.00
	Wetland Program Development Grants	\$ 300,000.00

Total Funding = \$41.7 Billion, 1% = \$417 Million



Sources Explored Relative to Gaps





Task 5

Scenario Impacts and Preferred Scenario

- **Exploit Opportunities for New Funding**
- **Prioritize Highest Market Opportunities**
- **Relate Port Investment to Market Capture**
- **Ongoing Access to TRANSEARCH and other data/market intelligence resources used in the study**
- **Product: Final Report Coming in October**



Three Investment Levels

Investment Level	B/C Ratio (preliminary)
New Mkt Pos.	3.41
Optimize Port Eff.	2.24
Preserve/Bus. As Usual	1.72



Task 6

Success Roadmap

- **Market Capture Concepts**
- **How Ports can Leverage Economic Development Process**
- **Promotional Materials and Resources**
- **Executive Briefing Materials**
- **Implementation Resources**
- **Product: Marketing Toolkit Coming in October**



Next Steps

1. Consider New Funding Opportunities for High Impact Investments
2. Provide Marketing Toolkit to Competitively Target and Promote New Business at Kentucky Riverports
3. Final Report Emphasizing Market Capture, New Investment and Implementation of Strategic Initiatives for Riverports



KENTUCKY RIVERPORTS, HIGHWAY & RAIL FREIGHT STUDY



Contact Information

<https://transportation.ky.gov/MultimodalFreight/Pages/Kentucky-Riverports,-Highway-and-Rail-Freight-Study.aspx>

Jeremy Edgeworth
Freight, Rail, & Waterways Coordinator
Division of Planning - Modal Programs
Kentucky Transportation Cabinet
e: jeremy.edgeworth@ky.gov
o: (502) 782.5095

Chandler Duncan
Managing Partner
Metro Analytics
e: cduncan@metroanalytics.com
o: (704) 280.7858