



Transportation System Resilience

Why it Matters - a state perspective - TDOT

8-12-2025

Contents

- Overview of a research project – Catalyst for conversation
- Key Findings
- Key Recommendations
- Why it matters?
- State's next steps

Research Project

More effective use of Tennessee waterways to account for competing uses and address freight congestion

INTERNATIONAL ASSOCIATION OF
MARITIME AND PORT EXECUTIVES



Final Report Presentation

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Inland Waterways Overview

- The U.S. inland waterways system (a.k.a. **backbone of the transportation logistic system**) plays a crucial role in our nation's competitiveness and economic growth
- Cost to transport commodities on the inland waterways is roughly **half the cost** to ship by **rail**
- **Cost savings:** \$7 billion (bn) to \$9 bn annually (USACE)
- 2045: \$121 bn in economic output, 450 thousand jobs, and \$62.3 bn in GDP
- State of Tennessee is **one of the 12 states** with the **largest movements** of freight via the inland waterways
- Economic impact in TN: 81,000 jobs, \$3.9 bn in personal income, 6.3 bn in Gross State Product, \$517 million in state and local taxes in 2018
- The goal of this project:
 - Develop a **set of recommended strategic objectives**
 - **Support safe, reliable, and resilient** use of TNs IWS and, at the same time, **maximize economic impact**, support **investment decisions**, and foster **workforce preservation** and **development**
 - **Project Website:** <https://sites.google.com/view/iws-v1-1?usp=sharing>

Key Findings: Establishments

Inland Water Transportation in Tennessee

#19 in Highest Establishments

62

Establishments (2022)

-1.8% ▼
Annual Growth (2017-22)

1.3% ▲
Annual Growth (2022-27)

In 2023 Tennessee Ranks 19th 1.5% of total establishments (64 in 2023)

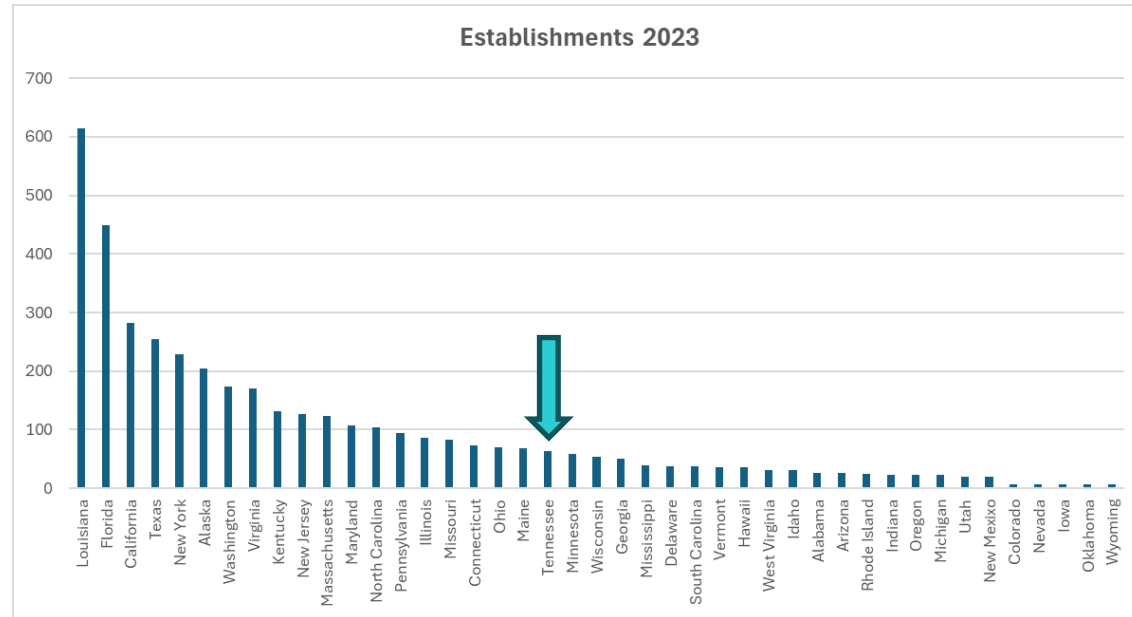
Inland Water Transportation in the US

4,147

Establishments (2022)

4.2% ▲
Annual Growth (2018-23)

3.1% ▲
Annual Growth (2023-28)



Establishment: A single physical location where business is conducted or where services/industrial operations are performed

Key Findings: Revenue

Inland Water Transportation in Tennessee

#3 in Highest Revenue

11.9% of state's GDP

\$938.6m

Revenue (2022)

5.0% ▲

Annual Growth (2017-22)

3.1% ▲

Annual Growth (2022-27)

In 2023 Tennessee ranks 3rd (11.9% of total revenue-\$980m)

Inland Water Transportation in the US

\$7.9bn

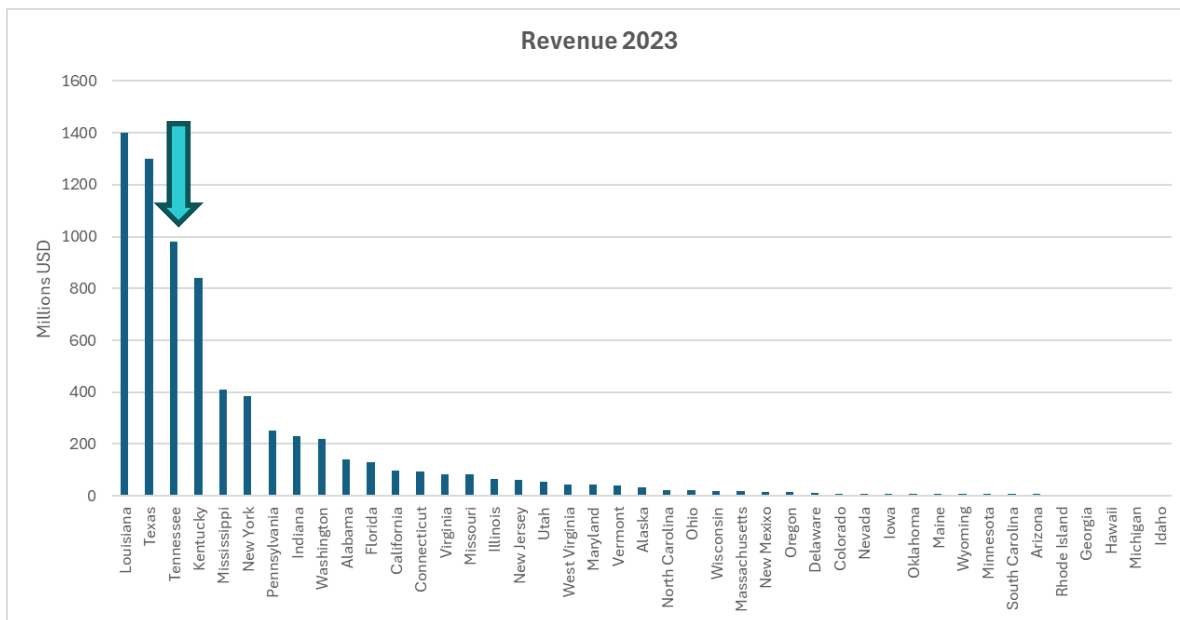
Revenue (2022)

-1.1% ▼

Annual Growth (2018-23)

0.9% ▲

Annual Growth (2023-28)



Key Findings: Employment

Inland Water Transportation in Tennessee

2,722

Employment
(2022)

0.7% ▲

Annual Growth
(2017-22)

#4 in Most
Employment

1.1% ▲

Annual Growth
(2022-27)

**In 2023 Tennessee ranks 4th
Total of 2,779**

Inland Water Transportation in the US

24,348

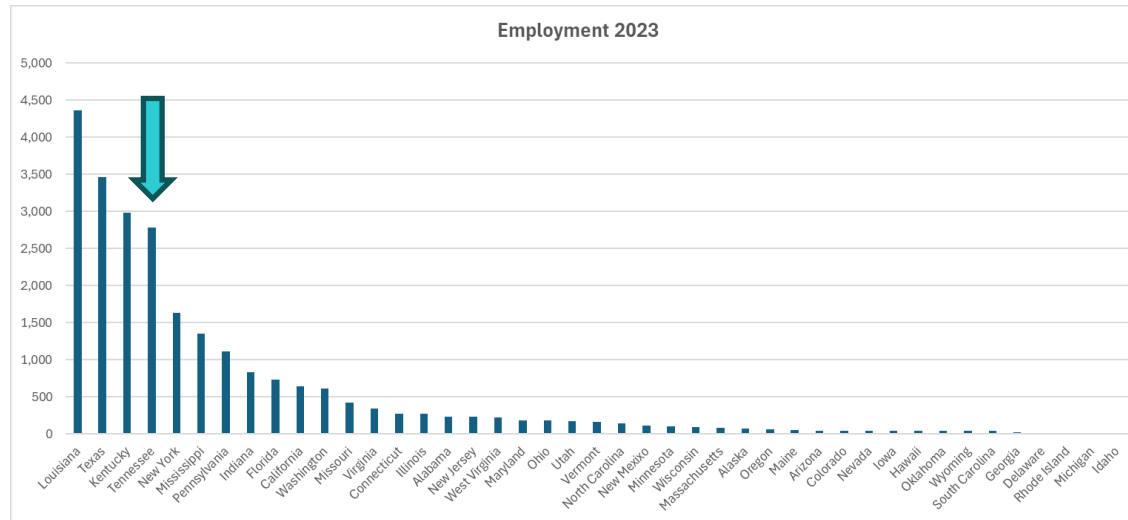
Employment
(2022)

1.8% ▲

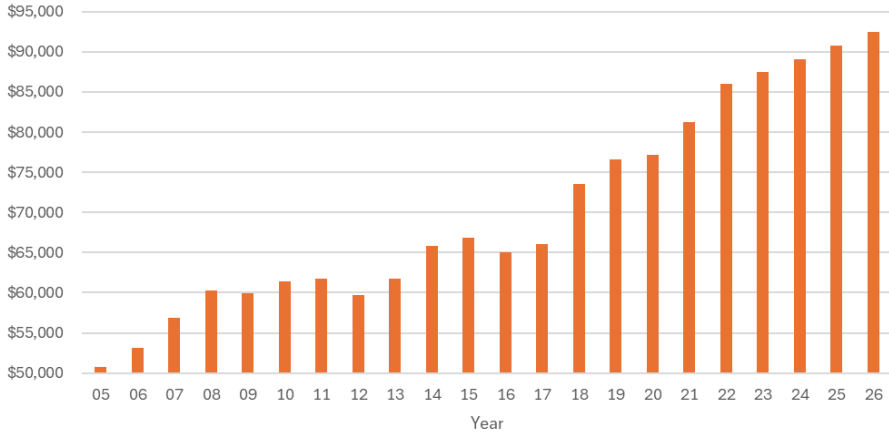
Annual Growth
(2018-23)

1.4% ▲

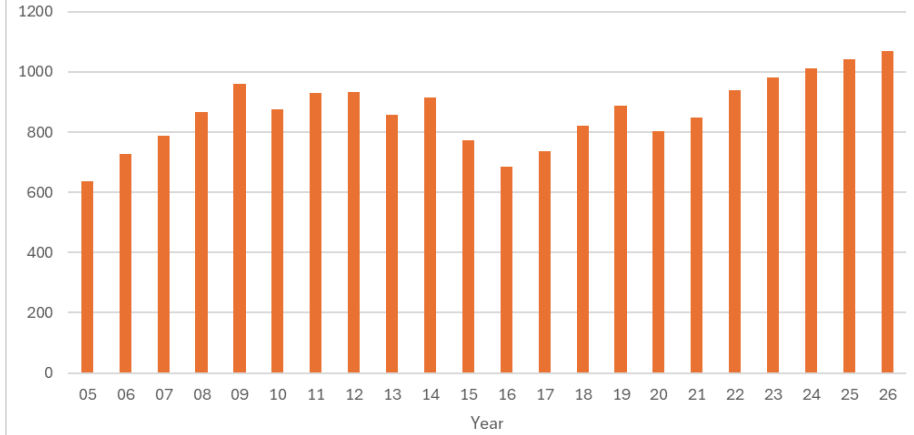
Annual Growth
(2023-28)



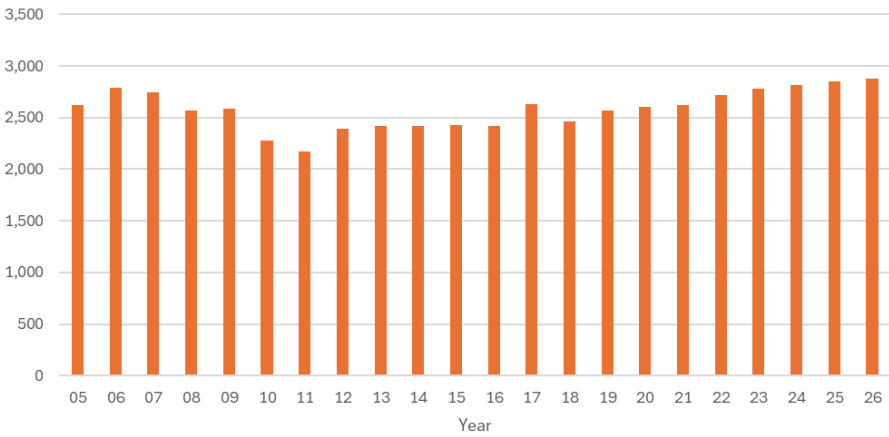
Average Wage



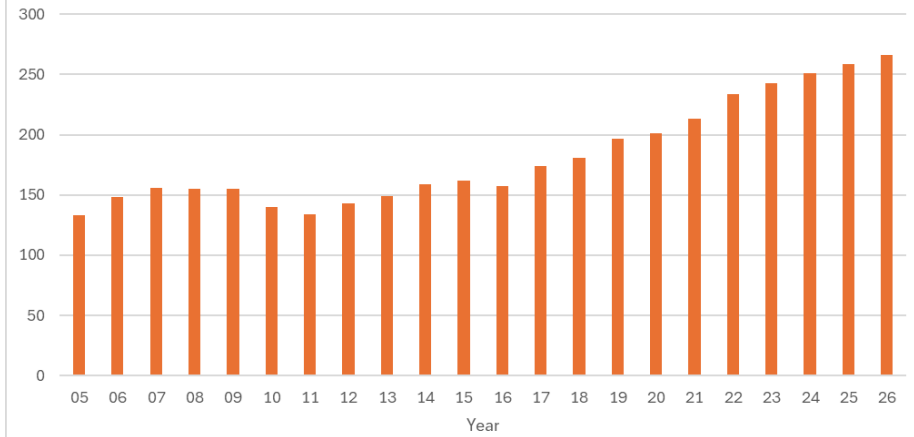
Revenue (millions USD)



Employment



Wages (millions USD)



Tennessee IWS Economic Impact Overview by County

Davidson County → 24 Est. Most Establishments	Davidson County → \$417.1m Highest Revenue	Davidson County → 10.8% Fastest Growing
Shelby County → 10.8% Slowest Growing	Shelby County → \$86,059.4 Highest Average Wage	Davidson County → 1,210 Employees Most Employees

County	Wages \$	Annual Growth Rate (2021-22)	Share of State
<u>Davidson County</u>	104.0m	9.8%	44.4%
<u>Shelby County</u>	78.0m	9.8%	33.3%
<u>Hamilton County</u>	26.0m	9.8%	11.1%
<u>Knox County</u>	26.0m	9.8%	11.1%

County	Employment	Annual Growth Rate (2021-22)	Share of State
<u>Davidson County</u>	1,210	3.9%	44.5%
<u>Shelby County</u>	906	3.7%	33.3%
<u>Hamilton County</u>	304	4.1%	11.2%
<u>Knox County</u>	304	4.1%	11.2%

County	Revenue \$	Annual Growth Rate (2021-22)	Share of State
<u>Davidson County</u>	417.1m	10.8%	44.4%
<u>Shelby County</u>	312.9m	10.8%	33.3%
<u>Hamilton County</u>	104.3m	10.8%	11.1%
<u>Knox County</u>	104.3m	10.8%	11.1%

Key Recommendations

1. Investigate the creation of a statewide Ports Council (perhaps under the Passenger Transportation, Rail and Freight Division)
2. Maintenance of the online database developed as part of this project
3. Grant writing support (already in place)
4. Access for the Ports Council to a potential full time TDOT support person
5. Port Council should review all proposed Federal projects, set State priorities and work with key agencies through Council staff to ensure attention is paid to key issues that impact the State.
6. A senior position within the Passenger Transportation, Rail and Freight Division is created focused on port and waterway planning
7. A position could be created within the Passenger Transportation, Rail and Freight Division, also to work closely with rail personnel in TDOT to ensure that the transportation network is properly protected and funded as appropriate
8. Strong emphasis on coordination with short line efforts
9. Establish a program, supported by Federal and State grant funding, for purchase of new cargo handling equipment for port and terminal facilities
10. A reporting system should be implemented/established coordinated with the State regarding waterway conditions and safety issues

Next Steps and Goals

- Potentially submit legislation creating the Tennessee Port Council
 - Chaired by Governor's office staff with State Department high ranking personnel of the following agencies (TDOT, TNECD, TDEC). TDOT staff with regional representatives to discuss and make decisions on transportation system investment including port facilities
- Provide a dedicated state funding allocation under the legislation to investigate specific requirements and develop investment plan
- Meetings should be public as required and regionally held

Why It Matters to Tennessee

- Potential grant funding
 - Marine Highway designations
 - Funding for PPP
- Geography
- Kentucky Lock – \$1.56 B – Completion est. 2033 – 25 years
- Chickamauga Lock - \$951 M - Operational est. 2028 – 22 years
- Cherokee Marine example
- Emphasis on rural opportunities for jobs

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On the Horizon

- Further research needed – current University research
 - ROI comparing water versus rail projects where the state has invested
 - Navigating Possibilities: Unlocking Tennessee's Waterways for Interstate Freight Transportation
- Promoting dialogue with others (like this forum) as no state DOT's are organized the same way
- Collaboration with other waterway organizations
- Best practices around the world should be shared



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