ECONOMIC IMPACT OF PENNSYLVANIA'S INLAND WATERWAYS



IN 2018, PENNSYLVANIA'S PORTS, INLAND WATERWAYS, AND INLAND WATERWAYS-DEPENDENT INDUSTRIES SUPPORTED

Nearly 248,000 jobs

\$19.3 billion in personal income

\$40.9 billion in Gross State Product

...Giving rise to **\$4.3 billion** in state & local tax revenue

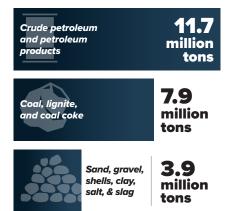
\$84.5 billion in total output

INLAND WATERWAYS SUPPORT PENNSYLVANIA'S KEY INDUSTRIES

Industry Sub-Category	Percent of Goods Shipped by Water (Tons)	Direct Pennsylvania Jobs
Oil & gas extraction	← 6.4% of outbound	4,400
Mining (except oil & gas)	← 4.8% of outbound	9,690
Petroleum & coal products mfg.	Ge 4.6% of inbound	5,820
Utilities	Ge 4.6% of inbound	22,880
Chemical manufacturing 🕞 3	3.3% of inbound / 🕞 3.6% o	utbound 39,750

TOP INLAND WATERWAYS COMMODITIES BY WEIGHT

(comprising 88% of total tonnage)



TOP INLAND WATERWAYS COMMODITIES BY VALUE (comprising 62% of total value)



Pennsylvania has **260 MILES** of navigable inland waterways, ranking it

28th in the nation

PENNSYLVANIA'S INLAND WATERWAY ASSETS AT A GLANCE



Ohio, Allegheny, Monongahela, Delaware, and Schuylkill Rivers and the Great Lakes System



In 2018, **26.7M** tons of freight valued at \$15.8 BILLION

moved on Pennsylvania's inland waterways, which is equivalent to 667.000 TRUCKS

Avoided trucks translates into reduced congestion, emissions, and crashes, and contributes to the state of good repair of highway infrastructure

BENEFITS OF INLAND WATERWAYS TRANSPORTATION

America's inland waterways system is vital to our nation's competitiveness and economic growth. The inland waterways efficiently, sustainably, cost-effectively and safely transport critical commodities like agricultural goods, energy products, building materials and industrial chemicals to destinations within the U.S. and to deep water ports for export. In 2018, 766.3 million tons of goods valued at \$507.3 billion moved on the U.S. inland waterways system, and by 2045 it is expected to increase by 23% to 942 million tons valued at \$871 billion. Barge transportation is the safest, most environmentally-friendly, economical, and fuel-efficient way to move our nation's goods for use domestically and for export. On a single gallon of fuel, one barge can move freight more than four times farther than trucks, releasing 10 times fewer emissions.

Called "the backbone of the transportation logistics system," the inland waterways are a key part of the United States' transportation supply chain. The system includes a vast network of 12,000 miles of connecting waterways and 218 locks. However, the majority of locks and dams on the Mississippi River system were constructed during the 1930s and are operating well beyond their 50-year design life. Modernizing the nation's inland waterways system will support and create American jobs, increase U.S. exports, and inject billions of dollars into the U.S. economy to power our growth for the next 50 years.

Sources: U.S. Department of Agriculture Inland Waterways Study (2019); U.S. Army Corps of Engineers Waterborne Commerce Statistics; Federal Highway Administration Freight Analysis Framework; U.S. Department of Labor Bureau of Labor Statistics Occupational Employment Statistics; IMPLAN

One standard **15-barge tow**

moves the equivalent volume of

216 rail cars

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1,050 trucks

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Source: National Waterways Foundation

Over the next 10 years, constructing all authorized navigation projects and rehabilitating existing locks could have significant national impacts, leading to a 20% increase in jobs, 39% increase in Gross Domestic Product, and 40% increase in output



The **US' inland waterways system saves** between

annually over the cost of other modes due to efficiency and low cost

The National Waterways Foundation estimates overall investment needs of inland waterways at \$8 billion over the next 10 years

The U.S. currently has a \$5.35 per metric ton advantage over

Brazil when shipping soybeans on the inland waterways system from Davenport, Iowa, to Shanghai, China. Source: USDA

In 2016, **250M** recreational visitors of Corps lakes resulted in **\$10.6B in total trip spending**, supporting over **189K jobs nationwide** Source: USACE Barges have the smallest carbon footprint among freight transportation modes



Tons of CO2 per Million Ton-Miles

Compared to barges, moving an identical amount of cargo by rail generates 30% more emissions, while trucks generate 1,000% more emissions.

Source: Texas Transportation Institute

Source: USDA