

TRIP: By Value, Trucks Moved 72% of Freight in 2022

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America's Rolling Warehouses: Opportunities and Challenges with the Nation's Freight Delivery System looks at the current and projected levels of freight movement in the U.S.

Photo: Canva/TRIP/HDT Illustration

E-commerce growth, drones, lower-emission vehicles, and sky-high logistics costs are among the trends examined in a new report by TRIP. TRIP, a nonprofit organization that researches, evaluates, and distributes economic and technical data on surface transportation issues; released a 33-page report on the nation's freight delivery system.

"America's Rolling Warehouses: Opportunities and Challenges with the Nation's Freight Delivery System" looks at the current and projected levels of freight movement in the U.S., large truck safety, and trends impacting overall freight movement within the United States.

Record High Logistics Costs

"The delivery of freight — merchandise or commodities that are moved by a mode of transportation either for a fee or by a private fleet — is expected to increase rapidly as a result of economic growth, increasing demand, changing business and retail models, and a significantly increased reliance on e-commerce by businesses and households," TRIP noted in [the report](#).

"U.S. logistics costs as a share of GDP reached the highest level on record in 2022; some \$2.3 trillion in 2022, representing 9.1% of U.S. GDP, which is the highest share ever."

TRIP said that, in 2022 the U.S. freight system moved approximately 19.7 billion tons of freight valued at approximately \$18.8 trillion, which equated a daily average of approximately 54 million tons of freight valued at approximately \$52 billion.

Overall, trucking accounted for the largest modal share of freight movement in 2022, carrying 72% of freight by value and 64% by weight, TRIP noted.

Key Trends

The organization noted that key trends affecting the U.S. freight transportation sector now and in the future include:

- The major growth in e-commerce. In the last decade, U.S. retail e-commerce sales increased nearly four and a half times, from \$64 billion in the second quarter of 2013 to \$278 billion in the second quarter of 2023. The COVID-19 pandemic rapidly accelerated the growth in retail e-commerce, with U.S. e-commerce sales increasing from \$160 billion in the first quarter of 2020 to \$278 billion in the second quarter of 2023 — a 73% increase.
- The use of [drones for last-mile deliveries](#) is a potential innovation for what can be the most difficult and expensive aspect of the supply chain. While the use of drones for last-mile delivery will still need to clear several hurdles, including Federal Aviation Administration regulations, public perception, and the technology itself, many companies have been testing drone deliveries.
- With medium and heavy-duty trucks accounting for nearly a quarter (23%) of U.S. transportation greenhouse gas emissions in 2021, a transition to lower carbon transportation fuels — including electric, biofuels, [renewable natural gas](#), and [hydrogen](#) — will be critical in reducing the nation's greenhouse gas [emissions](#).

"The transition to greater large truck autonomy and lower-carbon transportation fuels should improve the safety and sustainability of freight movement but must be implemented in a way that does not reduce freight efficiency and minimizes economic disruption," TRIP said in its report. "Improving freight network safety will require additional improvements in roadway safety, particularly along highways and at major intersections," the group added. "It will also require the provision of additional [truck parking](#) spaces to ensure safe, adequate, and timely rest for drivers."

Freight by State

The TRIP report also noted the amount of freight shipped to or from sites in each state, by all modes and by trucks. The top 10 states for shipping by truck, when measured by value, are:

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| 1. Texas | 6. Pennsylvania |
| 2. California | 7. Michigan |
| 3. Illinois | 8. Georgia |
| 4. New York | 9. Florida |
| 5. Ohio | 10. New Jersey |

RANK	STATE	2022 Freight by Weight All Modes (thousands of tons)	STATE	2022 Freight By Weight Shipped by Truck (thousands of tons)
1	Texas	3,403,458	Texas	1,723,724
2	California	1,397,905	California	995,595
3	Louisiana	1,383,421	Illinois	755,633
4	Illinois	1,270,882	Florida	657,257
5	Ohio	980,297	Ohio	596,655
6	Pennsylvania	896,629	Pennsylvania	572,677
7	Florida	838,912	New York	535,876
8	Indiana	814,538	Indiana	468,573
9	Minnesota	760,175	Wisconsin	462,805
10	Michigan	755,676	Georgia	460,187

The TRIP report analyzes freight movement by weight.

Source: TRIP

The report also forecasts the growth of shipping by truck from 2022 to 2050. The 10 states expected to see the most growth, measured in terms of freight value, are:

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| 1. Mississippi | 6. Colorado |
| 2. Delaware | 7. Nebraska |
| 3. Louisiana | 8. California |
| 4. South Carolina | 9. Missouri |
| 5. Tennessee | 10. Ohio |

RANK	STATE	2022 Freight by Value All Modes (millions of dollars)	STATE	2022 Freight By Value Shipped by Truck (millions of dollars)
1	Texas	3,132,697	Texas	2,053,701
2	California	2,845,127	California	1,896,400
3	Illinois	1,571,188	Illinois	1,123,656
4	New York	1,338,798	New York	1,001,711
5	Pennsylvania	1,137,664	Ohio	826,916
6	Michigan	1,090,656	Pennsylvania	818,624
7	Ohio	1,085,222	Michigan	798,274
8	Florida	1,064,559	Georgia	737,382
9	New Jersey	996,118	Florida	736,889
10	Georgia	985,880	New Jersey	726,281

The TRIP report analyzes freight movement by value.

Source: TRIP

Trucking Freight Growth

Overall, the report forecasts that from 2022 to 2050 freight moved by truck will increase by 91% when measured by value and 53% when considered by weight.