N.C. Department of Transportation

Freight & Logistics

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September 2022

NCDOT RAIL DIVISION FREIGHT & LOGISTICS PROGRAM

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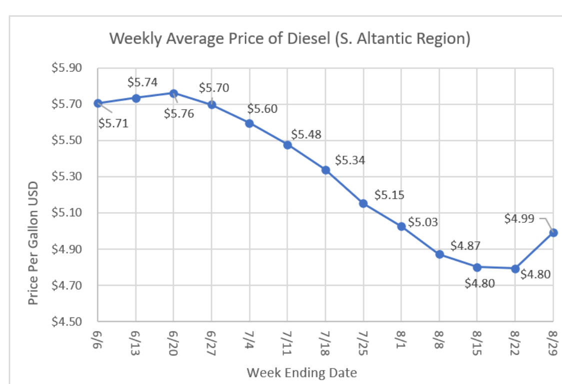
Cost of Congestion & Key Freight Bottlenecks — August 2022 Recap

Delay and congestion cost commercial industry millions of dollars each year. This cost eventually becomes a burden on the sustainability of the freight transportation sector, and the cost of goods and services for the end-consumer. This can be as straightforward as friction between volume and capacity, but freight congestion can also represent the challenge of reconciling network functionality with economic behavior.

Performance Measure	Jul-22	% CHANGE	Aug-22	% CHANGE
NCPFN System Total Commercial Cost of Delay (NPMRDS)	$ 125,740,799	-2.0%	$ 134,236,340	6.8%
NCPFN System Commercial Average Daily Cost per VMT (NPMRDS)	$ 0.28	-3.4%	$ 0.29	3.6%
Commercial VMT on the NCPFN System	446,235,677	-0.5%	463,176,481	3.8%
NCPFN System Com. Vehicle-hours of Delay (NPMRDS) (#Hours)	1,251,277	-2.0%	1,335,818	6.8%
Top 10 Bottlenecks Total Cost of Delay	$ 6,174,271	4.2%	$ 5,862,838	-5.0%
Top 10 Bottlenecks % of Total Cost	4.91%	6.4%	4.37%	-11.1%
Top 10 Bottlenecks Average Daily Total Cost of Delay	$ 199,170	0.8%	$ 189,124	-5.0%
Commercial VMT on Top 10 Bottlenecks NCPFN System	16,098,264	41.5%	12,552,693	-22.0%
Top 10 Bottlenecks Cost per VMT	$ 0.38	-26.9%	$ 0.47	23.7%

Rank	Previous Rank	August 2022 Bottleneck Locations	Average Daily Delay*	Events or Incidents	Division
1	~	I-40 East at US-70, Exit 306 between Garner and Clayton	1 h 8 m	16	5
2	4	I-85 South at NC-273, Exit 27 between Charlotte and Belmont	1 h 12 m	5	10
3	16	I-77 North at Clanton Road, Exit 7 south of Charlotte	16 m	12	10
4	52	I-77 North at US-74, Exit 9 near Bryant Park	14 m	24	10
5	7	I-77 North at Tyvola Road, Exit 5 in Charlotte	1 h 18 m	5	10
6	6	I-77 South at Remount Road, Exit 8 in Charlotte	1 h 46 m	28	10
7	~	I-77 South at Gilead Road, Exit 23 in Huntersville	1 h 20 m	19	10
8	184	I-40 West at Georges Branch Road, Exit 37 east of Canton	16 m	17	13
9	~	I-40 East at US-70, Exit 309 in Garner	20 m	26	5
10	20	I-26 East at US-64, Exit 49 northeast of Hendersonville	23 m	43	14

~ not previously ranked ** hours per day in which congestion was present*



The Statewide Priority Highway Freight Network experienced a 6.8% increase in congestion during August 2022 with the cost to commercial enterprise exceeding $134.2M at the same time overall commercial vehicle miles traveled increased by nearly 4%. This increase in congestion costs ended a two-month turnaround with improvements over June and July, putting August's congestion numbers more in-line with the previous quarter's average of $133.96M in 2Q2022. The increase in VMT on the network was the first month over month increase since May 2022 and the second highest increase this year since a 6% increase in March. Increased congestion costs in August coincided with a brief increase in diesel prices in North Carolina, the first such increase since its peak

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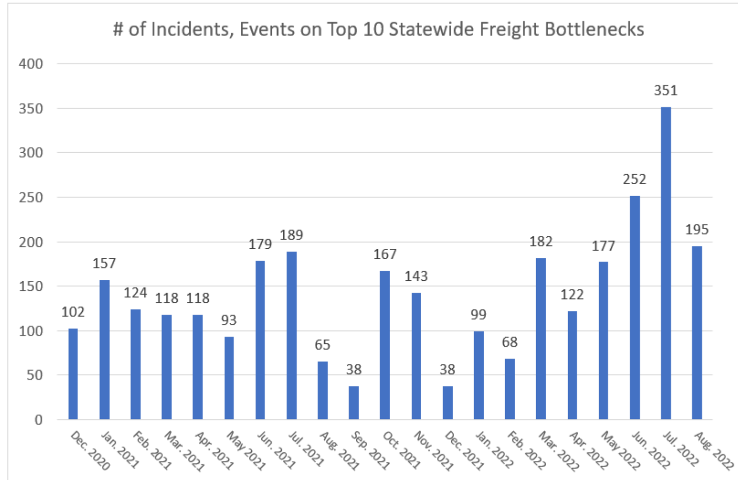
Cost of Congestion & Key Freight Bottlenecks, *con-*

in June, however fuel prices continued to decline on average month over month going into September. Contrary to the overall network, VMT on August's Top 10 bottlenecks declined by 22% and their share of overall statewide congestion costs declined more than 11% over July. Six of August's top 10 bottlenecks were also outside of the rankings last month with the I-77 corridor in the Charlotte metro region representing half of the top 10. Incidents and events were less of a factor in August with an 80% decrease from July. Despite improvements in the Top-10, overall the Statewide Priority Highway Freight Network experienced reduced fluidity versus July 2022, but a slight 5.3% improvement Year-over-Year from August 2021.



Key Supply Chain Issues facing North Carolina

- *Freight rail lockout or labor strike averted, for now...:* On September 15th, US freight rail companies and labor unions representing their workers reached a tentative labor agreement and averted a nationwide lockout or labor strike which would have shut down freight trains and cost the US economy an estimated $2B per day. After three years of working without a contract, the threat of a management lockout or labor strike quickly garnered national media attention with both passenger and freight rail services implementing preemptive operational changes in the case of a work stoppage. The tentative agreement was reached just hours in advance of the expiration of a 30-day cooling off period following the inability of the Presidential Emergency Board (PEB) to facilitate an agreement earlier in the summer. The key issues of contention included staffing and attendance policies implemented by the railroads. According to the Associated Press, "Railroad workers will now be able to take unpaid days off for doctor's appointments without being penalized, and won't be penalized if hospitalized. Previously, workers would lose points under attendance systems." The tentative agreement also included increases in wages and retroactive payments. With the initial threat of a work stoppage avoided, the agreement is now subject to ratification by union members before being formally adopted. There is no guarantee that the tentative agreement will be ratified as presented so the threat of lockout or work stoppage remains a real concern for shippers and the broader US economy.

- *Hurricane Fiona impacts on Puerto Rico prompt Jones Act waiver, thrusting the controversial legislation into the spotlight:* Following the devastating impact of Hurricane Fiona on the US protectorate of Puerto Rico, the US Department of Homeland Security granted a "temporary and targeted" waiver of Section 27 of the Merchant Marine Act of 1920, more commonly known as the Jones Act on September 28th. The legislation requires that goods shipped between domestic US ports to be transported on vessels built, owned, and crewed by US citizens. The Jones Act, intended to strengthen the domestic maritime sector also increases costs for shipping to Alaska, Hawaii, Puerto Rico, and other non-continental U.S. islands by restricting vessels that can serve these markets. The supply of US built, owned, and operated ships is extremely limited compared to the capacity of the global maritime sector. With the waiver, Puerto Rico will now have access to direct fuel and supply shipments from mainland US ports whereas they would have previously sourced goods from foreign markets. Critics of the legislation argue that the law is unnecessary protectionist policy that supports an otherwise unsustainable domestic sector while increasing costs and economic inefficiencies for hundreds of thousands of American citizens. Supporters of the legislation point to the importance of sustaining at-the-ready domestic maritime capabilities for national security and military mobilization. With the highly visible situation facing Puerto Rico, the debate over the ongoing relevance of the Jones Act, long raging in maritime circles, has entered the broader discourse on inflation and the economy. The most recent waiver of the Jones Act was following the landfall of Hurricane Maria in September 2017 and provided for a 10-day window of service to the island by domestic shippers.