Measures of Freight Network Resiliency During the Covid-19 Pandemic Dataset

Dataset available at: https://doi.org/10.5281/zenodo.4315005

(This dataset supports report **Measures of Freight Network Resiliency During the Covid-19 Pandemic**)

This U.S. Department of Transportation-funded dataset is preserved by Maritime Transportation Research and Education Center (MarTREC) in the Zenodo Repository (https://zenodo.org/), and is available at https://doi.org/10.5281/zenodo.4315005

The related final report **Measures of Freight Network Resiliency During the Covid-19 Pandemic**, is available from the National Transportation Library's Digital Repository at https://rosap.ntl.bts.gov/view/dot/57488.

Metadata from the Zenodo Repository record:

Title: Measures of Freight Network Resiliency During the Covid-19 Pandemic
Author: Sarah Hernandez; Salvador Hernandez; Andrew Balthrop
Description: Recent headlines depict significant shifts in operations within the freight community in particular, e.g., HOS laws suspended at a national level for the first time in 82 years1; national carriers shifting operations completely to grocery supply chains2; fleet operators laying off employees in response to manufacturing closures3. As a result of the current COVID-19 pandemic, there is a great need to capture freight movement data (not otherwise collected) to measure the effects of the COVID-19 response and recovery practices on freight network resiliency. In this project, we consider an expanded definition of the freight network, beyond roads and warehouses, to include truck drivers and driver support systems. Driver support systems include physical infrastructure like public and private rest stops as well as operational protections like Hours of Service (HOS). COVID-19 responses by public agencies and private citizens have affected drivers and driver support systems by three mechanisms. First, increased demand for medical supplies, food and packaged goods creates a need for more trucks and drivers, and the increased need for quick shipments promotes an environment in which speeding and unsafe driving practices may prevail. Second, with HOS restrictions lifted by the National Highway Transportation Safety Administration (NHTSA) driver fatigue may occur at greater frequency leading to unsafe driving conditions and higher likelihood of accidents. Third, the effects of social distancing mandates can lead to closures of critical, but oft forgotten, freight infrastructure like rest areas and truck stops, leaving drivers without necessary rest opportunities. While any single mechanism has detrimental effects on driver health and safety, the economy, and national recovery efforts, when combined, the system can be pushed to failure. Pandemic responses have only exacerbated critical industry issues like driver shortages, lack of available parking, and HOS compliance issues stemming from electronic logbooks. The purpose of this work was to develop and implement a driver health and safety survey during the pandemic.
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Dataset description:
This dataset contains 1 .zip file collection described below.

Measures_of_Freight_Network_Resiliency_During_COVID-19.zip:
This dataset contains 1 .xlsx file and 1 .pdf file described below.

- COVID Truck Driver Survey 2020.xlsx:
- MarTREC Report Truck Survey_ab1 SVH.pdf

The .xlsx file is a Microsoft Excel file, which can be opened with Excel, and other free available software, such as OpenRefine.

The .pdf file format is an Adobe Acrobat Portable Document Format (PDF) file and can be opened with the Adobe Acrobat software.

National Transportation Library (NTL) Curation Note:
As this dataset is preserved in a repository outside U.S. DOT control, as allowed by the U.S. DOT's Public Access Plan (https://ntl.bts.gov/public-access) Section 7.4.2 Data, the NTL staff has performed ***NO*** additional curation actions on this dataset. NTL staff last accessed this dataset at https://doi.org/10.5281/zenodo.4315005 on 2021-11-03. If, in the future, you have trouble accessing this dataset at the host repository, please email NTLDataCurator@dot.gov describing your problem. NTL staff will do its best to assist you at that time.