Environmental aspect of Trucks Policy Analysis in Chicago region

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Abstract

Freight Analysis frameworks (FAF) provides estimates of tonnages and values for different types of commodities between states and major metropolitan areas. This database establish a good resource for analyzing the movements and behavior of freight in the U.S.A. However FAF data is aggregated and transportation planners and decision makers need to disaggregate these data to obtain a better and more detailed picture of freight movements in any specific area. There are different types of disaggregation methods which will be covered in this study. Most of these methods rely on population and employment data. Considering the results of other studies, this study uses a comprehensive method which mostly depends on supplier firms for each commodity and local employment data for the state of Illinois to apportion the FAF data into county level. The focus of this study will be on 6 counties of Chicago Metropolitan area to investigate truck movements and their corresponding emissions according to different policies. One of these policies is curfew for trucks in Chicago region. In this specific policy some types of trucks cannot enter the city in some special hours. This study analyses this policy in terms of its environmental aspects and hope to answer questions: *Why* do we explore the effects of relaxing some hours in total emission, congestion, etc. Initial results show that by relaxing some hours, total truck emissions will be reduced according to distributing truck movement in a more broad range of hours in a day.

**Keywords:** Truck emission, FAF disaggregation, Supplier Selection, freight policy