

Comprehensive Freight Demand Data Collection Framework for Large Urban Areas

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Abstract The chapter analyses characteristics and unique features of the freight system, data requirements of different modeling techniques, and the roles of various data collection procedures. The analyses produce a set of findings of relevance to the design of comprehensive freight data collection frameworks for mid-size and large urban areas. Building on these findings, the chapter identifies a modular data collection framework that would enable transportation agencies to mix and match data collection efforts depending on their needs and constraints.

1 Introduction

The freight transportation system could be understood as a physical manifestation of the economy, where monetary transactions create a flow of commodities from a set of origins to destinations. For that reason, the study of the movement of these flows or freight transportation system is of extreme importance. Among other things it will lead to a better understanding of the economic impacts of transportation investments which will enhance economic competitiveness. This point was emphasized two decades ago with the promulgation of the Intermodal Surface Transportation Efficiency Act of 1991 and the 1998 Transportation Equity Act for the twenty-first Century (National Cooperative Highway Research Program

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