



## QUARTERLY PROGRESS REPORT

Project Title:	Estimation of Truck Volume and Flows		
RFP NUMBER: NJDOT 2001-18	NJDOT RESEARCH PROJECT MANAGER: Nicholas Vitillo		
TASK ORDER NUMBER/Study Number: 116 / 4-26855	PRINCIPAL INVESTIGATOR: Maria Boilé		
Study Start Date: 01/01/2002 Study End Date: 12/31/2003	Period Covered: 2 <sup>nd</sup> Quarter 2002		

Task	% of Total	% of Task this quarter	% of Task to date	% of Total Complete
Literature Search	6%	45%	95%	5.7%
<b>Task 1</b> Data collection	8%	25%	75%	6%
<b>Task 2</b> List of major truck generating facilities	8%	20%	30%	2.4%
<b>Task 3</b> Criteria or factors that influence changes in truck flow	10%	0%	0%	0%
<b>Task 4</b> Relationships between ADT and truck volumes	16%	0%	0%	0%
<b>Task 5</b> Methods to estimate truck flow and truck percentages	17%	0%	0%	0%
<b>Task 6</b> Validate the estimation method on a selection of 12 routes	17%	0%	0%	0%
<b>Task 7</b> Apply methodology on a statewide basis	8%	0%	0%	0%
<b>Task 8</b> Quarterly progress and final reports	10%	0%	0%	0%
TOTAL	100%			14.1%

### 1. Progress this quarter by task:

*Task 1 – The literature review report is nearing completion and will be submitted to the NJDOT project team for their review. It consists of two main sections, one concentrating on traffic data collection methods, with emphasis on truck traffic data, and one on freight models and their applications. A meeting with NJDOT personnel was held and truck counts data were obtained.*

*Task 2-1 – The truck counts database has been partially developed. The collection of all available 2000 WIM station vehicle classification counts in New Jersey, obtained from NJDOT, has been completed. Truck counts data had to be entered manually into the GIS database that has been developed. . Additional truck related information, including truck counts available through other sources, have been compiled in the database. Functional classification information was also collected and entered into a geographic database. The functional class data was taken from the latest New Jersey CMS network*

*Task 2-3 – In addition to the population and employment data which had been assembled from the 1990 Census Transportation Planning Package (CTPP), additional information has been obtained through the Woods & Poole Economics, Inc. database. This database contains more than 550 economic and demographic variables for every*

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county in the United States for every year from 1970 to 2025. It includes detailed employment data and earnings by major industry; personal income by source of income; retail sales by kind of business; and data on the number of households, their size, and their income. This information is being stored in a geographic database.

*Task 2-4 – Preliminary analyses has been done using SPSS to determine a relationship between truck volume and adjacent land use. (Population and employment data were substituted for land use). It should be noted that the truck volumes being used in this analysis are estimates from the Statewide Truck Model. Actual counts will be used in the final analysis. Correlation and regression analyses were performed for these variables. Analyses were done on a county, roadway type, and statewide basis. Using these various scenarios the correlation between truck volumes and population and employment were extremely small. Using the stepwise multiple regression technique, population and employment explained at most, 5% of the truck volume in New Jersey.*

2. Proposed activities for next quarter by task

*The work will progress faster during the next quarter, once the data entry has been completed and the databases are in place. Two new assistants are also expected to join the research team. The first one will assist in the data collection and development efforts (tasks 1 and 2), while the second one will work on the statistical analysis of the collected data (tasks 3 and 4).*

3. List of deliverables provided in this quarter by task (product date)

N/A

4. Progress on Implementation and Training Activities

N/A

5. Problems/Proposed Solutions

N/A

6. Budget Summary\*

Total Project Budget(# of years)	2 Years	\$ 198,508.00
Total Project Expenditure to date		\$66,333
% of Total Project Budget Expended		33%
Task Order Number/Study Number:		116 / 4-26855
Current Task Order Budget (# of years)	Year 1 and 2	\$ 198,508.00
Actual Expenditure to date against current task order		\$66,333
% of current task order budget expended		33%

\* These are approximate expended amounts for the project; these estimates are for reference only and should not be used for official accounting purposes. For a more accurate project accounting please review the quarterly invoice for this project.