

# Washington State Freight Truck Origin and Destination Study: Mason County



EWITS Research Report Number 21-Mason  
January 1998

by

Kathleen M. Painter

in cooperation with

Kenneth L. Casavant, EWITS Project Director  
Washington State University  
Department of Agricultural Economics  
101 Hulbert Hall  
Pullman, WA 99164-6210

## **EWITS Research Report: Background and Purpose**

This is the twenty-first in a series of Research Reports prepared from the Eastern Washington Intermodal Transportation Study (EWITS). The reports prepared as a part of this study provide information to help shape the multimodal network necessary for the efficient movement of both freight and people into the next century.

EWITS is a six-year study funded jointly by the Federal government and the Washington State Department of Transportation as a part of the Intermodal Surface Transportation Efficiency Act of 1991. Dr. Ken Casavant of Washington State University is Director of the study. A state-level Steering Committee provides overall direction pertaining to the design and implementation of the project. The Steering Committee includes Jerry Lenzi, Chair and Regional Administrator (WSDOT, Eastern Region); Richard Larson, Regional Administrator (WSDOT, South Central Region); Don Senn, Regional Administrator (WSDOT, North Central Region); Charles Howard (WSDOT, Planning Manager), and Eric Berger, Executive Director, County Road Administration Board. Pat Patterson represents the Washington State Transportation Commission on the Steering Committee. An Advisory Committee with representation from a broad range of transportation interest groups also provides guidance to the study. The following are key goals and objectives for the Eastern Washington Intermodal Transportation Study:

- *Facilitate existing regional and state-wide transportation planning efforts.*
- *Forecast future freight and passenger transportation service needs for eastern Washington.*
- *Identify gaps in eastern Washington's current transportation infrastructure.*
- *Pinpoint transportation system improvement options critical to economic competitiveness and mobility within eastern Washington.*

For additional information about the Eastern Washington Intermodal Transportation Study or this report, please contact Ken Casavant at the following address:

Ken Casavant, Project Director  
Department of Agricultural Economics  
Washington State University  
Pullman, WA 99164-6210  
(509) 335-1608

## **DISCLAIMER**

The contents of this report reflect the views of the author, who is responsible for the facts and accuracy the data presented herein. The contents do not necessarily reflect the official views or policies of the Washington State Department of Transportation or the Federal Highway Administration. This report does not constitute a standard, specification or regulation.

## **EWITS PREVIOUS REPORTS NOW AVAILABLE**

1. Gillis, William R. and Kenneth L. Casavant. "Linking Transportation System Improvements to New Business Development in Eastern Washington." EWITS Research Report Number 1. February 1994.
2. Gillis, William R. and Kenneth L. Casavant. "Lessons from Eastern Washington: State Route Mainstreets, Bypass Routes and Economic Development in Small Towns." EWITS Research Report Number 2. February 1994.
3. Gillis, William-R. and Kenneth L. Casavant. "Washington State Freight Truck Origin and Destination Study: Methods, Procedures, and Data Dictionary." EWITS Research Report Number 3. December 1994.
4. Gillis, William R. and Kenneth L. Casavant. "Major Generators of Traffic on U.S. 395 North of Spokane: Including Freight Trucks and Passenger Vehicles Crossing the International Border." EWITS Research Report Number 4. January 1995.
5. Newkirk, Jonathan, Ken Eriksen, and Kenneth L. Casavant. "Transportation Characteristics of Wheat and Barley Shipments on Haul Roads To and From Elevators in Eastern Washington." EWITS Research Report Number 5. March 1995.
6. Jessup, Eric and Kenneth L. Casavant. "A Quantitative Estimate of Eastern Washington Annual Haul Road Needs for Wheat and Barley Movement." EWITS Research Report Number 6. March 1995.
7. Gillis, William R., Emily Gruss Gillis, and Kenneth L. Casavant. "Transportation Needs of Eastern Washington Fruit, Vegetable and Hay Industries." EWITS Research Report Number 7. March 1995.
8. Casavant, Kenneth L. and William R. Gillis. "Importance of U.S. 395 Corridor For Local and Regional Commerce in South Central Washington." EWITS Research Report Number 8. April 1995.
9. Gillis, William R., Eric L. Jessup, and Kenneth L. Casavant. "Movement of Freight on Washington's Highways: A Statewide Origin and Destination Study." EWITS Report Number 9, November 1995.
10. Chase, Robert A. and Kenneth L. Casavant. "Eastern Washington Transport-Oriented Input Output Study: Technical Report." EWITS Research Report Number 10. March 1996.

11. Chase, Robert A. Kenneth L. Casavant. "The Economic Contribution of Transport Industries to Eastern Washington." EWITS Report Number 11. April 1996.
12. Lee, Nancy S. and Kenneth L. Casavant. "Waterborne Commerce on the Columbia-Snake." EWITS Report Number 12. October 1996.
13. Alderson, Lynn C., Kenneth L. Casavant and Eric Jessup. "Transportation Characteristics and Needs of Forest Products Industries Using Eastern Washington Highways: Part I Economic Structure of the Industry." EWITS Research Report Number 13. January 1997.
14. Eriksen, Ken and Kenneth L. Casavant. "Impact of North American Free Trade Agreement (NAFTA) on Washington Highways - Part 1: Commodity and Corridor Projections." EWITS Research Report Number 14. January 1997.
15. Alderson, Lynn C. and Kenneth L. Casavant. "Transportation Characteristics and Needs of Forest Products Industries Using Eastern Washington Highways: Part 2 Movement of Raw Logs." EWITS Research Report Number 15. May 1997.
16. Alderson, Lynn C. and Kenneth L. Casavant. "Transportation Characteristics and Needs of Forest Products Industries Using Eastern Washington Highways: Part 3 Shipment from Mills." EWITS Research Report Number 16. May 1997.
17. Alderson, Lynn C. and Kenneth L. Casavant. "Transportation Characteristics and Needs of Forest Products Industries Using Eastern Washington Highways: Part 4 Commercial Shipments." EWITS Research Report Number 17. February 1997.
18. Jessup, Eric L., John Ellis, and Kenneth L. Casavant. "A GIS Commodity Flow Model for Transportation Policy Analysis: A Case Study of the Impacts of a Snake River Drawdown." EWITS Research Report Number 18. May 1997.
19. Lee, Nancy S. and Kenneth L. Casavant. "A Commodity and Origin-Destination Analysis of Rail Traffic in Washington--1990-1995. EWITS Research Report Number 19. May 1997.
20. Edwards, Richard, Eric L. Jessup, and Kenneth L. Casavant. "Eastern Washington On-Farm and Commercial Grain Storage." EWITS Research Report Number 20. January 1998.

### **EWITS Previous Working Paper Series Now Available**

1. Lee, Nancy and Ken Casavant. "Grain Receipts at Columbia River Grain Terminals." EWITS Working Paper #1, March 1996.
2. Lenzi, Jerry, Eric Jessup, and Ken Casavant. "Prospective Estimates for Road Impacts in Eastern Washington from a Drawdown of the Lower Snake River." EWITS Working Paper #2, March 1996.
3. Ellis, John, Eric Jessup, and Ken Casavant. "Modeling Changes in Grain Transportation Flows in Response to Proposed Snake River Drawdowns: A Case Study for Eastern Washington." EWITS Working Paper #3, March, 1996.
4. Painter, Kate and Ken Casavant. "A Comparison of Canadian Versus All Truck Movements In Washington State With A Special Emphasis On Grain Truck Movements." EWITS Working Paper #4, March 1996.
5. Jessup, Eric L., John Ellis and Kenneth L. Casavant. "Estimating the Value of Rail Car Accessibility for Grain Shipments: A GIS Approach." EWITS Working Paper #5. April 1996.
6. Painter, Kathleen M. and Kenneth L. Casavant. "Truck Movement Characteristics on Selected Truck Routes in Washington State." EWITS Working Paper #6. August 1996.
7. Lee, Nancy S. and Kenneth L. Casavant. "Grain Receipts at Columbia River Grain Terminals, 1980-81 to 1995-96." EWITS Working Paper #7. January 1997.
8. Jessup, Eric L. and Ken Casavant. "Economic Evaluation of Grain Shipment Alternatives: A Case Study of the Coulee City and Palouse River Railroad." EWITS Working Paper #8, March 1997.

## Table of Contents

<b>Introduction</b> .....	1
<b>Method of Analysis</b> .....	2
<b>Presentation of Results</b> .....	3
<b>Mason County Results</b> .....	4

## List of Figures

Figure 1	Washington State Highways .....	6
----------	---------------------------------	---

## List of Tables

Table 1A	Survey Sites and Traffic Direction.....	1
Table 1	Daily Truck Traffic by Road for Each Season, Mason County .....	7
Table 2	Daily Truck Traffic by City of Cargo Origin for Each Season, Mason County.....	9
Table 3	Daily Truck Traffic by City of Cargo Destination for Each Season, Mason County.....	10
Table 4	Truck Traffic for Trips Originating or Ending in Mason County by Season.....	11
Table 5	Truck Trips by Commodity for Truck Traffic Originating or Ending in Mason County.....	12
Table 6	Weight Category by Commodity for Truck Loads Originating or Ending in Mason County.....	12
Table 7	Weight Category by Road for Truck Loads Originating or Ending in Mason County.....	13
Table 8	Truck Configuration by Type of Commodity Hauled, Mason County (%).	13
Table 9	Truckers' Home Base for Truck Trips Originating or Ending in Mason County.....	14

## Introduction

A large statewide survey of truck traffic origination, destination, and freight characteristics provided the data for in-depth county level reports of freight truck movement in Washington State. Considerable detail on road usage, truck weight, truck configuration, commodity type, and seasonal traffic variation is available in this survey. We were able to examine a rich set of characteristics for trucks whose freight was either destined for or originating from a particular county. It is important to note the survey does not capture truck movement that did not pass through one of 20 survey sites located on major routes throughout the state (see Table 1A for survey sites). For this reason, considerable intra- and intercounty traffic will not be included for some counties depending on their proximity to a survey site. Again, these truck characteristics reflect only the truck movements as reported at the statewide survey locations.

**Table 1A--Survey Sites and Traffic Direction**

Weigh Station	Site Number	Direction of Traffic	Road Designation
Brady West, WA	1	West	SR12
Brady East, WA	2	East	SR12
Cle Elum East, WA	3	East	I90
Cle Elum West, WA	4	West	I90
Deer Park South, WA	6	South	SR395
Douglas POE (BC Border	7	North	I5
Everett North, WA	8	North	I5
Everett South, WA	9	South	I5
Goldendale, WA	10	North/South	SR97
Kelso South, WA	11	South	I5
Othello, WA	12	All Four	SR17
Pasco, WA	13	South	SR395
Peshastin West, WA	15	West	SR2
Plymouth POE, WA	16	North	SR395
East Port Angeles Westbound, WA	17	West	SR101
Sea Tac South, WA	19	South	I5
Sea Tac North, WA	20	North	I5
East Spokane POE, WA	21	West	I90
Tokio East, WA	22	East	I90
Tokio West, WA	23	West	I90
Umatilla POE, WA	24	South	SR395
Vancouver North, WA	25	North	I5
Wallula POE, WA	26	All Four	SR12, SR395, & SR 370
Osoyoos, BC (BC Border	28	North	SR97
Oroville, WA (US Border	29	South	SR97

Information for this report was provided by an extensive study of freight truck movements on major Washington State highways conducted under the Eastern Washington Intermodal Transportation Study (EWITS). This study was the first in the United States to collect statewide freight truck origination and destination data through direct interviews of truck drivers at weigh stations. Over 300 persons conducted these personal interviews of a total of 30,000 truck drivers, providing an extensive database on freight and goods movements in Washington State.

## **Method of Analysis**

Truck traffic characteristics at the county level were analyzed for trucks whose trips either originated or ended in a particular county. Given the survey data, there was no feasible method for analyzing truck traffic that was simply passing through the county. Detailed truck traffic characteristics for each of Washington's 39 counties by season included number of trucks with freight destined for that county per day, their payload weight and commodity type; road usage, including number of trucks per day, freight weight and commodity type; and number of trucks per day, freight weight and commodity type by city of cargo origin and destination. Truck traffic was analyzed on an annual basis for the following characteristics: county road usage, average and total truck tonnage, and number of trucks by commodity; distribution of freight weight by commodity and by road; type of commodity hauled by truck configuration; and truck carriers' home base for truck trips originating or ending in that county. Truck traffic data is likely to be more accurate in terms of relative differences by road, season, etc., than actual magnitude for any one characteristic due to the nature of the survey approach.



## Presentation of Results

Detailed truck traffic characteristics are presented for Washington's 39 counties in a set of nine tables for each county. Table 1 presents information by road for truck traffic either originating or ending in that county for each season. Characteristics include total number of trucks, number of trucks with freight, average payload, and total tonnage. In addition, the percentage of loads by commodity on each road is calculated.

Tables 2 and 3 present seasonal truck traffic characteristics by city of cargo origin and city of cargo destination, respectively. For each city, the daily number of trucks, trucks with freight, their average payload weight, and total truck traffic weight are presented. Again, there is a breakdown by commodity type for each city.

Table 4 summarizes truck traffic characteristics for trucks whose trips end in that county by season. Total daily truck traffic, number of trucks with freight, average payload weight, and the total tonnage per day as well as the percentage of truckloads by commodity are presented.

Table 5 analyzes truck traffic originating or ending in that county by commodity. The number of trucks per day as well as the average and total payload by commodity is presented. In addition, truck traffic usage by road is detailed for each commodity.

Table 6 shows distribution of payload weight by commodity for truck traffic originating or ending in that county. Five weight categories in five-ton increments are used. Table 7 presents distribution of payload weight by road for truck traffic originating or ending in that county. Weight characteristics by commodity and by road are easily identified from these two tables.

Table 8 shows truck configuration by commodity for truck traffic originating or ending in that county. The percentage of trucks with freight by configuration is presented for each commodity. Table 9 presents truckers' home base by city and the number of Washington-based carriers for truck traffic originating or ending in the county.

Overall, this county-by-county disaggregation of truck movements shows the powerful impact of particular commodity movements on certain roads and during certain seasons. Farm commodities are hauled from the field to the processor or market on a seasonal basis. Lumber harvest has considerable seasonal variation as well. Construction or closures on major roads used for these purposes will need to be planned accordingly. As different industries grow or shrink, they create specific demands on the transportation infrastructure that may need to be accommodated in future transportation planning.

These results represent a summary of truck traffic origin and destination information at the county level. This information should be useful for state and county planning with respect to traffic sources, either origin or destination, and the characteristics of this traffic. It should also be valuable for planning road maintenance and construction at the county and regional level.

## Mason County Results

The main truck routes in Mason County are State Routes 101, 3 and 108 (SR101, SR3, SR108) (Table 1). Truck traffic on SR101 ranges from an average of 174 trucks per day in winter to 108 per day in fall. Lumber or wood products are the predominant freight on this route, ranging from 58% of loads in summer to 80% in fall. Truck traffic on SR3 ranges from 182 trucks per day in summer to 11 per day in fall. Freight consists mainly of lumber or wood products, although general freight and agricultural products are also important depending on the season. For SR108, truck traffic ranges from an average of 61 trucks per fall in spring to five trucks per day in summer with freight consisting mainly of lumber or wood products. The highest average payload weight of 32 tons occurs on SR108 in summer, when the freight consists of lumber or wood products.

The majority of truck traffic originating from Mason County leaves from the town of Shelton, with average daily truck traffic ranging from a high of 106 trucks per day in fall to a low of 74 trucks per day in spring (Table 2). Truck traffic from Belfair, Hoodsport, and Matlock averages 13 or less trucks per day with considerable seasonal variation. Lumber or wood products make up the majority of freight leaving Mason County, although general freight, machinery, and recycled materials are also common. Average payloads of over 25 tons occur for lumber or wood products originating from Hoodsport and Matlock in fall; Hoodsport in winter and summer; and also for machinery hauled from Belfair in summer.

Incoming truck traffic for Mason County is destined mainly for the town of Shelton, averaging from 29 trucks per day in fall to 85 per day in summer (Table 3). Kamilche, Hoodsport, and Belfair also receive small numbers of trucks with incoming freight. Freight headed for Mason County consists mainly of lumber or wood products, although metal, food, propane and machinery are also common. The highest average payload weight of 38 tons occurs for trucks carrying lumber or wood products to Kamilche in winter.

Total truck traffic heading for or leaving from Mason County ranges from 192 trucks per day in summer to 156 trucks per day in fall (Table 4). The predominant freight again is lumber or wood products, accounting for 49% to 73% of all freight across the seasons. Other common freight types include metal, machinery, and food. Average payload weights range from 22 to 25 tons across the seasons.

Table 5 shows road usage by type of freight for the major commodities hauled into or out of Mason County over the entire year. Lumber or wood products is the predominant commodity category for freight hauled into and out of Mason County, accounting for 64% of trucks with loads and 57% of total tonnage. Machinery is the next most common category of freight, accounting for 10% of the trucks with loads and 5% of total tonnage. SR101 is the most commonly used route for trucks with freight, used by 85% of trucks carrying lumber or wood products, 58% of trucks with machinery, and 70% of all other trucks with freight. SR3 is the next most commonly used truck route in the

county, particularly for freight other than lumber or wood products. The average payload weight is highest for lumber or wood products at 28 tons.

Weight category by commodity for trucks hauling freight into or out of Mason County is presented in Table 6. For trucks carrying lumber or wood products, 94% have loads weighing 20 tons or more. Of these, 106 trucks (34%) have loads weighing over 30 tons. Just 16 other trucks in the survey carry freight falling in the heaviest weight category.

Table 7 shows weight category by roadway for truckloads originating or ending in Mason County. Of the 384 surveyed trucks using SR101, 26% have payload weights of over 30 tons, and another 45% have payloads weighing between 20 and 30 tons. For the other major truck routes in Mason County, the percentage of trucks in the highest weight category is lower on SR3 at 17% and higher on SR108 at 29%.

Truck configuration for trucks carrying loads into or out of Mason County is most likely to be a tractor-trailer configuration, with 53% of trucks with loads falling in this category (Table 8). Another 22% of the trucks are a truck and trailer configuration while 12% are tractors plus two trailers. Just 13% of trucks hauling freight into or out of Mason County are straight trucks.

Over the four-day survey period (one day in each season), a total of 720 trucks, loaded and empty, were either heading for or leaving Mason County (Table 9). Of these trucks, 80% were Washington-based carriers. Shelton is home base for 18% of the surveyed carriers. Fourteen percent are based in Seattle and another 7% are based in Aberdeen.



**Table 1--Daily Truck Traffic by Road for Each Season, Mason County**

Season/ Road	Total Trucks Per Day (No.)	Loaded Trucks Per Day (No.)	Average Payload (Tons)	Total Tonnage <sup>1</sup>	Commodity	
					Category	Percent
<b>Fall:</b>						
SR101	108	68	24	1,609	Lumber, wood	72
					Metal	17
SR3	11	9	19	170	Lumber, wood	22
					General freight	55
SR108	61	55	19	1,050	Lumber, wood	79
					Trans. equipment	6
<b>Winter:</b>						
SR101	174	119	26	3,103	Lumber, wood	80
					Machinery	11
SR3	83	48	16	772	Lumber, wood	46
					Machinery	24
					Recycled materials	24
SR108	53	44	24	1,061	Lumber, wood	71
					Metal	5
<b>Spring:</b>						
SR101	130	83	22	1,832	Agriculture	5
					Lumber, wood	70
					Machinery	15
SR3	58	11	14	155	Agriculture	49
					Lumber, wood	51
SR108	50	44	24	1,048	Lumber, wood	79
					Furniture	5
					General freight	5

**Table 1--Daily Truck Traffic by Road for Each Season, Mason County (cont.)**

Season/ Road	Total Trucks Per Day (No.)	Loaded Trucks Per Day (No.)	Average Payload (Tons)	Total Tonnage <sup>1</sup>	Commodity	
					Category	Percent
Summer: SR101	169	126	25	3,157	Agriculture	5
					Propane	9
					Food	11
					Lumber, wood	58
					Electrical	10
SR3	182	145	25	3,676	Propane	8
					Food	16
					Lumber, wood	49
					Machinery	10
					Electrical	8
SR108	5	3	32	113	Lumber, wood	100

<sup>1</sup>Total tonnage may differ from the number of trucks per day multiplied by the average payload due to rounding of values for average number of loaded trucks per day and average payload.

**Table 2--Daily Truck Traffic by City of Cargo Origin for Each Season, Mason County**

Season/ Town	Total Trucks Per Day (No.)	Loaded Trucks Per Day (No.)	Average Payload (Tons)	Total Tonnage <sup>1</sup>	Commodity	
					Category	Percent
<b>Fall:</b>						
Belfair	7	5	10	51	General freight	100
Hoodsport	4	4	27	111	Lumber, wood	100
Matlock	4	4	29	117	Lumber, wood	100
Shelton	106	71	22	1,588	Lumber, wood	80
					Machinery	14
<b>Winter:</b>						
Belfair	13	11	5	57	Recycled materials	100
Hoodsport	2	2	26	51	Lumber, wood	100
Matlock	2	2	23	46	Lumber, wood	100
Shelton	102	65	22	1,411	Lumber, wood	80
					Machinery	17
<b>Spring:</b>						
Belfair	23	9	7	59	Agriculture	61
					Lumber, wood	39
Hoodsport	11	11	11	118	Machinery	100
Shelton	74	49	21	1,002	Agriculture	8
					Lumber, wood	86
<b>Summer:</b>						
Belfair	11	11	28	308	Machinery	100
Hoodsport	1	1	27	20	Lumber, wood	100
Shelton	78	65	24	1,563	Electrical	19
					Lumber, wood	77

<sup>1</sup>Total tonnage may differ from the number of trucks per day multiplied by the average payload due to rounding of values for average number of loaded trucks per day and average payload.

**Table 3--Daily Truck Traffic by City of Cargo Destination for Each Season, Mason County**

Season/ Town	Total Trucks Per Day (No.)	Loaded Trucks Per Day (No.)	Average Payload (Tons)	Total Tonnage <sup>1</sup>	Commodity	
					Category	Percent
<b>Fall:</b>						
Kamilche	1	1	25	33	Lumber, wood	100
Shelton	29	25	19	467	Agriculture	5
					Lumber, wood	32
					Metal	51
					Machinery	5
					Trans. equipment	5
<b>Winter:</b>						
Kamilche	3	2	38	59	Lumber, wood	100
Shelton	59	38	28	1,067	Agriculture	8
					Lumber, wood	91
<b>Spring:</b>						
Hoodsport	4	2	18	37	Unknown	100
Shelton	56	38	25	967	Lumber, wood	89
					Furniture	6
					Petroleum	6
<b>Summer:</b>						
Belfair	14	14	19	260	Food	87
					Agriculture	13
Shelton	85	57	28	1,604	Machinery	6
					Lumber, wood	40
					Agriculture	7
					Propane	21
					Food	24

<sup>1</sup>Total tonnage may differ from the number of trucks per day multiplied by the average payload due to rounding of values for average number of loaded trucks per day and average payload.



**Table 4--Truck Traffic for Trips Originating or Ending in Mason County by Season**

Season	Total Trucks Per Day (No.)	Loaded Trucks Per Day (No.)	Average Payload (Tons)	Total Tonnage <sup>1</sup>	Commodity	
					Category	Percent
Fall:	156	115	22	2,493	Lumber, wood	67
					Metal	11
					Machinery	10
Winter:	188	133	25	3,373	Lumber, wood	72
					Machinery	10
					Recycled materials	8
Spring:	184	109	22	2,393	Agriculture	9
					Lumber, wood	73
					Machinery	12
Summer:	192	149	25	3,781	Food	17
					Propane	8
					Lumber, wood	49
					Machinery	10
					Electrical	8

<sup>1</sup>Total tonnage may differ from the number of trucks per day multiplied by the average payload due to rounding of values for average number of loaded trucks per day and average payload.

**Table 5--Truck Trips by Commodity for Truck Traffic Originating or Ending in Mason County**

Commodity	Truck Trips	Total Weight		Avg. Payload (Tons)	County Roads Used	
	Per Year (%)	Tons	% of Total		Road	% of Trips
Lumber, wood	64	9,208	57	28	SR101	85
					SR3	31
Machinery	10	731	5	14	SR101	58
					SR3	50
					SR302	21
Other	25	6,264	39	12	SR101	70
					SR3	67
					SR302	13

**Table 6--Weight Category by Commodity for Truck Loads Originating or Ending in Mason County**

Weight Category (tons)	Agriculture		Propane		Lumber, Wood		Metal		Machinery		Recycled Mater.		Other	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
<5	6	30	0	0	8	3	14	88	0	0	0	0	24	38
5 - <10	7	5	0	0	2	1	2	13	12	23	11	100	2	3
10 - <15	0	0	0	0	5	2	0	0	26	50	0	0	7	11
15 - <20	3	15	12	100	6	2	0	0	1	2	0	0	0	0
20 - <25	4	20	0	0	62	20	0	0	2	4	0	0	2	3
25 - <30	0	0	0	0	125	40	0	0	11	21	0	0	13	20
>30	0	0	0	0	106	34	0	0	0	0	0	0	16	25
<b>Total</b>	<b>20</b>	<b>100</b>	<b>12</b>	<b>100</b>	<b>314</b>	<b>100</b>	<b>16</b>	<b>100</b>	<b>52</b>	<b>100</b>	<b>11</b>	<b>100</b>	<b>64</b>	<b>100</b>

**Table 7--Weight Category by Road for Truck Loads Originating or Ending in Mason County**

Weight Category (tons)	SR101		Road SR3		SR108	
	No.	%	No.	%	No.	%
<5	50	13	21	11	19	14
5 - <10	10	3	19	10	5	4
10 - <15	27	7	18	9	8	6
15 - <20	23	6	13	7	6	4
20 - <25	58	15	33	17	10	7
25 - <30	117	30	61	31	50	36
>30	99	26	33	17	41	29
<b>Total</b>	<b>384</b>	<b>100</b>	<b>198</b>	<b>100</b>	<b>139</b>	<b>100</b>

**Table 8--Truck Configuration by Type of Commodity Hauled, Mason County (%)**

Commodity	Truck Configuration					No. of Loads
	1	2	4	5	6	
Agricultural products	32	0	68	0	0	20
Propane	0	100	0	0	0	12
Rock, sand	0	100	0	0	0	1
Food	0	41	54	0	5	29
Lumber, wood products	0	21	59	19	0	325
Furniture	100	0	0	0	0	2
Pulp, paper	0	100	0	0	0	2
Chemicals	100	0	0	0	0	2
Petroleum products	100	0	0	0	0	6
Metal, metal products	29	0	71	0	0	16
Fabricated metal products	53	0	47	0	0	3
Machinery	47	26	27	0	0	52
Electrical equipment	100	0	0	0	0	12
Transportation equipment	100	0	0	0	0	4
Misc. manufactured goods	100	0	0	0	0	2
General freight	0	0	100	0	0	5
Recycled materials	0	0	100	0	0	11
<b>Total</b>	<b>13%</b>	<b>22%</b>	<b>53%</b>	<b>12%</b>	<b>0%</b>	<b>504</b>

Legend: 1 = straight truck, 2 = truck and trailer,  
4 = tractor and trailer, 5 = tractor and two trailers, 6 = other

**Table 9--Truckers' Home Base for Truck Trips Originating or Ending in Mason County**

	<b>Location</b>	<b>Number</b>	<b>Percent</b>
<b>By Town:</b>			
	Aberdeen	50	7
	Seattle	102	14
	Shelton	130	18
	Other	438	61
	Total	720	100
<b>Wash. State carriers:</b>		<b>577</b>	<b>80</b>