

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



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by

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in cooperation with

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## **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:

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## **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.

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## 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.

## Jefferson County Results

The main truck routes in Jefferson County are State Routes 20, 101, and 104 (SR20, SR101, and SR104) (Table 1). Truck traffic on SR20 ranges from an average of 90 trucks per day in summer to 39 per day in winter. Freight consists mainly of petroleum, pulp or paper, lumber or wood, and food, with considerable seasonal variation. Truck traffic on SR101 ranges from an average of 97 trucks per day in fall to 46 per day in winter, with freight similar to that on SR20. Truck traffic on SR104 ranges from an average of 62 trucks per day in summer to 24 per day in fall. Freight consists mainly of petroleum, chemicals, pulp or paper, and machinery. Average payload weight is highest at 28 tons in winter for this route.

The majority of truck traffic originating from Jefferson County leaves from the town of Port Townsend, with average daily truck traffic ranging from a high of 53 trucks per day in fall to a low of 22 trucks per day in winter (Table 2). Truck traffic from other towns in Jefferson County is typically less than 10 trucks per day. Lumber or wood products, pulp or paper, and food comprise the majority of freight leaving Jefferson County. Average payloads tend to be rather high due to the nature of the freight. The highest average payload of 40 tons is recorded for trucks leaving Queets in summer.

Incoming truck traffic for Jefferson County is headed for Port Townsend, with average daily truck traffic ranging from a high of 35 trucks per day in summer to a low of zero in spring (Table 3). The most common types of incoming freight destined for Port Townsend include petroleum, metal products, and general freight. The highest average payload weight of 19 tons occurs in summer.

Total truck traffic heading for or leaving from Jefferson County ranges from 116 trucks per day in summer to 62 trucks per day in winter (Table 4). The most common freight types include lumber or wood products, pulp or paper, petroleum, and food. Average payload weights are lowest in spring at 18 tons and highest in fall and winter at 22 tons.

Table 5 shows road usage by type of freight for the major commodities hauled into or out of Jefferson County over the entire year. Lumber or wood products are the predominant commodity hauled into and out of Jefferson County, accounting for 17% of trucks with loads and 42% of total tonnage. SR101 is used by all or nearly all trucks hauling lumber or wood products and petroleum in Jefferson County. SR19 and SR104 are more commonly used by trucks hauling freight other than lumber or wood and petroleum products.

Weight category by commodity for trucks hauling freight into or out of Jefferson County is presented in Table 6. For trucks carrying lumber or wood products, 90% have loads weighing 20 tons or more. Of these, 39% have loads weighing over 30 tons. Both trucks carrying pulp or paper products and trucks carrying petroleum fall into this highest weight category 19% of the time. Trucks carrying food products have relatively light payloads, with 31% weighing less than five tons.

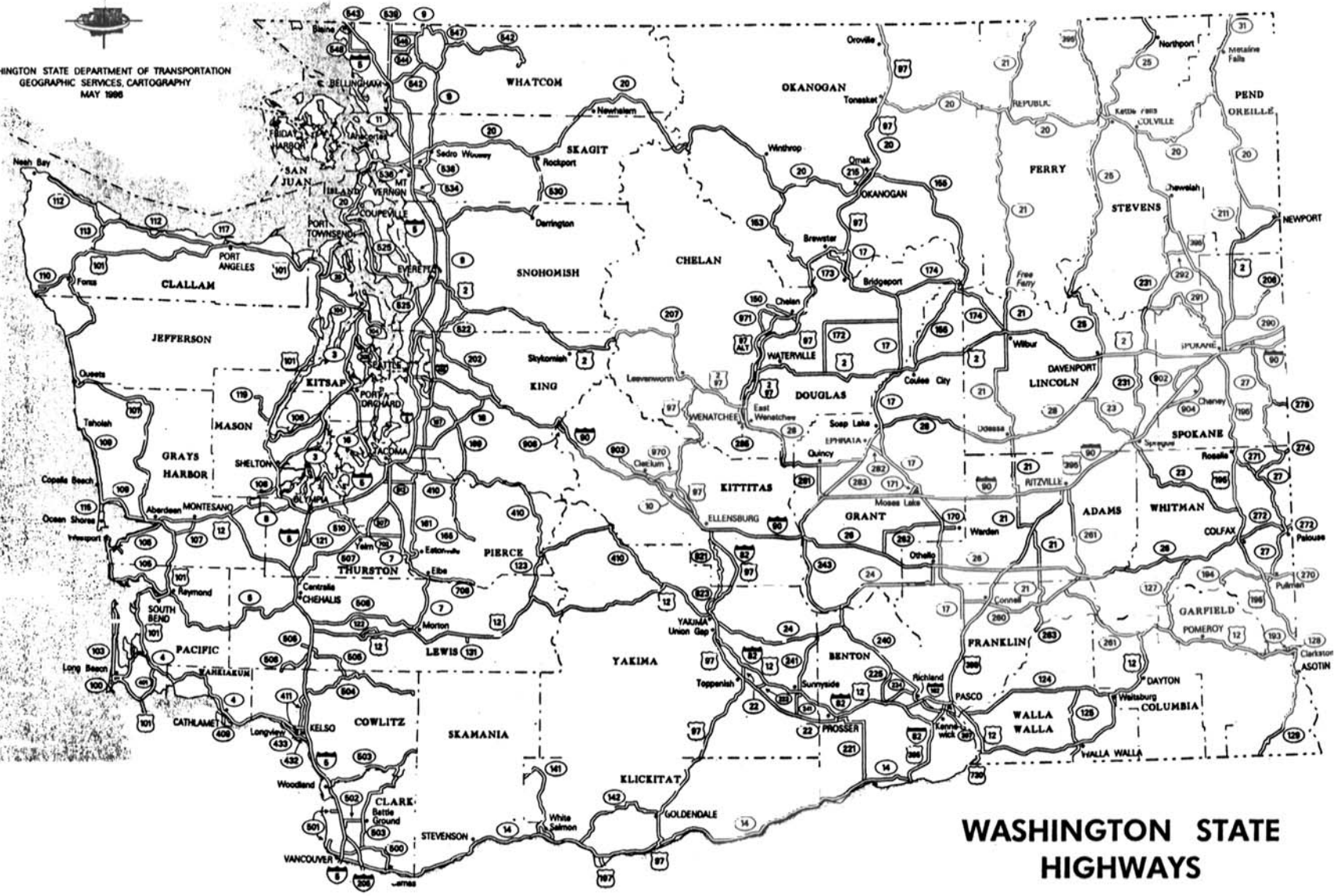
Table 7 shows weight category by roadway for truckloads originating or ending in Jefferson County. Of the 165 surveyed trucks using SR101, 27% have payload weights of over 30 tons, and 37% have payloads weighing between 20 and 30 tons. None of the trucks on SR19 fall into the highest weight class, yet 70% have payloads weighing between 20 and 25 tons. On SR104, 16% have payloads of over 30 tons.

Truck configuration for trucks carrying loads into or out of Jefferson County are most likely to be tractor and trailer configurations, with 62% of trucks with loads falling in this category (Table 8). Another 23% are truck and trailer configurations. Just 2% of trucks hauling freight are tractors plus two trailers, and 9% are straight trucks.

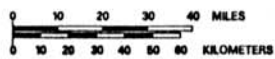
Table 9 presents the distribution of truckers' home base for truck trips originating or ending in this county. The most common base is Port Townsend, with 20% of the truck trips. Nine percent each are based in Seattle and Port Angeles. Washington-based carriers represent 74% of all truck trips in the survey for this county.



WASHINGTON STATE DEPARTMENT OF TRANSPORTATION  
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## WASHINGTON STATE HIGHWAYS



**Table 1--Daily Truck Traffic by Road for Each Season, Jefferson 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> SR20	44	25	15	376	Food	6
					Laundry	6
					Lumber, wood	18
					Pulp, paper	16
					Petroleum	53
SR101	97	63	22	1379	Laundry	5
					Lumber, wood	43
					Pulp, paper	23
					Petroleum	23
SR104	24	19	17	312	Lumber, wood	8
					Pulp, paper	21
					Petroleum	71
<b>Winter:</b> SR20	39	19	11	202	Food	16
					Pulp, paper	60
					Metal products	8
SR101	46	25	22	551	Food	12
					Lumber, wood	38
					Pulp, paper	45
					Metal products	6
SR104	33	11	28	312	Pulp, paper	100
<b>Spring:</b> SR20	51	31	12	380	Food	22
					Lumber, wood	11
					Pulp, paper	68

**Table 1--Daily Truck Traffic by Road for Each Season, Jefferson 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
<b>Spring:</b> SR101	53	33	19	623	Food	21
					Lumber, wood	43
					Pulp, paper	16
					Machinery	21
SR104	39	19	19	356	Pulp, paper	82
					Machinery	18
<b>Summer:</b> SR20	90	52	19	992	Food	13
					Lumber, wood	6
					Pulp, paper	10
					Petroleum	13
					General freight	12
SR101	93	53	22	1154	Food	30
					Lumber, wood	20
					Pulp, paper	21
					Petroleum	22
SR104	62	27	16	450	Food	11
					Chemicals	43
					Petroleum	43

<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, Jefferson 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>						
Brinnon	7	6	30	166	Lumber, wood	100
Chimacum	2	2	10	15	Food	100
Discovery Bay	3	3	26	79	Lumber, wood	100
Port Ludlow	5	5	30	135	Lumber, wood	100
Port Townsend	53	22	16	357	Lumber, wood	21
					Pulp, paper	66
Quilcene	6	6	26	163	Lumber, wood	100
<b>Winter:</b>						
Brinnon	2	2	37	74	Lumber, wood	100
Center	5	5	21	110	Food	100
Chimacum	3	3	33	99	Lumber, wood	100
Port Townsend	22	17	138	2393	Food	17
					Lumber, wood	17
					Pulp, paper	65
<b>Spring:</b>						
Center	3	3	15	50	Machinery	100
Chimacum	3	3	3	8	Food	100
Port Townsend	47	28	14	393	Food	12
					Lumber, wood	12
					Pulp, paper	76
Queets	11	11	31	326	Lumber, wood	100
Quilcene	3	3	13	42	Machinery	100
<b>Summer:</b>						
Discovery Bay	3	2	30	67	Lumber, wood	100
Port Ludlow	3	2	10	19	Food	64
					Lumber, wood	36

**Table 2--Daily Truck Traffic by City of Cargo Origin for Each Season, Jefferson County (cont.)**

Season/ Town	Total Trucks Per Day (No.)	Loaded Trucks Per Day (No.)	Average Payload (Tons)	Total Tonnage <sup>1</sup>	Commodity	
					Category	Percent
<b>Summer:</b>						
Port Townsend	48	23	17	405	Pulp, paper	39
					Food	42
Queets	3	3	40	141	Lumber, wood	50
					Pulp, paper	50
Quilcene	4	4	31	108	Lumber, wood	62

<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, Jefferson 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>						
Port Townsend	15	15	6	92	Petroleum	100
<b>Winter:</b>						
Port Townsend	24	2	5	7	Metal products	100
<b>Spring:</b>						
No trucks with freight in survey.						
<b>Summer:</b>						
Port Townsend	35	23	19	426	Petroleum	51
					General freight	49

<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 Jefferson 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
<b>Fall:</b>	97	64	22	1386	Petroleum	23
					Laundry	5
					Lumber, wood	43
					Pulp, paper	23
<b>Winter:</b>	62	31	22	661	Food	27
					Lumber, wood	31
					Pulp, paper	37
					Metal products	5
<b>Spring:</b>	75	54	18	976	Food	12
					Lumber, wood	26
					Pulp, paper	39
					Chemicals	10
					Machinery	12
<b>Summer:</b>	116	76	21	1614	Food	21
					Lumber, wood	14
					Pulp, paper	14
					Chemicals	16
					Petroleum	16
					General freight	15

<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 Jefferson County**

Commodity	Truck Trips	Total Weight		Avg. Payload (Tons)	County Roads Used	
	Per Year (%)	Tons	% of Total		Road	% of Trips
Lumber, wood	17	1695	42	28	SR101	99
Food	9	315	8	10	SR101	85
					SR19	24
					SR104	9
Petroleum	8	392	10	15	SR101	100
Other	65	1621	40	16	SR101	57
					SR19	28
					SR104	45

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

Weight Category (tons)	Commodity									
	Food		Lumber, Wood		Pulp, Paper		Petroleum		Other	
	No. of Loads	% of Total	No. of Loads	% of Total	No. of Loads	% of Total	No. of Loads	% of Total	No. of Loads	% of Total
<5	10	31	5	9	0	0	0	0	146	72
5 - <10	5	16	0	0	0	0	15	0	16	8
10 - <15	2	6	1	2	0	0	0	0	6	3
15 - <20	0	0	0	0	9	16	0	16	5	2
20 - <25	14	44	6	11	26	46	0	46	18	9
25 - <30	1	3	23	40	11	19	0	19	2	1
>30	0	0	22	39	11	19	12	19	11	5
<b>Total</b>	<b>32</b>	<b>100</b>	<b>45</b>	<b>100</b>	<b>57</b>	<b>100</b>	<b>27</b>	<b>100</b>	<b>204</b>	<b>100</b>

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

Weight Category (tons)	SR101		Road SR19		SR104	
	Number	%	Number	%	Number	%
<5	20	12	6	15	2	3
5 - <10	20	12	0	0	15	19
10 - <15	6	4	2	5	0	0
15 - <20	14	8	2	5	13	17
20 - <25	25	15	28	70	22	29
25 - <30	36	22	2	5	13	17
>=30	44	27	0	0	12	16
<b>Total</b>	<b>165</b>	<b>100</b>	<b>48</b>	<b>100</b>	<b>77</b>	<b>100</b>

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

Commodity	Truck Configuration					No. of Loads
	1	2	3	4	5	
Propane	100	0	0	0	0	1
Food	43	10	0	47	0	33
Laundry, misc. apparel	100	0	0	0	0	3
Lumber & wood products	0	30	1	65	3	61
Pulp & paper	0	9	0	91	0	58
Chemicals	0	69	0	0	0	17
Petroleum products	6	45	0	50	0	27
Metal, metal products	0	0	0	100	0	2
Fabricated metal products	0	0	0	100	0	2
Machinery	0	0	0	50	50	7
General freight	0	0	0	100	0	11
Mail & packages	100	0	0	0	0	1
Recycled materials	0	100	0	0	0	1
<b>Total</b>	<b>9%</b>	<b>23%</b>	<b>0%</b>	<b>62%</b>	<b>2%</b>	<b>222</b>

Legend: 1 = straight truck, 2 = truck and trailer, 3 = tractor only  
 4 = tractor and trailer, 5 = tractor and two trailers

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

Location	Number	Percent
<b>By Town:</b>		
Port Townsend	70	20
Seattle	33	9
Port Angeles	30	9
Eugene, OR	22	6
Other	194	56
Total	349	100
<b>Wash. State carriers:</b>	259	74