

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



EWITS Research Report Number 21-Whitman  
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>Whitman 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, Whitman County .....	7
Table 2	Daily Truck Traffic by City of Cargo Origin for Each Season, Whitman County .....	9
Table 3	Daily Truck Traffic by City of Cargo Destination for Each Season, Whitman County .....	10
Table 4	Truck Traffic for Trips Originating or Ending in Whitman County by Season.....	11
Table 5	Truck Trips by Commodity for Truck Traffic Originating or Ending in Whitman County .....	12
Table 6	Weight Category by Commodity for Truck Loads Originating or Ending in Whitman County .....	12
Table 7	Weight Category by Road for Truck Loads Originating or Ending in Whitman County .....	13
Table 8	Truck Configuration by Type of Commodity Hauled, Whitman County (%). .....	13
Table 9	Truckers' Home Base for Truck Trips Originating or Ending in Whitman County .....	13

## 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.

## Whitman County Results

Whitman County is located in a highly productive dryland grain region in southeastern Washington State. The main truck routes are State Routes 195, 26, and 27 (SR195, SR26, and SR27) (Table 1). Agricultural products are generally the predominant freight on all routes. Solid waste, chemicals, and furniture are also common freight types. Average daily truck traffic fluctuates considerably by season and by route for SR195 and SR26. Truck traffic on SR195 ranges from an average of 59 trucks per day in winter to 15 per day in summer. On SR26, truck traffic ranges from a high of 64 trucks per day in winter to a low of 16 trucks per day in summer. SR27 averaged from 13 to 21 trucks per day across the seasons.

The town of Pullman is the population center in this county, so the majority of truck traffic destined for Whitman County goes to service this population. Trucks destined for Pullman range from an average of 9 to 23 per day across the seasons, and carry food, machinery, metal, glass or cement, and rubber or plastic products. Colfax dominates as city of cargo origin in fall, winter, and summer due to movement of solid waste from the county landfill. Pullman has the next highest truck traffic levels, averaging from 5 to 17 incoming trucks per day. Furniture, lumber or wood products, solid waste, and general freight comprise the freight types for cargo originating from Pullman. Overall, the total number of trucks per day originating from or destined to towns in this county is fairly small, averaging less than 20 in all except one case.

Total truck traffic heading for or leaving from Whitman County ranges from an average of 36 trucks per day in summer to 91 trucks per day in winter (Table 4). Agricultural products make up 39% of the freight in fall, but just 9% and 11% in winter and spring, respectively, and none of the freight in summer, according to our survey. Other important freight categories across the seasons include food, solid waste, furniture, chemicals and fiberglass. Average payloads range from 17 to 20 tons by season, with the heaviest average payload occurring in winter.

Table 5 shows road usage by type of freight for the major commodities hauled into or out of Whitman County over the entire year. Agriculture is the largest category of truck freight, making up 21% of the trucks with loads originating or ending in Whitman County and accounting for 25% of the total tonnage. Agricultural products are hauled on all three truck routes, SR26, SR27, and SR195, with equal likelihood. Solid waste, the next most common category of freight (hauled by 13% of trucks with loads) is carried on SR26 by all of the trucks in the survey, as well as on SR27 by an additional 21%. Chemicals and food products are the next most commonly hauled freight in Whitman County, hauled by 12% and 10%, respectively, of the trucks originating for or destined to Whitman County.

Weight category by commodity for trucks hauling freight into or out of Whitman County is presented in Table 6. For trucks carrying agricultural products, 86% have loads weighing 20 tons or more. Of these, 30% have loads weighing over 30 tons. Sixty percent of the trucks carrying food products have payloads in the 20- to 25-ton

category, and none weigh more than 25 tons. Over three fourths of the trucks carrying chemicals are in the 20- to 25-ton weight category. Trucks carrying solid waste generally weigh between 20 and 25 tons.

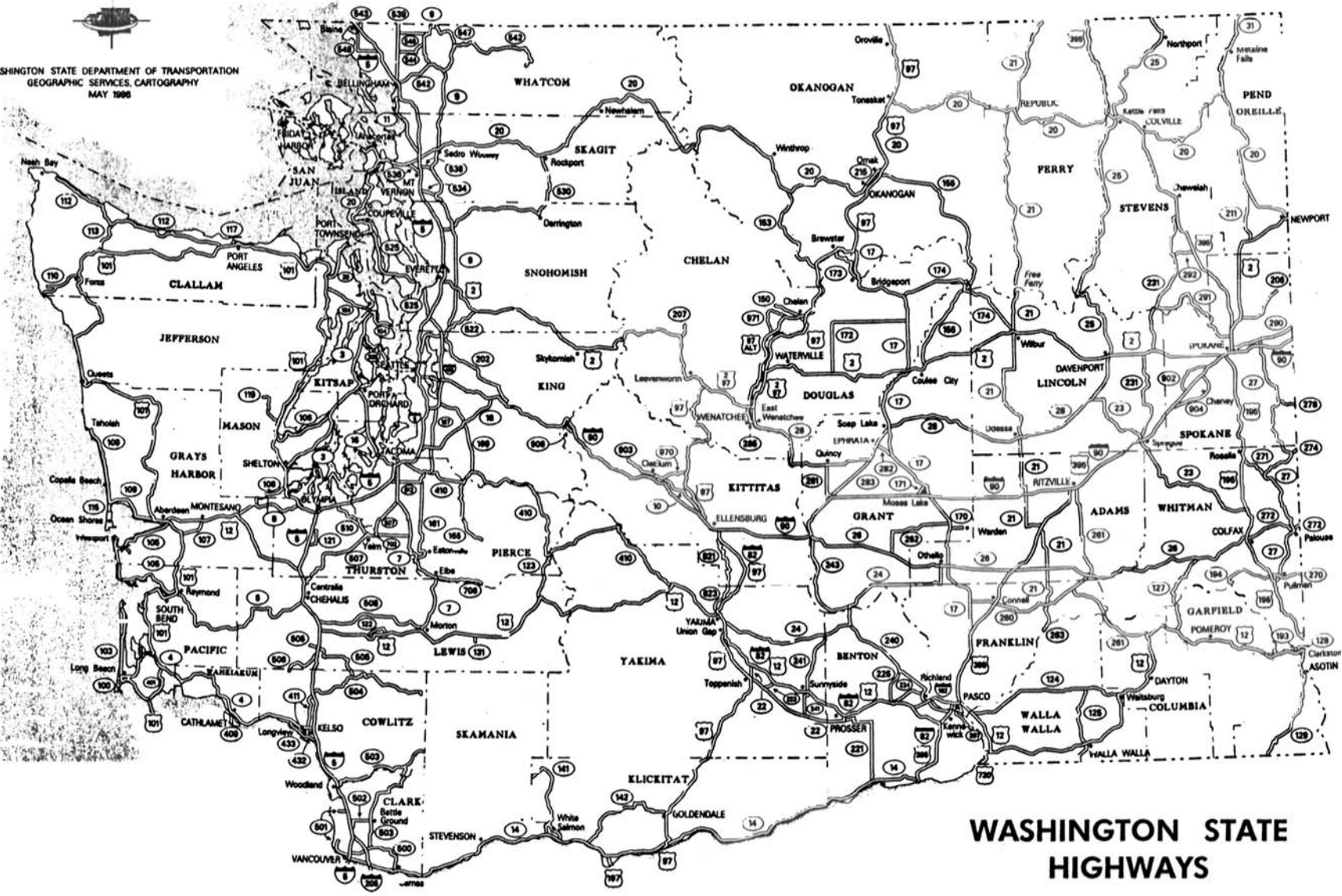
Table 7 shows weight category by roadway for truckloads originating or ending in Whitman County. Of the 112 surveyed trucks using SR26, 48% have payload weights in the 20- to 25-ton category, and just 5% have payloads weighing 30 tons or more. The percentage of trucks carrying freight weighing over 30 tons is higher for the other two routes in Table 7, with 12% of the loaded trucks falling in this category on SR195 and 38% on SR27.

Truck configuration for trucks carrying loads into or out of Whitman County are most likely to be tractor-trailer configurations, with 56% of trucks with loads falling in this category (Table 8). Another 26% are tractors with two trailers. Ten percent of trucks hauling freight are truck and trailer configurations, and 7% are straight trucks.

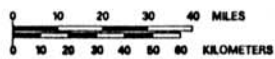
Over a four-day survey period (one day in each season), a total of 266 trucks, loaded or empty, were either heading for or leaving Whitman County (Table 9). Of these trucks, 69% were Washington-based carriers. Ellensburg, Portland, Oregon, and Spokane each serve as home base for 6% of the surveyed carriers. Five percent are based in Colfax.



WASHINGTON STATE DEPARTMENT OF TRANSPORTATION  
GEOGRAPHIC SERVICES, CARTOGRAPHY  
MAY 1996



# WASHINGTON STATE HIGHWAYS



**Table 1--Daily Truck Traffic by Road for Each Season, Whitman 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> SR195	25	19	18	346	Agriculture	49					
					Food	18					
					Furniture	7					
SR26	46	32	18	578	Machinery	26					
					Agriculture	27					
					Livestock	14					
					Food	27					
					Machinery	16					
SR27	13	13	26	345	Solid waste	17					
					Agriculture	73					
					Food	27					
<b>Winter:</b> SR195	59	37	21	769	Agriculture	14					
					Landscaping	14					
					Food	8					
					Furniture	24					
					Chemicals	8					
					Glass, cement	14					
					Metal	15					
					SR26	64	38	16	628	Food	8
										Furniture	23
										Chemicals	21
Leather goods	14										
Glass, cement	13										
SR27	16	12	29	344	Solid waste	21					
					Landscaping	43					
					Lumber, wood	13					
					Leather goods	44					

**Table 1--Daily Truck Traffic by Road for Each Season, Whitman 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> SR195	33	23	8	262	Fiberglass	45
					Furniture	26
					Chemicals	23
SR26	47	38	21	817	Agriculture	15
					Food	21
					Furniture	16
					Chemicals	27
					Solid waste	14
SR27	21	12	19	394	Agriculture	47
					Lumber, wood	10
					Solid waste	43
<b>Summer:</b> SR195	15	15	14	213	Food	21
					Lumber, wood	21
					Rubber, plastic	28
					General freight	31
SR26	16	13	18	225	Rubber, plastic	34
					Solid waste	66
SR27	15	15	14	213	Food	21
					Lumber, wood	21
					Rubber, plastic	28
					General freight	31

<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, Whitman 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>						
Belmont	10	10	28	270	Agriculture	100
Colfax	15	10	21	205	Agriculture	45
					Solid waste	55
Colton	11	11	19	213	Rubber, plastic	100
Ewan	4	4	23	99	Livestock	100
Pullman	7	7	2	12	Lumber, wood	80
					Furniture	20
<b>Winter:</b>						
Colfax	12	8	14	110	Solid waste	100
Colton	7	7	21	153	Chemicals	100
La Crosse	4	4	22	77	Food	100
Palouse	5	5	23	117	Leather goods	100
Pullman	14	9	6	49	Furniture	100
Rosalia	5	5	7	37	Agriculture	100
<b>Spring:</b>						
Albion	10	10	0	3	Textiles	100
Colfax	5	0	0	0	Empty	100
Palouse	12	12	29	346	Agriculture	100
Pullman	17	11	24	274	Furniture	54
					Solid waste	46
Rosalia	5	5	7	37	Chemicals	100
<b>Summer:</b>						
Colfax	9	9	22	186	Solid waste	100
Colton	3	3	16	52	Glass, cement	100
La Crosse	5	5	23	126	Food	100
Pullman	5	5	12	55	General freight	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 3--Daily Truck Traffic by City of Cargo Destination for Each Season, Whitman 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>						
La Crosse	2	2	24	37	Lumber, wood	100
Pullman	9	9	16	135	Food	41
					Machinery	59
Rosalia	5	5	33	174	Agriculture	100
<b>Winter:</b>						
La Crosse	1	1	3	3	Agriculture	100
Pullman	23	18	26	467	Food	17
					Lumber, wood	8
					Chemicals	17
					Glass, cement	28
					Metal	30
Rosalia	5	5	31	157	Landscaping	100
<b>Spring:</b>						
Colfax	11	0	0	0	Empty	100
La Crosse	5	5	20	102	Chemicals	100
Pullman	10	7	11	72	Food	81
					Lumber, wood	19
Winona	5	5	24	128	Lumber, wood	100
<b>Summer:</b>						
Albion	4	4	37	159	Petroleum	100
Colton	9	9	32	291	Glass, cement	100
Pullman	11	11	15	156	Rubber, plastic	40
					Food	30
					Lumber, wood	30
St. John	3	3	20	70	Chemicals	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 4--Truck Traffic for Trips Originating or Ending in Whitman 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>	64	49	18	880	Agriculture	39					
					Livestock	9					
					Food	18					
					Lumber, wood	11					
					Machinery	10					
					Solid waste	11					
<b>Winter:</b>	91	55	20	1,094	Agriculture	9					
					Landscaping	9					
					Food	5					
					Furniture	16					
					Chemicals	15					
					Leather goods	9					
					Glass, cement	9					
					Metal	10					
					Solid waste	15					
					<b>Spring:</b>	74	50	17	842	Agriculture	11
										Food	11
										Lumber, wood	13
Furniture	12										
Chemicals	21										
Fiberglass	22										
<b>Summer:</b>	36	33	18	142	Solid waste	11					
					Food	26					
					Lumber, wood	10					
					Chemicals	11					
					Rubber, plastic	13					
					General freight	14					
	Solid waste	26									

<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 Whitman County**

Commodity	Truck Trips	Total Weight		Avg. Payload (Tons)	County Roads Used	
	Per Year (%)	Tons	% of Total		Road	% of Trips
Food	10	92	11	18	SR195	55
					SR26	68
					SR27	21
Chemicals	12	89	11	13	SR195	9
					SR26	11
					SR27	7
Agriculture	21	210	25	26	SR195	27
					SR26	27
					SR27	27
Solid Waste	13	116	14	19	SR26	100
					SR27	21
Other	58	7,802	60	18	SR195	79
					SR26	19
					SR27	6

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

Weight Category (tons)	Agriculture		Food		Chemicals		Solid Waste		Other	
	No.	%	No.	%	No.	%	No.	%	No.	%
<5	0	0	0	0	0	0	4	16	22	25
5 - <10	0	0	5	25	5	22	0	0	13	15
10 - <15	0	0	0	0	0	0	0	0	8	9
15 - <20	5	14	3	15	0	0	0	0	0	0
20 - <25	9	24	12	60	19	78	18	69	16	18
25 - <30	12	32	0	0	0	0	5	19	10	12
>30	11	30	0	0	0	0	0	0	20	22
<b>Total</b>	<b>32</b>	<b>100</b>	<b>20</b>	<b>100</b>	<b>24</b>	<b>100</b>	<b>27</b>	<b>100</b>	<b>89</b>	<b>100</b>

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

Weight Category (tons)	SR195		Road SR26		SR27	
	No.	%	No.	%	No.	%
<5	17	17	10	9	0	0
5 - <10	18	18	23	21	0	0
10 - <15	8	8	0	0	0	0
15 - <20	8	8	3	3	0	0
20 - <25	20	20	54	48	8	62
25 - <30	17	17	16	14	0	0
>=30	12	12	6	5	5	38
<b>Total</b>	<b>100</b>	<b>100</b>	<b>112</b>	<b>100</b>	<b>13</b>	<b>100</b>

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

Commodity	Truck Configuration				Total Loads
	1	2	4	5	
Agriculture	0	0	36	64	42
Livestock	0	0	100	0	4
Landscaping	0	0	100	0	5
Food	0	43	40	18	20
Textiles	0	0	100	0	10
Lumber, wood	0	53	32	15	10
Furniture	32	8	60	0	16
Chemicals	22	0	78	0	24
Petroleum	0	0	100	0	4
Rubber, plastic	100	0	0	0	4
Leather goods	0	0	0	100	5
Glass, cement	0	0	0	100	9
Metal	0	0	0	100	5
Machinery	0	0	100	0	5
General freight	0	100	0	0	5
Solid waste	0	0	100	0	27
<b>Total</b>	<b>7%</b>	<b>10%</b>	<b>56%</b>	<b>26%</b>	<b>198</b>

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

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

Location	Number	Percent
<b>By Town:</b>		
Ellensburg	17	6
Portland, OR	16	6
Spokane	15	6
Colfax	14	5
Other	204	77
Total	266	100
<b>Wash. State carriers:</b>	<b>183</b>	<b>69</b>