



Strategic Freight Transportation Analysis

Presentation
To

SFTA Steering Committee

O&D Data Results: FREIGHT VALUE!

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O & D Data.... Results

- ✓ Traffic Increase
- ✓ Total and Average Value of Freight Payload for Selected Highways
- ✓ Who's involved with SFTA ?
 - Steering and Advisory Committee
- ✓ SFTA Studies and Work Tasks
- ✓ SFTA Data and Examples of Results.



O-D Study Results

	<i>I-5</i>	<i>I-90</i>	<i>US 97</i>	<i>US 395</i>
1993	5,715	1,613	248	1,186
2002	10,990	2,743	594	2,647
% Change	93%	70%	140%	123%

Average Payload Weight

Tons

	<u>I-5</u>	<u>I-90</u>	<u>US-97</u>	<u>US-395</u>
1993	15.3	16.9	17.7	19.2
2002	18.0	19.0	19.3	19.4
% Change	18%	13%	9%	1%

Freight Value by Highway

	1993		2003	
	<u>Total Daily Payload (tons)</u>	<u>Total Value of Payload</u>	<u>Total Daily Payload (tons)</u>	<u>Total Value of Payload</u>
I-5	33,574	\$82,355,552	65,886	\$148,902,983
I-90	15,525	\$39,427,875	26,929	\$76,944,960
US 395	12,502	\$25,012,305	19,708	\$36,995,578
US 97	2,349	\$3,328,050	7,909	\$12,033,411
SR 26	8,192	\$11,558,919	11,328	\$13,466,514
US 101	2,842	\$3,898,715	9,086	\$16,089,723
US 12	7,824	\$11,332,382	17,660	\$23,685,525

Freight Value by Truck Configuration

	<u>1993</u>		<u>2003</u>	
	<u>Average Payload (Tons)</u>	<u>Average Payload Value</u>	<u>Average Payload (Tons)</u>	<u>Average Payload Value</u>
Straight Truck	5.6	\$26,334	7.7	\$18,807
Straight Truck & Trailer	17.6	\$36,633	20.6	\$46,064
Tractor and Trailer	17.5	\$36,803	19.6	\$44,633
Tractor and Two Trailers	21.9	\$24,971	26.1	\$27,773
Other	16	\$34,109	17	\$67,817

Freight Value by Origin Facility Type

Origin Facility	<u>1993</u>		<u>2003</u>	
	<u>Average Payload (Tons)</u>	<u>Average Payload Value</u>	<u>Average Payload (Tons)</u>	<u>Average Payload Value</u>
Truck Terminal	14.9	\$35,838	18.4	\$43,710
Rail Terminal	17.7	\$43,640	20.1	\$65,806
Marine Terminal	18.5	\$34,690	19.9	\$65,254
Air Terminal	6.1	\$43,392	11.1	\$95,546
Factory	19.2	\$33,337	21.3	\$41,812
Warehouse/Dist.	15.2	\$31,997	18.1	\$40,036
Farm	19.8	\$13,113	24.7	\$18,653
Point of Sale	9.7	\$35,250	14.0	\$46,826
Other	14.9	\$35,372	19.1	\$44,631

Freight Value by Destination Facility Type

Destination Facility	1993		2003	
	<u>Average Payload (Tons)</u>	<u>Average Payload Value</u>	<u>Average Payload (Tons)</u>	<u>Average Payload Value</u>
Truck Terminal	14.3	\$33,734	18.1	\$39,176
Rail Terminal	18.1	\$33,012	22.4	\$33,793
Marine Terminal	18.6	\$28,184	23.1	\$34,281
Air Terminal	9.2	\$52,619	14.3	\$117,260
Factory	20.7	\$37,121	24.4	\$34,923
Warehouse/Dist.	16.5	\$31,406	19.2	\$40,343
Farm	18.1	\$24,902	22.2	\$20,353
Point of Sale	14.2	\$33,833	16.1	\$45,320
Other	15.1	\$53,337	15.8	\$59,765

Top Ten Origin Cities by Freight Value, 1993

Rank	Origin City	Origin State/ Province	Average Daily Tons	Total Daily Value (\$)
1	Seattle	WA	24,648	\$53,618,716
2	Portland	OR	20,644	\$39,870,716
3	Spokane	WA	11,844	\$28,353,969
4	Tacoma	WA	14,291	\$24,557,998
5	Kent	WA	7,657	\$21,572,426
6	Everett	WA	2,715	\$11,735,447
7	Auburn	WA	3,084	\$10,250,118
8	Yakima	WA	9,024	\$9,738,654
9	Wenatchee	WA	6,774	\$7,722,917
10	Aberdeen	WA	6,038	\$5,565,435

Top Ten Origin Cities by Freight Value, 2003

Rank	Origin City	Origin State/ Province	Average Daily Tons	Total Daily Value (\$)
1	Tacoma	Washington	47,788	\$133,049,549
2	Seattle	Washington	52,064	\$121,614,201
3	Portland	Oregon	38,134	\$109,711,227
4	Kent	Washington	20,696	\$74,444,313
5	Everett	Washington	19,509	\$63,124,563
6	Spokane	Washington	18,910	\$36,087,375
7	Auburn	Washington	9,978	\$29,763,701
8	Vancouver	British Columbia	9,373	\$22,064,860
9	Vancouver	Washington	9,292	\$18,977,422
10	Sumner	Washington	5,903	\$18,458,968

Top Ten Destination Cities by Freight Value, 1993

Rank	Destination City	Destination State/ Province	Average Daily Tons	Total Daily Value (\$)
1	Seattle	WA	26,511	\$55,521,588
2	Spokane	WA	21,771	\$38,466,545
3	Portland	OR	16,579	\$33,780,678
4	Tacoma	WA	16,031	\$24,486,538
5	Kent	WA	8,811	\$22,527,088
6	Vancouver	BC	13,601	\$20,921,288
7	Everett	WA	3,973	\$19,236,511
8	Yakima	WA	7,711	\$10,264,547
9	Auburn	WA	3,194	\$9,426,662
10	Pasco	WA	5,629	\$7,881,306

Top Ten Destination Cities by Freight Value, 2003

Rank	Destination City	Destination State/ Province	Average Daily Tons	Total Daily Value (\$)
1	Seattle	Washington	64,821	\$186,570,549
2	Tacoma	Washington	62,617	\$112,542,430
3	Kent	Washington	28,258	\$85,761,864
4	Portland	Oregon	29,035	\$65,645,582
5	Spokane	Washington	26,402	\$63,405,549
6	Auburn	Washington	9,821	\$48,744,264
7	Renton	Washington	6,585	\$47,006,889
8	Vancouver	British Columbia	18,202	\$41,030,788
9	Fife	Washington	6,620	\$39,099,455
10	Everett	Washington	9,401	\$35,815,151

Data Request and Inquiries

Examples

- | <u>Agency</u> | <u>Purpose</u> |
|--|--|
| 1. U.S. DOT | <ul style="list-style-type: none"> Used in "The West Coast Corridor System" Phase I report, funded as part of the Borders and Corridors budget of USDOT. The analysis and data were used to confirm and in some cases to establish levels of freight activity within the corridor system. |
| 2. Benton-Franklin Council of Governments | <ul style="list-style-type: none"> Requested for use in RTPO's and MPO's planning. |
| 3. Washington Wheat Commission | <ul style="list-style-type: none"> Utilized to evaluate industry changes and transportation shifts over the last 10 years. |
| 4. Transportation Ministry, Seoul, Korea | <ul style="list-style-type: none"> Methodological information was requested to help in the development of freight collection techniques for Seoul, Korea. |
| 5. Oregon Department of Transportation | <ul style="list-style-type: none"> SFTA methodology incorporated into the development of an urban and metropolitan freight data collection technique. |
| 6. City of Reardan, Washington | <ul style="list-style-type: none"> Utilized to compare and contrast changes in freight flows, by vehicle type and commodity, between 1994 and 2002. |

Data Request and Inquiries

Examples

<u>Agency</u>	<u>Purpose</u>
7. Freight Strategy and Planning: WSDOT	<ul style="list-style-type: none">• Provide data for use in reports, presentations and freight policy plans.• Address private citizen concerns regarding freight traffic and safety issues.
8. Planning and Data Offices: WSDOT	<ul style="list-style-type: none">• WSDOT Planning and Data offices are developing a planning data depository where multiple types of data will be stored.
9. Cambridge Systematics	<ul style="list-style-type: none">• Development of survey design and sample frame for Port of Portland for freight data collection.
10. WSDOT / WSP	<ul style="list-style-type: none">• The data are being utilized to develop and design a process for locating future weigh-stations and weigh-in-motion locations based upon freight vehicle frequencies, truck type, commodity, etc.
11. Puget Sound Regional Council	<ul style="list-style-type: none">• Utilized to validate truck travel demand models used by the MPO.
12. City of Lind, Washington	<ul style="list-style-type: none">• Used by consultants hired by the City of Lind, WA to profile changing freight truck travel through town.
13. Texas Transportation Institute	<ul style="list-style-type: none">• Used in designing statewide origin and destination freight study for Texas.

