

Reporting Commodity Flows on Oregon Highways

TRB National Planning Applications Conference
Performance Measures Lightning Presentations

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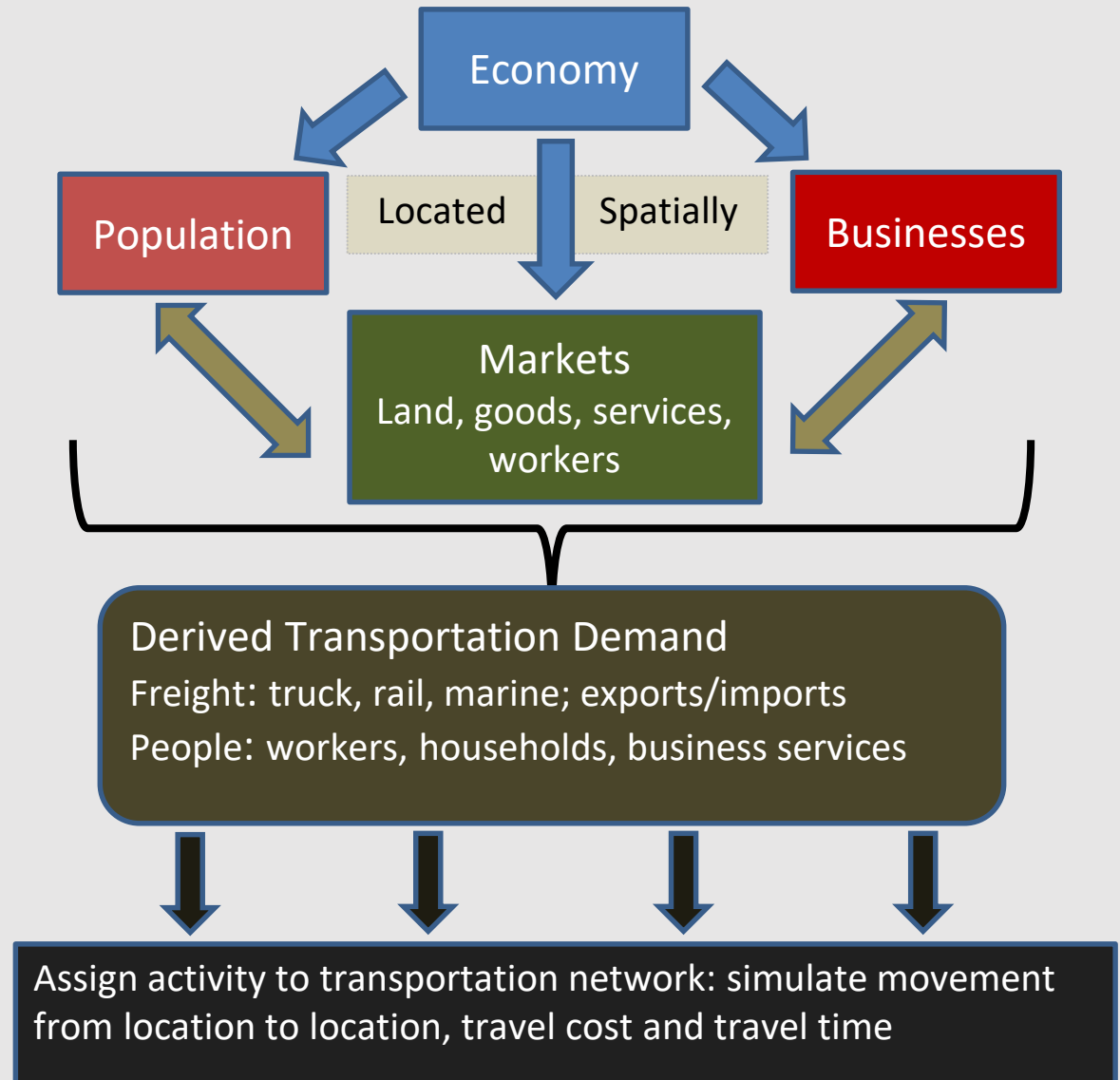
Lightning Overview

- Should you ever *SWIM* in a Lightning Storm?
- Examples of SWIMing for Flow Data



SWIM TLUMIP

Oregon Statewide Integrated Model
Transportation Land Use Modeling Improvement Program



<https://github.com/tlumip/tlumip/wiki>

Common Applications / Uses



Big Policy Analysis

Statewide economic impacts of funding and policy packages.



Resiliency

How travelers are impacted when routes are closed (planned or not).



Rural Applications

Providing some information for rural areas with no other model.



Commodity Flow

Providing information about dollars and tons using the system, not just cars and trucks.

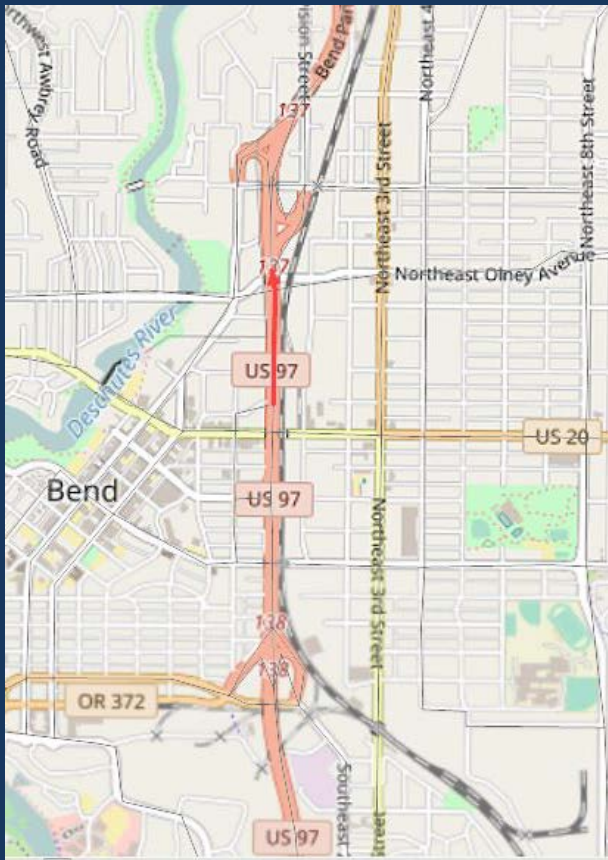
<https://github.com/tlumip/tlumip/wiki/Applications>



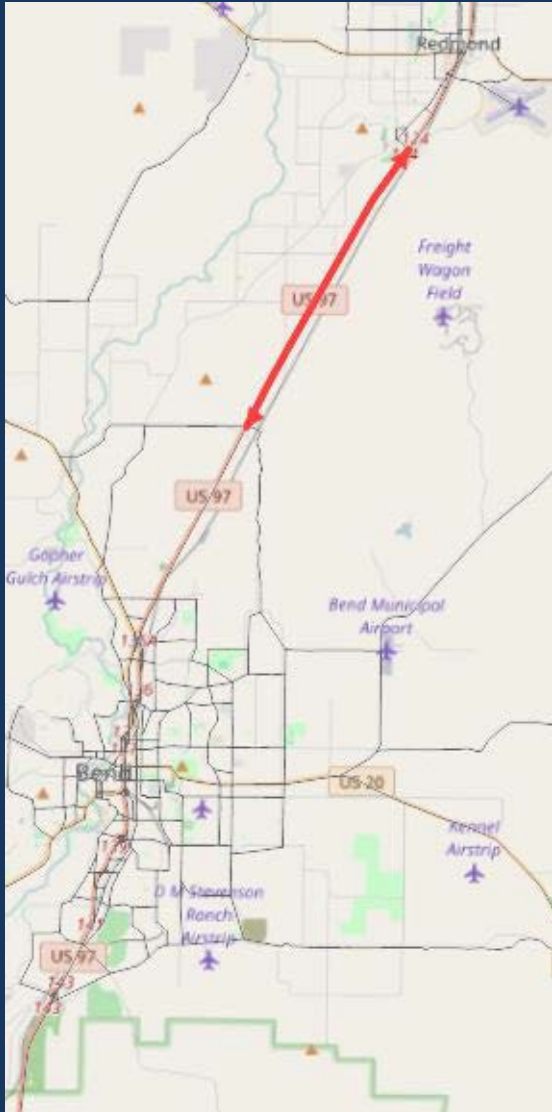
Commodity flow examples throughout Oregon

origin	tripStartTime	destination	tourMode	tripMode	truckID	truckType	sctg2	value	tons	dataset	EXTERNAL_ZONE_ORIGIN	EXTERNAL_ZONE_DESTINATION	SELECT_LINK_PERCENT	HOME_ZONE
2121	1546	2961	Internal	loaded	112588	SU	26	3173	14.9	faf	_1E	2961	1	2121
2121	521	5010	Outbound	empty	112594	CS	24	0	0	faf	_1E	5010	1	2121
2125	1139	1734	Internal	loaded	112619	SU	6	4592	5.7	faf	_1E	1734	1	2125
2125	1032	1802	Internal	loaded	112620	TT	7	11018	14.1	faf	_1E	1802	1	2125
2125	116	2690	Internal	loaded	112704	SU	2	6723	27.2	faf	_1E	2690	1	2125
2127	1909	2701	Internal	empty	112794	CS	4	0	0	faf	_1E	2701	1	2127
2127	1009	2918	Internal	loaded	112796	SU	31	2016	32.1	faf	_1E	2918	1	2127
2127	1118	5010	Outbound	empty	112803	CS	26	0	0	faf	_1E	5010	1	2127
2127	441	5010	Outbound	loaded	112804	CS	41	187	10.9	faf	_1E	5010	1	2127
2129	1310	1728	Internal	empty	112826	SU	25	0	0	faf	_1E	1728	1	2129
2129	812	1818	Internal	empty	112827	SU	19	0	0	faf	_1E	1818	1	2129
2129	904	2624	Internal	loaded	112916	SU	25	671	22.7	faf	_1E	2624	1	2129
2129	1755	2776	Internal	loaded	112922	CS	18	23153	25.4	faf	_1E	2776	1	2129
2129	1650	2930	Internal	loaded	112924	TT	8	19276	17.9	faf	_1E	2930	1	2129
2129	659	2953	Internal	loaded	112925	SU	26	3173	14.9	faf	_1E	2953	1	2129
2129	1547	5010	Outbound	loaded	112930	CS	26	5641	10.2	faf	_1E	5010	1	2129
2129	1347	5010	Outbound	loaded	112931	CS	8	40770	8	faf	_1E	5010	1	2129
2129	2028	5010	Outbound	loaded	112932	CS	26	5320	10.2	faf	_1E	5010	1	2129
2129	841	5010	Outbound	loaded	112933	CS	26	5852	10.2	faf	_1E	5010	1	2129
2130	808	1751	Internal	loaded	112939	CS	12	323	34.8	faf	_1E	1751	1	2130
2134	1655	1777	Internal	loaded	113047	CS	41	627	21.6	faf	_1E	1777	1	2134
2136	1521	2953	Internal	loaded	113312	SU	11	299	30	faf	_1E	2953	1	2136
2136	925	5010	Outbound	loaded	113322	SU	24	18803	7.9	faf	_1E	5010	1	2136
2136	1517	5010	Outbound	loaded	113323	DBL	7	13549	9.3	faf	_1E	5010	1	2136
2137	1023	5010	Outbound	loaded	113353	CS	40	3982	8.7	faf	_1E	5010	1	2137
2139	1603	2701	Internal	loaded	113387	SU	25	671	22.7	faf	_1E	2701	1	2139
2139	718	5010	Outbound	loaded	113392	CS	40	5682	8.7	faf	_1E	5010	1	2139
2139	1420	5010	Outbound	empty	113393	CS	26	0	0	faf	_1E	5010	1	2139
2140	2239	5010	Outbound	loaded	113399	CS	26	5641	10.2	faf	_1E	5010	1	2140
2142	1641	1753	Internal	loaded	113444	TT	7	11018	14.1	faf	_1E	1753	1	2142
2142	1253	5010	Outbound	loaded	113513	CS	40	3982	8.7	faf	_1E	5010	1	2142
2145	938	1738	Internal	loaded	113552	SU	26	3173	14.9	faf	_1E	1738	1	2145
2145	1851	1783	Internal	loaded	113553	SU	3	13485	19	faf	1E	1783	1	2145

US 97 Bend Parkway



US 97 between Bend & Redmond

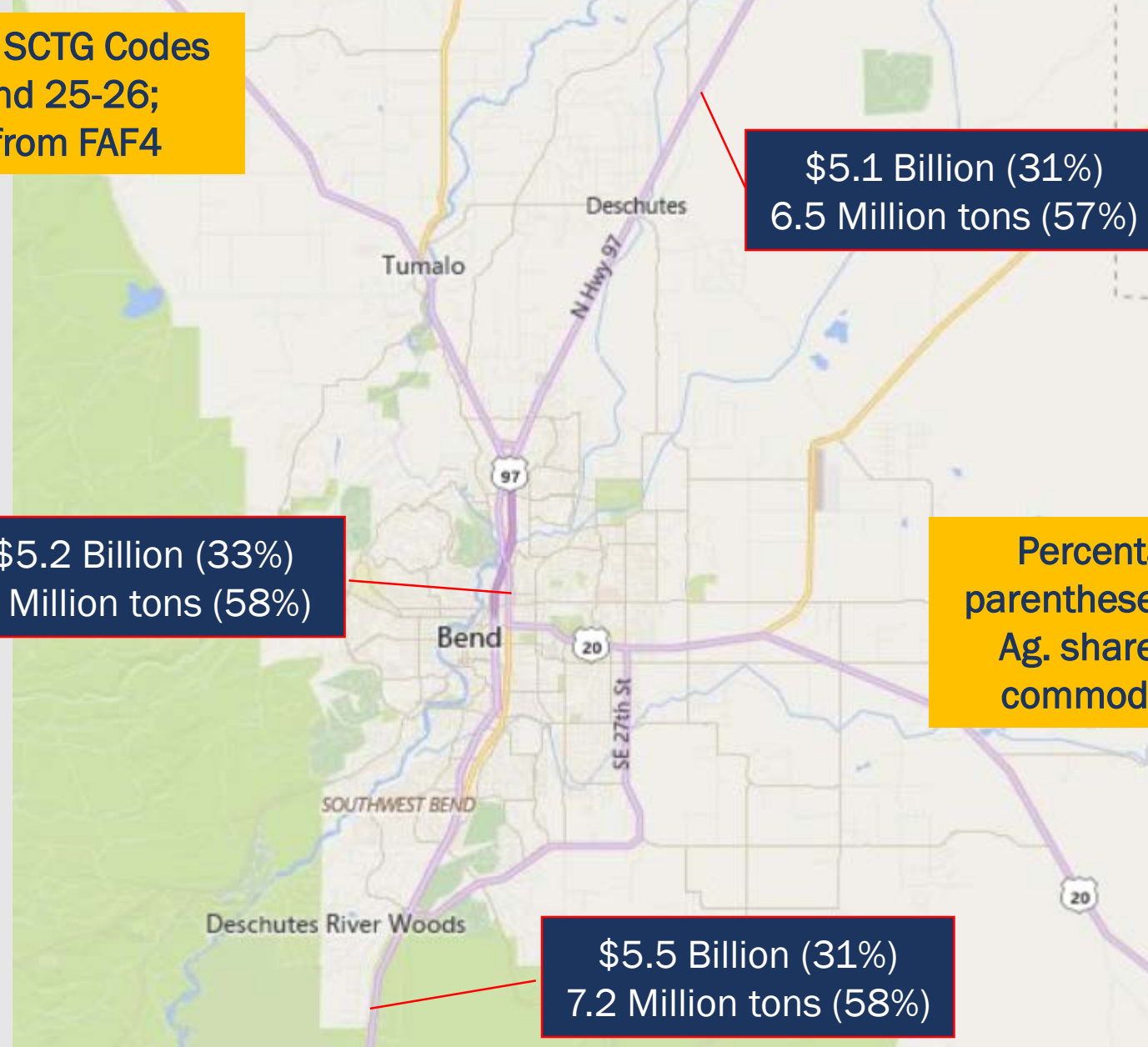


US 97 South of Bend



Average **Annual** Agricultural Commodity Flows 2017

Includes SCTG Codes
1-7 and 25-26;
Data from FAF4



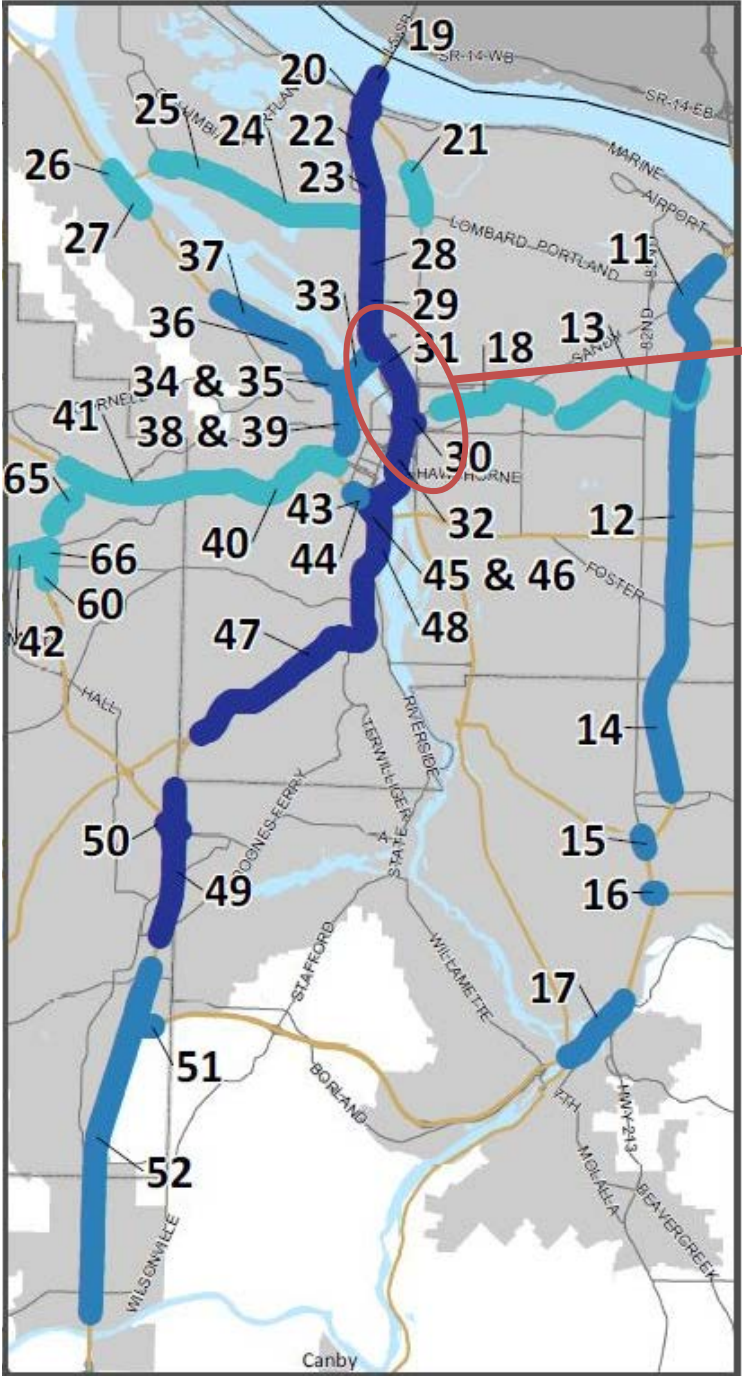
\$5.1 Billion (31%)
6.5 Million tons (57%)

\$5.2 Billion (33%)
7 Million tons (58%)

Percentages in
parentheses indicate
Ag. share of total
commodity flows

\$5.5 Billion (31%)
7.2 Million tons (58%)

Commodity Flows for Select Tier 1 Freight Delay Locations



Delay Area IDs: 30 & 31

Northbound Flows by Value and Tonnage	Share of Total Average Weekday Flows	
	Value	Tons
Clay, Minerals & Stone	1%	12%
Food & Kindred Products	18%	33%
Forest & Wood Products	2%	15%
Machinery, Instruments, Trans Equip	32%	6%
Other Misc.	34%	16%
Petroleum, Coal & Chemicals	10%	12%
Pulp & Paper Products	3%	6%
2014 TOTAL	\$ 87.5 Million	31,638

Questions?

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