



Truck Movements in America: *Shipments From, To, Within, and Through States*

Trucking is a vital segment of the transportation system in the United States. The Commodity Flow Survey estimates that trucks carried about \$4.6 trillion worth of goods over 900 billion ton-miles in 1993. This report presents new estimates of the movements of commodities by truck to, from, within, and through each state. These estimates show the magnitude of interstate commerce on the nation's highways, particularly on the traffic that travels through states.

Figure 1 and table 1 show the value of truck shipments and indicate the relative importance of trucking to each state. Figure 2 and table 2 show the ton-miles of truck shipments and indicate the amount of trucking activity over the highways. Ton-miles of each interstate shipment are divided among the states in proportion to the distance along the route used by the shipment, while the value of the interstate shipment is counted in each state in which the shipment passes. Thus, individual state totals may be added across states for ton-miles, not for value.

Major patterns that emerge from the data include:

- Nationally, shipments crossing state boundaries accounted for 73 percent of the ton-miles and 55 percent of the value of commodity movements by truck. A small proportion of the shipments account for much of the ton-miles. Shipments of 1,000 miles or more account for 10 percent of the value, only 2 percent of the weight, and 25 percent of the ton-miles of shipments by truck.
- Interstate commerce accounted for at least half of trucking by value of shipments in all

but three states. The same is true in terms of ton-miles.

- Shipments passing through states accounted for more than half of the value of commodity movements by truck in 25 states, and in 19 states, through shipments accounted for more than half of the state's ton-miles by truck.
- The largest shares of shipments within states tend to be in states that are geographically large with widely separated major cities, such as California and Texas, or in the corners of the country, such as Florida and Washington. The relatively large share of intrastate traffic in Michigan is overstated because imports from Canada are not included in the estimates.
- The large concentration of truck activity in the corridor from Illinois to Pennsylvania clearly shows that the nation's historic manufacturing belt remains vital.

The Bureau of Transportation Statistics (BTS) developed these estimates using the 1993 Commodity Flow Survey and the 1992 Census of Agriculture. The Bureau of the Census conducted the Commodity Flow Survey with guidance and financial assistance from BTS and the Federal Highway Administration. The survey asked a national sample of 200,000 shippers what they shipped, how the shipments were transported, and where the shipments went. The routes used by the shipments were estimated by Oak Ridge National Laboratory using sophisticated network simulation models and data on highways, railroads, waterways, pipelines, and air routes published by BTS in

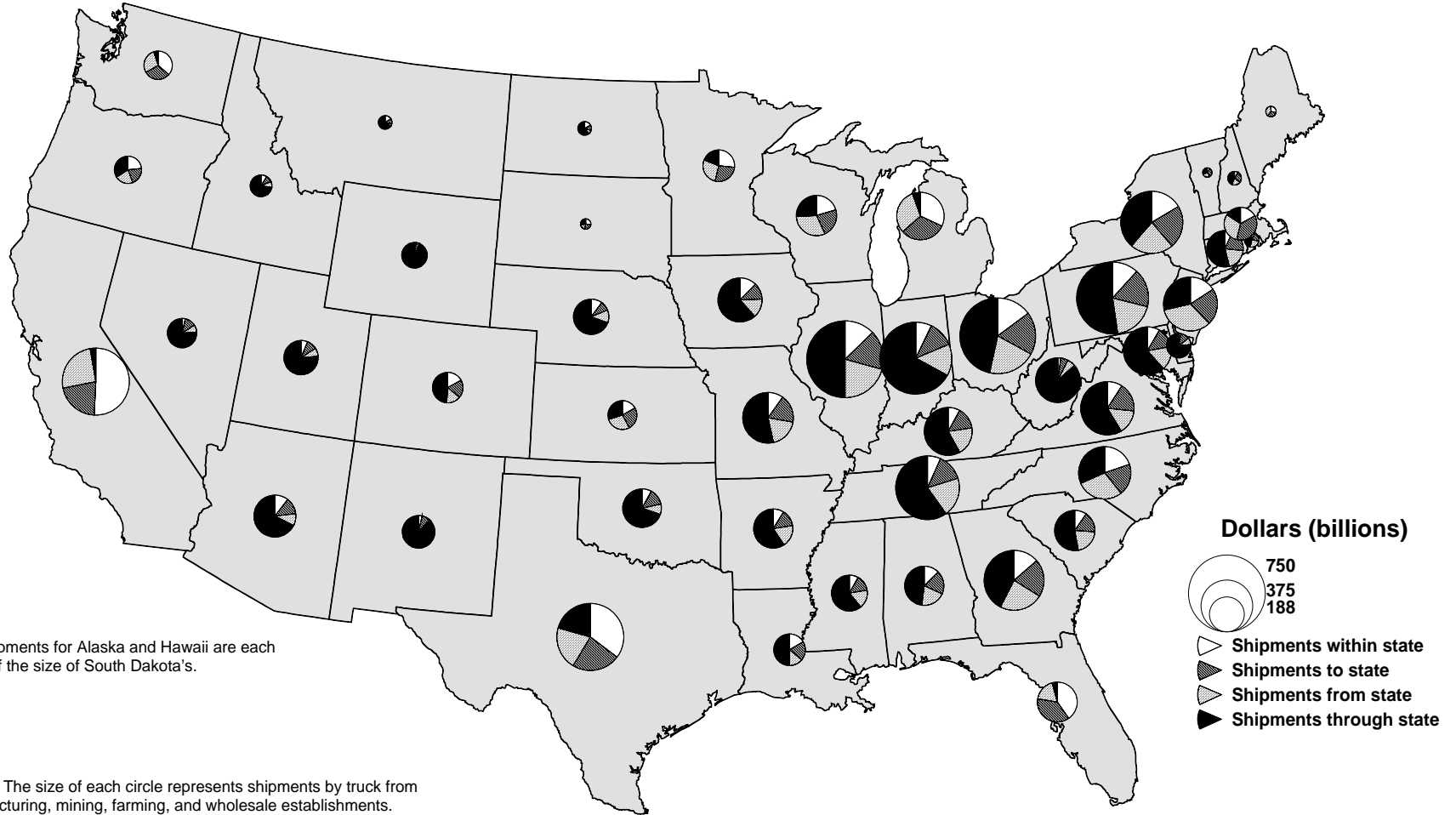
its National Transportation Atlas Database. The survey covered shippers in manufacturing, mining, and wholesale. BTS added estimates of farm-based shipments from the Census Bureau's 1992 Census of Agriculture. The resulting estimates include most truck activity, except imports, shipments between foreign countries that pass through the United States, and shipments by households, retail, service, and government establishments.

Estimates of truck activity presented in this report differ from statistics published by the Bureau of the Census. This is the first publication in which BTS accounted for farm-based shipments and incorporated all shipments in the network simulations. BTS also separated exports from domestic commodity

flows, which shifted some "within state" shipments to "from state" shipments and some "to state" shipments to "through state" shipments in border states. The statistical reliability of these estimates are comparable to the reliability estimates published by the Bureau of the Census for the Commodity Flow Survey.

For more information on truck shipments from the Commodity Flow Survey, call Felix Ammah-Tagoe at 202-366-8926. For additional copies of this publication, call 202-366-3282, or send your name and address to orders@bts.gov.

Figure 1. Value of Truck Shipments by State: 1993

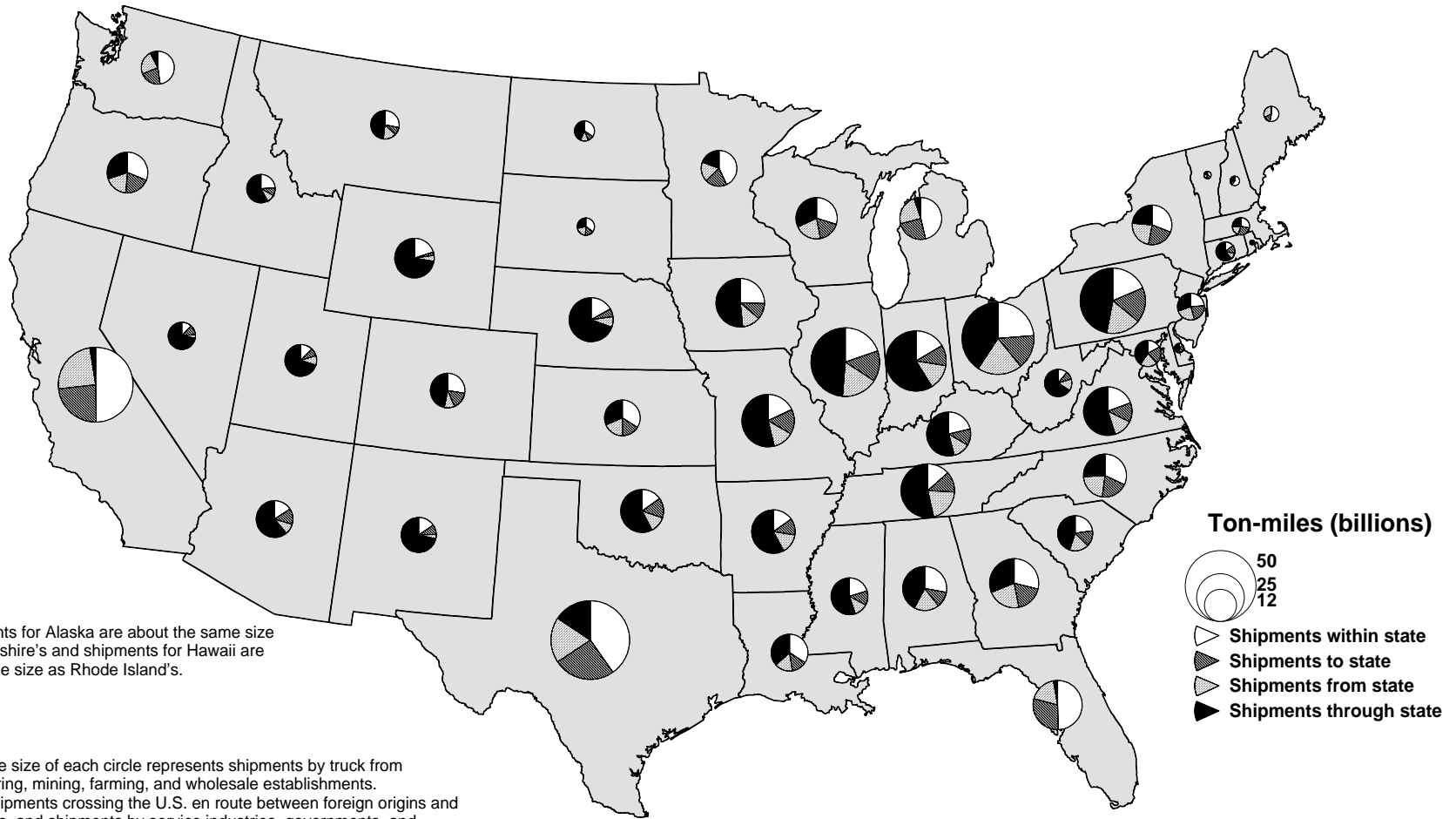


Truck shipments for Alaska and Hawaii are each about half the size of South Dakota's.

NOTE: The size of each circle represents shipments by truck from manufacturing, mining, farming, and wholesale establishments. Imports, shipments crossing the U.S. en route between foreign origins and destinations, and shipments by service industries, governments, and households are excluded. Shipments from, to, and within each state are compiled from the 1993 Commodity Flow Survey, adjusted by Oak Ridge National Laboratory to include farm-based shipments in the 1992 Census of Agriculture. Oak Ridge estimated through shipments by assigning flows to most likely routes on the National Highway Planning Network.

SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, May 5, 1997.

Figure 2. Ton-Miles of Truck Shipments by State: 1993



Truck shipments for Alaska are about the same size as New Hampshire's and shipments for Hawaii are about the same size as Rhode Island's.

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SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, May 5, 1997.

Table 1. Value of Truck Shipments by State: 1993

(Millions of dollars)

State	Total	Within	To	From	Through
Alabama	\$231,917	\$28,980	\$44,757	\$46,801	\$111,379
Alaska	5,265	3,456	1,581	192	36
Arizona	259,154	27,123	33,143	24,109	174,779
Arkansas	232,476	20,453	31,892	42,368	137,763
California	590,514	299,651	124,741	150,128	15,995
Colorado	150,137	25,438	28,900	22,490	73,310
Connecticut	202,304	13,087	40,978	39,325	108,914
Delaware	102,854	2,795	12,543	9,105	78,412
District of Columbia	19,385	609	8,134	2,176	8,466
Florida	238,070	95,614	89,118	43,218	10,120
Georgia	486,150	66,379	98,247	115,040	206,484
Hawaii	7,585	7,336	NA	249	NA
Idaho	84,157	7,362	8,219	7,251	61,324
Illinois	794,550	101,288	130,926	164,741	397,595
Indiana	667,565	47,020	77,276	95,624	447,645
Iowa	281,578	35,046	33,763	39,217	173,553
Kansas	136,525	23,229	34,358	38,187	40,750
Kentucky	328,630	25,818	48,590	63,268	190,954
Louisiana	157,121	26,217	30,427	22,122	78,355
Maine	23,408	6,483	7,700	9,032	193
Maryland	327,791	27,473	44,661	53,266	202,391
Massachusetts	169,435	28,964	61,936	51,854	26,681
Michigan	317,711	101,652	100,162	98,519	17,378
Minnesota	157,599	42,140	42,942	42,265	30,252
Mississippi	196,257	15,881	28,137	32,711	119,528
Missouri	360,881	35,537	64,748	67,957	192,638
Montana	37,586	5,960	4,873	2,049	24,704
Nebraska	191,026	19,508	16,036	22,883	132,600
Nevada	140,142	5,053	17,101	11,016	106,972
New Hampshire	37,595	3,199	10,107	7,924	16,365
New Jersey	399,922	63,549	87,581	134,693	114,099
New Mexico	169,010	5,928	13,945	3,052	146,085
New York	514,156	85,147	114,521	115,729	198,759
North Carolina	381,702	75,662	73,918	111,470	120,651
North Dakota	36,181	6,098	4,746	3,311	22,026
Ohio	723,430	107,269	131,488	148,259	336,414
Oklahoma	222,014	17,495	30,597	19,283	154,640
Oregon	121,046	28,345	25,040	26,595	41,066
Pennsylvania	667,954	78,196	114,434	125,895	349,429
Rhode Island	42,947	3,503	8,534	10,734	20,176
South Carolina	239,912	22,821	39,889	50,739	126,463
South Dakota	23,805	6,646	6,111	4,280	6,768
Tennessee	540,336	36,419	72,435	108,270	323,212
Texas	588,436	207,280	137,715	121,953	121,487
Utah	182,938	11,344	17,614	14,540	139,441
Vermont	18,208	1,900	5,512	4,961	5,834
Virginia	397,673	36,448	69,215	58,713	233,297
Washington	128,982	47,153	39,042	36,425	6,363
West Virginia	290,248	6,155	15,356	16,871	251,866
Wisconsin	243,707	49,979	55,038	75,639	63,051
Wyoming	108,292	2,337	4,969	1,178	99,808

NA Not applicable.

Note: The data represent shipments by truck from manufacturing, mining, farming, and wholesale establishments. Imports, shipments crossing the United States en route between foreign origins and destinations, and service industries, governments, and households are excluded. Shipments from, to, and within each state are compiled from the 1993 Commodity Flow Survey, adjusted by Oak Ridge National Laboratory to include farm-based shipments in the 1992 Census of Agriculture. Oak Ridge estimated through shipments by assigning flows to most likely routes on the National Highway Planning Network.

Source: U.S. Department of Transportation, Bureau of Transportation Statistics, 1997.

Table 2. **Ton-Miles of Truck Shipments by State: 1993**

(In millions)

State	Total	Within	To	From	Through
Alabama	21,610	6,042	2,472	3,970	9,125
Alaska	1,660	667	196	793	4
Arizona	15,817	2,451	2,243	1,468	9,655
Arkansas	21,025	3,190	2,564	3,118	12,152
California	54,756	27,317	12,771	13,280	1,387
Colorado	14,097	3,934	2,158	1,430	6,574
Connecticut	4,792	681	664	475	2,971
Delaware	1,368	166	269	178	755
District of Columbia	50	3	20	8	19
Florida	26,368	13,109	7,773	4,754	731
Georgia	25,934	7,487	4,673	5,723	8,051
Hawaii	380	380	NA	-	NA
Idaho	9,973	2,360	927	886	5,800
Illinois	47,278	9,316	6,811	8,105	23,045
Indiana	37,514	6,217	4,098	5,117	22,083
Iowa	25,429	6,539	2,676	3,098	13,116
Kansas	14,984	5,107	2,361	2,805	4,711
Kentucky	21,557	4,567	2,579	2,684	11,728
Louisiana	15,786	5,393	2,131	2,495	5,767
Maine	3,452	1,799	486	1,147	20
Maryland	8,870	1,523	1,860	1,873	3,613
Massachusetts	4,284	1,244	1,221	767	1,052
Michigan	19,576	9,074	4,797	4,659	1,046
Minnesota	14,849	6,418	2,953	2,566	2,912
Mississippi	15,780	3,229	1,954	1,930	8,666
Missouri	29,341	5,273	4,471	3,784	15,814
Montana	10,028	2,821	862	1,524	4,820
Nebraska	21,902	3,682	1,291	1,742	15,187
Nevada	9,413	1,064	1,113	419	6,816
New Hampshire	1,567	927	227	141	272
New Jersey	9,186	2,215	1,972	2,221	2,778
New Mexico	14,708	2,334	1,279	607	10,488
New York	18,054	5,580	4,021	4,187	4,266
North Carolina	20,894	6,660	4,214	4,602	5,417
North Dakota	5,518	1,887	490	732	2,409
Ohio	51,341	12,244	7,857	10,343	20,897
Oklahoma	20,445	3,082	3,064	2,480	11,819
Oregon	18,924	5,917	3,783	3,507	5,717
Pennsylvania	42,968	7,992	7,404	7,359	20,213
Rhode Island	454	92	118	113	131
South Carolina	14,525	3,335	2,146	2,558	6,486
South Dakota	4,231	1,526	668	855	1,183
Tennessee	30,498	4,101	3,759	6,330	16,307
Texas	59,564	23,974	15,060	11,219	9,311
Utah	12,353	1,477	1,002	1,183	8,691
Vermont	881	252	232	199	199
Virginia	25,788	4,976	3,301	3,294	14,217
Washington	13,221	6,335	2,833	3,094	959
West Virginia	9,301	1,044	873	1,274	6,110
Wisconsin	19,421	5,816	3,295	4,139	6,172
Wyoming	17,901	3,585	472	862	12,982

- Represents zero or rounds to zero. NA Not applicable.

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