

November 17, 2009

Memorandum

To: MOVES Task Force

DRAFT

From: Erin Morrow, COG/DTP

Subject: Local Truck Data for Comparison to MOVES Defaults

This memorandum describes DTP staff efforts to compare default MOVES truck data to local data. As part of the 2002 Economic Census, the U.S. Census Bureau conducted and published results of its Vehicle Inventory and Use Survey (VIUS) for each state and the District of Columbia. According to the published report, the VIUS is “a probability sample of private and commercial trucks registered (or licensed) in the United States as of July 1, 2002. A sample of about 136,000 trucks was surveyed to measure the characteristics of nearly 89 million trucks registered in the United States. The VIUS excludes vehicles owned by federal, state and local governments; ambulances; buses; motor homes; farm tractors; unpowered trailer units; and trucks reported to have been disposed of prior to January 1, 2002.” The truck counts do include pick-up trucks, SUVs and small vans.

MOVES classifies trucks by short-haul (200 miles or less) and long haul (greater than 200 miles) and by single unit or combination truck. These data are available in the VIUS reports and are shown in Tables 1A-C. Attachment A illustrates an excerpt from Table 5 of the Maryland report where this information on primary range of vehicle operation by truck type was obtained.

Table 1A: 2002 Maryland Registered Trucks by Truck Type (thousands)

	Total	Single-unit trucks and truck-tractors w/o trailer	Combination trucks
50 miles or less	982.5	976.5	6.0
51 to 100 miles	122.2	121.2	1.0
101 to 200 miles	22.4	22.1	0.3
201 to 500 miles	20.3	20.2	S
501 miles or more	0.6	0.4	S
Not reported	203.3	199.9	S
N/A	23.3	23.3	V

Table 1B: 2002 District of Columbia Registered Trucks by Truck Type (thousands)

	Total	Single-unit trucks and truck-tractors w/o trailer	Combination trucks
50 miles or less	26.2	26.2	V
51 to 100 miles	2.4	2.4	V
101 to 200 miles	1.2	1.2	V
201 to 500 miles	0.7	0.7	V
501 miles or more	S	S	V
Not reported	10.9	10.9	S
N/A	0.7	0.7	V

Table 1C: 2002 Virginia Registered Trucks by Truck Type (thousands)

	Total	Single-unit trucks and truck-tractors w/o trailer	Combination trucks
50 miles or less	1436.9	1413.2	23.7
51 to 100 miles	166.3	161.3	5.0
101 to 200 miles	26.0	22.2	3.8
201 to 500 miles	20.5	16.5	4.0
501 miles or more	S	S	2.2
Not reported	278.0	275.7	2.3
N/A	36.2	36.2	V

S Estimate does not meet publication standards because of high sampling variability or poor response

V Represents an estimate of less than 50 vehicles, 50,000 miles, or 0.05 percent

Table 2 shows the total trucks for Maryland and Virginia classified by short-haul (200 miles or less) and long-haul (more than 200 miles). The District of Columbia was not included in this table because of the lack of combination truck data. For Maryland and Virginia, in categories where data were not available, the assumption was made that the number of single-unit trucks and combination trucks added together equals the total number of trucks. The report states that due to rounding, the estimates may not be additive; however, in categories where the data were not available, this provides a reasonable estimate to be compared to MOVES default data.

Table 2: Maryland and Virginia 2002 Trucks by Truck Type (thousands)

	Total	Single-unit trucks and truck-tractors w/o trailer	Combination trucks
Short-haul	2756.3	2716.5	39.8
Long-haul	41.4	37.1	6.5
TOTAL	2797.7	2753.6	46.3

Table 3 shows the total number of trash (garbage or recycling) trucks in Maryland and Virginia as provided by the VIUS. The number of trash trucks was not reported for the District of Columbia because the sample is estimated to be less than 50 vehicles and thus too small to report.

Table 3. 2002 Trash Trucks (Garbage or Recycling) (thousands)

	Total
Maryland	1.3
Virginia	2.5

Attachment A

Table 5. Trucks by Truck Type: 2002—Con.

[Thousands. Estimates are based on data from the 2002 Vehicle Inventory and Use Survey. Because of rounding, estimates may not be additive]

Vehicular and operational characteristics	Truck type						Coefficient of variation of total (percent)	
	Total	Single-unit trucks and truck-tractors without trailer	Combination					
			Total	Single-unit truck with trailer	Truck-tractor with single trailer	Truck-tractor with double trailers		Truck-tractor with triple trailers
PRIMARY RANGE OF OPERATION								
Off-the-road	1.2	1.1	.2	S	.1	V	V	23.6
50 miles or less	982.5	976.5	6.0	S	1.2	V	V	2.9
51 to 100 miles	122.2	121.2	1.0	.5	.5	V	V	13.9
101 to 200 miles	22.4	22.1	.3	.3	.3	V	V	33.1
201 to 500 miles	20.3	20.2	S	V	S	V	V	36.6
501 miles or more .....	.6	.4	S	S	S	V	V	35.0
Not reported	203.3	199.9	S	S	.5	V	V	10.7
Not applicable ²	23.3	23.3	V	V	V	V	V	31.8
PRIMARY JURISDICTION								
Operated in Canada	V	V	V	V	V	V	V	N
Operated in Mexico	V	V	V	V	V	V	V	N
Operated within the home base state	1 154.6	1 144.4	10.2	8.2	2.1	V	V	2.1
Operated in states other than the home base state	55.9	55.5	.4	S	.3	V	V	21.6
Not reported	141.9	141.5	.4	.1	.3	V	V	13.1
Not applicable ²	23.3	23.3	V	V	V	V	V	31.8
MONTHS OPERATED								
12	986.2	983.3	2.9	1.4	1.5	V	V	2.9
7 to 11	174.7	170.5	S	S	.4	V	V	11.5
2 to 6	145.6	144.6	1.0	.5	.8	V	V	12.8
1 or less	46.0	43.1	S	S	S	V	V	23.2
Vehicle not used	23.3	23.3	V	V	V	V	V	31.8
VEHICLE SIZE								
Light	1 303.0	1 299.9	S	S	V	V	V	1.0
Medium	42.5	39.0	S	S	V	V	V	17.7
Light-heavy	14.4	13.3	1.1	.9	S	V	V	7.1
Heavy-heavy	15.8	12.6	3.2	.8	2.4	V	V	5.5
AVERAGE WEIGHT (POUNDS)								
Less than 6,001	949.4	949.2	S	S	V	V	V	2.9
6,001 to 8,500	290.7	287.7	S	S	V	V	V	8.5
8,501 to 10,000	62.9	62.9	V	V	V	V	V	19.2
10,001 to 14,000	28.7	25.4	S	S	V	V	V	24.2
14,001 to 16,000	8.4	8.3	S	S	V	V	V	34.2
16,001 to 19,500	5.4	5.3	S	S	V	V	V	12.6
19,501 to 26,000	14.4	13.3	1.1	.9	S	V	V	7.1
26,001 to 33,000	4.8	4.6	S	S	S	V	V	13.2
33,001 to 40,000	3.1	2.7	.5	.5	1.3	V	V	15.9
40,001 to 50,000	1.5	.8	.7	.5	.6	V	V	16.9
50,001 to 60,000	1.7	1.3	.4	S	.2	V	V	13.8
60,001 to 80,000	4.6	3.2	1.5	S	1.3	V	V	6.6
80,001 to 100,000	S	V	S	S	V	V	V	S
100,001 to 130,000	V	V	V	V	V	V	V	N
130,001 or more	V	V	V	V	V	V	V	N
TOTAL LENGTH (FEET)								
Less than 20.0	1 255.4	1 255.4	V	V	V	V	V	1.4
20.0 to 27.9	98.3	97.9	.4	.4	V	V	V	14.3
28.0 to 35.9	11.1	7.7	S	S	S	V	V	26.3
36.0 to 40.9	3.3	2.4	.9	.5	S	V	V	16.3
41.0 to 44.9	S	.6	S	S	S	V	V	S
45.0 to 49.9	1.1	.5	.6	.1	.4	V	V	25.8
50.0 to 54.9 .....	.6	S	.3	.1	.2	V	V	28.3
55.0 to 59.9 .....	.9	V	.9	S	.6	V	V	22.8
60.0 to 64.9 .....	.8	V	.8	S	.8	V	V	15.7
65.0 to 69.9 .....	.2	V	.2	V	.2	V	V	34.0
70.0 to 74.9	S	V	S	V	S	V	V	S
75.0 to 79.9	V	V	V	V	V	V	V	N
80.0 or more	S	V	S	V	S	V	V	S
MILES PER GALLON								
Less than 5	4.4	3.9	.5	S	.4	V	V	12.4
5 to 6.9	10.3	8.4	1.9	.4	1.5	V	V	8.0
7 to 8.9	9.4	8.8	.7	.5	.2	V	V	8.9
9 to 10.9	48.0	47.5	.5	.5	S	V	V	20.2
11 to 12.9	96.3	93.2	S	S	S	V	V	15.8
13 to 14.9	110.9	107.9	S	S	V	V	V	14.8
15 or more	843.1	842.8	S	S	V	V	V	3.5
15 to 20.9	644.8	644.5	S	V	V	V	V	4.8
21 to 24.9	133.1	133.1	V	V	V	V	V	13.8
25 or more	65.2	65.2	V	V	V	V	V	20.3
Not reported	230.1	229.1	1.0	.5	.5	V	V	9.9
Not applicable ²	23.3	23.3	V	V	V	V	V	31.8

See footnotes at end of table.

