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Registrations and Vehicle Miles of Travel of Light-Duty Vehicles, 1985-1995

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LIGHT-DUTY VEHICLES, 1985-1995**

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1. Background

The last two decades have seen both an evolution in, and explosive sales of, light trucks. Minivans and sport utility vehicles were introduced in the late 1970's and early 1980's and their popularity has increased dramatically. For example, sales of minivans increased from 14,000 in 1983 to 223,000 in 1984. Two decades ago, light-duty trucks accounted for less than 20% of the new light-duty vehicle market [1]. By 1996, this percentage jumped to 42% (Figure 1). For the purpose of monitoring the Corporate Average Fuel Economy standards, the Environmental Protection Agency defines light-duty trucks as: small and standard pickups, passenger and cargo vans, and special purpose vehicles (i.e., sport utility vehicles) [2].

Historically, light trucks have been used primarily for commercial or farming purposes. These vehicles were predominantly full-size pickup trucks and van-type vehicles. For the purpose of vehicle registration, these vehicles were classified as light trucks and their vehicle miles of travel (VMT) were estimated based on the assumption that

they were used exclusively as commercial and farming vehicles [3]. As light-duty trucks continued to gain a greater market share, they have become substitutes for automobiles and have become more of a personal vehicle than a commercial vehicle. Consequently, light-duty trucks now exhibit travel characteristics similar to those of automobiles.

Responding to the evolution in the light-duty vehicle market, some states categorize certain types of light-duty trucks (e.g., minivans and utility vehicles) as automobiles. However, this change is not universal in that some states continue to categorize light-duty trucks as trucks. This lack of

consistency makes it impossible to use the data for uniform counts of vehicle registration by vehicle type and for state-by-state comparisons.

Estimating travel by different vehicle types (in terms of VMT) is usually based on data collected from automatic vehicle classification (AVC) equipment. This equipment classifies vehicles based on their length and axle spacings. Due to the resemblance of minivans and sport utility vehicles to automobiles, this approach can not accurately distinguish minivans and sport utility vehicles from automobiles. As a result, AVC classifies some of the minivans and sport utility vehicles as automobiles. Estimated VMT then tends to overestimate automobile travel and underestimate light truck travel.

In 1994, the definition of light-duty trucks was revised explicitly in the Federal Highway Administration (FHWA) publication, *Highway Statistics* [4], to include vans, pickup trucks and sport utility vehicles. Nonetheless, data submitted by states still reflect the inconsistency in vehicle registration criteria. As a result, VMT estimates do not accurately reflect light truck travel.

2. Objectives

To obtain vehicle registration data that consistently and accurately reflect the distinction between automobiles and light-duty trucks, Oak Ridge National Laboratory (ORNL) was asked by FHWA to estimate the current and historical vehicle registration numbers of automobiles and of other two-axle four-tire vehicles (i.e., light-duty trucks), and their associated travel. The term automobile is synonymous with passenger car. Passenger cars are defined as all sedans, coupes, and station wagons manufactured primarily for the purpose of carrying passengers. This includes taxicabs, rental cars, and ambulances and hearses on an automobile chassis. Light-duty trucks refer to all two-axle four-tire vehicles other than passenger cars. They include pickup trucks, panel trucks, delivery and passenger vans, and other vehicles such as campers, motor homes, ambulances on a truck chassis, hearses on a truck chassis, and carryalls. In this study, light-duty trucks include four major types: (1) pickup truck, (2) van, (3) sport utility vehicle, and (4) other 2-axle 4-tire truck.

Specifically, this project re-estimates statistics that appeared in Tables MV-1 and MV-9 of the 1995 Highway Statistics [4]. The framework of the vehicle registrations to be estimated in this project are illustrated in Table 1.

Table 1. Light-Duty Vehicle Registrations to be Estimated

State	Private and Commercial					Federal					State, County & Municipal					Total
	Auto	Pickup	Utility	Van	Other	Auto	Pickup	Utility	Van	Other	Auto	Pickup	Utility	Van	Other	
AL																
AK																
WI																
WY																
Total																

3. Vehicle Registration Data

3.1 Private and Commercial Vehicle Registration Data

The original plan to estimate vehicle registration data was to contact individual states for the definition of automobiles and light trucks that the states use to compile their data in Form 561 (Appendix A.) The hope was to reclassify vehicle registration data into the automobile and four light truck categories based on consistent definitions of vehicle types. The FHWA asked each state to provide their definition of automobiles and light trucks. After reviewing the material supplied by the states, it became clear that the way in which the states classify vehicles is so disparate that our original methodology would have been a prohibitive undertaking. For example, some states classify vehicles based on the vehicle's use or purpose while some states classify vehicles based on the body style of the vehicle.

An alternative source of light-duty vehicle registration data is the National Vehicle Population Profile (NVPP) compiled by The Polk Company (formerly R.L. Polk and Company) [5]. In essence, the NVPP [5] is compiled based on individual states' vehicle registration files maintained by the states' Department of Motor Vehicles. A number of data processing protocols were reportedly conducted by Polk to assure data quality and consistency across states [6]. First, duplicate registrations from one state to the next were identified and eliminated. Second, Vehicle Identification Numbers (VINs) are decoded to determine vehicle body types. Based on this VIN-decoded body type information, Polk classifies vehicles into vehicle types (e.g., chassis/pickup, mini van bus, 4-door utility). As a result of these data processing protocols, vehicle registration data in Polk's NVPP [5] are considered more consistent across states, with respect to vehicle definition, than registration data maintained by individual states.

Nonetheless, there are limitations to the NVPP [5] data -- the criteria for including publicly-owned vehicles in the NVPP [5] are inconsistent. Federal vehicles are included in the NVPP [5] files **only** if they are registered within a state [6]. However, according to the General Services Administration, Federal vehicles would not normally be registered within a state (unless a state license plate was necessary for undercover operations). State and local government vehicles are included in the NVPP [5] files [6]. It was decided that since there is no way of separating them from private and commercial vehicles, other sources would be used to obtain estimates of the State and local government vehicles. Then those estimates could be subtracted from Polk's NVPP [5] in order to estimate private and commercial registration data.

The NVPP [5] files for automobiles and light trucks from 1985 to 1995 were obtained from the U.S. Department of Transportation's Volpe Transportation Systems Center (Volpe) in PC SAS® format on three CD-ROMs. For each year, there are three main files containing information about domestic autos, import autos, and light trucks by state, respectively. The light trucks reported in the NVPP [5] are those up to 14,000 lbs. gross vehicle weight rating (GVWR). For the purposes of this study, we excluded trucks which were more than 10,000 pounds GVWR. Detailed information, such as make, model, fuel type, body style, and geographic location, is also maintained in these files.

Because the makes and models of the vehicles in the "auto" file were consistent with those reported in the *Fuel Economy Guide* [2], it was concluded that these vehicles were all appropriately classified as automobiles. Consequently, NVPP's [5] **automobile** registration data by state were used in their entirety. By comparison, registration data on light-duty trucks were more difficult to estimate. This was because truck data need to be categorized into four truck types (i.e., pickups, vans, sport utilities, or other single-unit light trucks), which are not explicitly indicated in the NVPP [5] files. To determine which truck model belongs to which of the four truck types, information on the truck's body style was used. Table 2 presents the links between body types and the desirable truck types. For example, the body types of "2-door utility," "4-door utility," and "Suburban" are categorized under the "sport utility" truck type.

A series of programs were developed using PC SAS® software to classify trucks into the four truck types. The 1995 programs are used to illustrate the classification method and are listed in Appendix B, Part 1, with the output of each program shown in Appendix C, Part 1.

Trucks with a body type that is "undistinguishable" can not be readily categorized. Instead, a manual procedure was developed to categorize them. They were first categorized individually by matching the information on their make and model with light truck categories from the *Fuel Economy Guide* [2]. Based on these now distinguishable vehicles, we calculated the distribution of these vehicles by vehicle type (Table 3). For example, of the trucks with a "crew cab/chassis" body type in 1995, we were able to identify that 87.2% were "pickups," 4.9% were "sport utilities," and 7.9% were "other truck types." The vehicles that are still "undistinguishable" in the "crew cab/chassis" group were then distributed to these vehicle types based on this distribution. Note that this distribution varies by year. Based on this approach, we classified each truck in the NVPP [5] to one of the four truck types. The 1995 state-specific registration estimates of light-duty vehicles, as reported in NVPP [5], are shown in Table 4. Note that these registration estimates include some, but not all, publicly-owned vehicles. To estimate the state-specific registration of private and commercial vehicles, we assumed that: (1) there is a negligible number of Federal vehicles included in the NVPP [5], and (2) there is a not-so-negligible, but still small, number of state, county and municipal vehicles included.

Table 2. Truck Body Style Classification

Truck Type	Body Style	Body Style Abbreviation
Pickup	Big 10 Cab/Chassis ¹	BC
	Big 10 Pickup	BP
	Chassis/Pickup	CU
	Crew Cab Pickup	CW
	Flatbed or Platform	FB
	Pickup	PK
	Stake or Rack ¹	ST
Van	Forward Control Chassis ¹	FC
	Mini Van Bus	MB
	Mini Van (incomplete)	MI
	Mini Passenger Van	MP
	Multi-stop ¹	MS
	Mini Van	MV
	Parcel Delivery	PD
	Passenger Van (incomplete)	PI
	Panel	PN
	Passenger Van	PV
	Step Van	SN
	Van Bus	SV
	Van (incomplete)	VI
	Van	VN
Sport Utility	2-Door Utility	2U
	4-Door Utility	4U
	Suburban	LL
Other	Bus	BU
	Incomplete Chassis	IC
	Motor Home	MH
	Motor Home Cutaway	MY
	Roadster	RD
Undistinguishable	Cab/Chassis	CB
	Crew Cab/Chassis	CE
	Convertible	CV
	Cargo Cutaway	CY
	Station Wagon	SW
	Utility	UT
	Travel all	XT

¹ These body styles were originally listed as undistinguishable, but further analysis revealed that for every year, every vehicle in the category was of one truck type.

Table 3. Shares of Undistinguishable Body Style by Truck Type, 1985-95
(Percentage)

Year	Pickup	Van	Sport Utility	Other Truck
<i>Cab/Chassis</i>				
1985	94.5	1.3	3.8	0.4
1986	95.0	0.8	3.9	0.3
1987	94.5	0.4	3.8	1.3
1988	93.3	0.0	3.7	3.0
1989	92.8	0.0	3.3	3.9
1990	92.7	0.0	3.2	4.1
1991	92.6	0.0	3.1	4.3
1992	92.6	0.0	3.1	4.3
1993	93.6	0.0	2.8	3.6
1994	93.9	0.0	2.6	3.5
1995	93.6	0.0	2.9	3.5
<i>Crew Cab/Chassis</i>				
1985	92.5	0.0	7.5	0.0
1986	92.1	0.0	7.9	0.0
1987	88.0	0.0	7.3	4.7
1988	81.9	0.0	6.9	11.2
1989	81.1	0.0	6.4	12.5
1990	82.3	0.0	5.9	11.8
1991	82.5	0.0	5.8	11.7
1992	83.0	0.0	5.8	11.2
1993	83.9	0.0	6.2	9.9
1994	95.2	0.0	4.8	0.0
1995	87.2	0.0	4.9	7.9
<i>Convertible</i>				
1985	100.0	0.0	0.0	0.0
1986	0.0	0.0	100.0	0.0
1987	0.0	0.0	100.0	0.0
1988	0.0	0.0	100.0	0.0
1989	0.0	0.0	100.0	0.0
1990	0.3	0.0	99.7	0.0
1991	0.5	0.0	95.5	0.0
1992	0.5	0.0	99.5	0.0
1993	0.4	0.0	99.6	0.0
1994	0.4	0.0	99.6	0.0
1995	0.4	0.0	99.6	0.0
<i>Cargo Cutaway</i>				
1985	0.0	84.0	16.0	0.0
1986	0.0	84.2	15.8	0.0
1987	0.0	87.2	12.8	0.0
1988	0.0	87.5	12.5	0.0
1989	0.0	92.6	7.4	0.0
1990	0.0	93.4	6.6	0.0
1991	0.0	94.8	5.2	0.0
1992	0.0	96.6	3.4	0.0
1993	0.0	88.1	11.9	0.0
1994	0.0	88.9	11.1	0.0
1995	0.0	87.7	11.4	0.9

Table 3. Shares of Undistinguishable Body Style by Truck Type, 1985-95 (continued)
(Percentage)

Year	Pickup	Van	Sport Utility	Other Truck
<i>Station Wagon</i>				
1985	1.9	1.5	96.6	0.0
1986	0.0	1.5	98.5	0.0
1987	0.0	1.4	98.6	0.0
1988	0.0	1.1	98.9	0.0
1989	0.0	0.9	99.1	0.0
1990	0.0	0.8	99.2	0.0
1991	0.0	0.0	100.0	0.0
1992	0.0	0.0	100.0	0.0
1993	0.0	0.0	100.0	0.0
1994	0.0	0.0	100.0	0.0
1995	0.0	0.0	100.0	0.0
<i>Utility</i>				
1985	7.2	0.6	92.2	0.0
1986	7.7	0.6	91.7	0.0
1987	7.7	0.6	91.7	0.0
1988	0.7	0.6	98.7	0.0
1989	7.9	0.6	91.5	0.0
1990	0.0	1.8	98.2	0.0
1991	0.0	0.0	100.0	0.0
1992	0.0	0.0	100.0	0.0
1993	0.0	0.0	100.0	0.0
1994	0.0	0.0	100.0	0.0
1995	0.0	0.0	100.0	0.0
<i>Travel all</i>				
1985	0.0	80.5	19.5	0.0
1986	0.0	75.3	24.7	0.0
1987	0.0	64.0	36.0	0.0
1988	0.0	0.0	100.0	0.0
1989	0.0	0.0	100.0	0.0
1990	---	---	---	---
1991	---	---	---	---
1992	---	---	---	---
1993	---	---	---	---
1994	0.0	0.0	100.0	0.0
1995	0.0	0.0	100.0	0.0

Table 4. Estimated Number of Light-Duty Vehicles Registered in 1995,
by State and Vehicle Type
(based on the NVPP [5] data)

State	Automobile	Pickup	Sports Utility	Van	Other Truck	Total
AL	2,060,477	805,941	187,602	205,767	4,591	3,264,378
AK	178,988	125,885	58,618	33,927	1,771	399,189
AZ	1,645,717	654,250	237,044	201,762	6,645	2,745,418
AR	966,817	577,004	115,026	112,705	2,420	1,773,972
CA	14,011,097	3,921,790	1,483,910	1,754,179	41,910	21,212,886
CO	1,644,319	603,080	358,447	203,940	6,101	2,815,887
CT	1,845,438	259,142	166,802	146,428	3,807	2,421,617
DE	416,974	89,722	43,230	49,885	1,112	600,923
DC	234,583	9,232	10,128	13,969	243	268,155
FL	7,574,524	1,503,715	618,035	901,541	15,898	10,613,713
GA	3,166,936	1,079,949	316,978	370,490	6,332	4,940,685
HI	521,117	143,971	55,378	67,453	871	788,790
ID	482,348	322,170	96,283	60,985	3,194	964,980
IL	5,894,131	925,690	459,037	705,498	14,440	7,998,796
IN	2,785,861	894,165	208,265	394,694	8,595	4,291,580
IA	1,488,571	549,578	126,207	195,463	6,129	2,365,948
KS	1,243,557	532,066	128,933	173,736	5,056	2,083,348
KY	1,745,730	703,301	144,318	191,140	4,485	2,788,974
LA	1,808,670	845,517	167,947	220,094	4,711	3,046,939
ME	551,529	214,873	63,873	59,592	1,757	891,624
MD	2,554,066	452,977	227,691	284,401	4,493	3,523,628
MA	3,194,906	408,279	295,257	280,448	6,948	4,185,838
MI	4,874,718	1,209,815	470,366	724,741	11,718	7,291,358
MN	2,229,524	679,019	244,660	302,617	9,252	3,465,072
MS	1,015,560	508,028	88,941	100,551	2,585	1,715,665
MO	2,436,655	903,704	233,519	313,853	7,939	3,895,670
MT	347,828	255,874	67,310	43,141	2,564	716,717
NE	759,200	322,885	88,746	104,087	2,760	1,277,678
NV	636,311	242,340	109,939	69,943	2,810	1,061,343
NH	678,001	178,901	76,378	75,032	2,319	1,010,631
NJ	4,308,635	419,149	394,222	420,832	9,224	5,552,062
NM	698,014	399,573	120,461	86,706	2,831	1,307,585
NY	7,883,667	944,935	637,832	795,434	18,735	10,280,603
NC	3,484,657	1,153,245	332,253	390,516	6,160	5,366,831
ND	319,563	168,060	38,112	39,373	1,462	566,570
OH	5,844,620	1,281,535	387,225	752,712	13,863	8,279,955
OK	1,435,091	782,291	153,544	180,912	6,129	2,557,967
OR	1,450,266	668,557	213,955	212,754	9,941	2,555,473
PA	5,967,461	1,084,648	557,186	587,585	15,166	8,212,046
RI	532,003	75,145	39,219	43,861	1,258	691,486
SC	1,686,111	537,418	148,161	175,724	3,039	2,550,453
SD	360,815	182,274	49,828	47,739	1,964	642,620
TN	2,499,382	927,711	232,000	267,066	4,903	3,931,062
TX	7,357,227	3,159,838	990,878	878,599	17,474	12,404,016
UT	739,935	292,240	136,109	93,716	3,535	1,265,535
VT	298,047	105,356	39,383	33,566	1,119	477,471
VA	3,383,124	882,610	349,385	376,307	6,816	4,998,242
A	2,517,093	973,737	340,617	352,050	15,474	4,198,971
WV	779,481	338,661	92,513	78,832	1,956	1,291,443
WI	2,523,379	687,112	250,862	347,776	8,372	3,817,501
WY	179,157	141,585	48,534	23,004	1,177	393,457
Total	123,241,881	35,128,543	12,501,147	14,547,126	344,054	185,762,751

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3.2 State, County, and Municipal Government (SCM) Registration Data

Due to the lack of other sources of SCM data, Form 561 data were considered. Unfortunately, SCM registration totals reported on those forms are incomplete and appear to be inconsistent. For example, in 1994, the state and local government work force in Florida was 606,700 [7], and Florida reported 84,812 SCM vehicles on Form 561. New York, on the other hand, had a state and local government work force of 1,001,300, but reported only 61,919 SCM vehicles. The state and local work force in Texas was 912,000, but Texas reported 162,742 SCM vehicles. These variations are partly due to differences in interpretation (definitions of SCM vehicles), as well as due to different accounting methods.

Some adjustments were made for the inconsistency in reported SCM registrations in statistical tables compiled by FHWA. However, the inconsistency problem appears to persist. For example, in the *Highway Statistics 1994* Table MV-7 [4], the registered total SCM entries for Florida, New York and Texas are 213,372, 161,991, and 382,159. A footnote to Table MV-7 [4] points out the inconsistency.

Due to the inconsistency and incompleteness in the reported SCM data, an estimation procedure was developed based on Form 561 data from only twelve states. Data submitted by these twelve states were considered by FHWA to be most likely to be reasonably accurate. These states are Delaware, Georgia, Iowa, Kentucky, Maine, Montana, North Dakota, Oregon, Pennsylvania, Rhode Island, South Dakota, and Wyoming. The estimation procedure was based on the assumption that the size of the SCM fleet in a state is a function of its government's work force. That is, the larger the work force, the greater the transportation need and thus the greater the fleet size. Based on this rationale, the SCM registration counts were regressed on the State and local government work force data [7] for the twelve states.

Specifically, the regression model was based on SCM vehicle registrations from Form 561, total autos and vans (Appendix A, column 4, row A.3) plus light trucks (Appendix A, column 4, row C.1), and state and local government employment data from the BLS [7]. Only data from years 1988, 1992, and 1995 were used – those were the years where labor statistics were readily available.

Although the complete annual labor statistics were found at later date, the decision was to continue using data from these three years for our analysis. This decision did not impact our analysis results because (1) of the strong serial correlation in both the employment and vehicle registration series, (2) tests were performed to determine whether the regression relationship differs over the years (serial correlation has an adverse effect on such tests), and (3) on the basis of that test, it was concluded that the registration-employment relationship does not significantly vary with time (so that data for additional years would not contribute much to the model). This model should be revised when additional data become available.

The SCM registrations for cars and trucks were combined to a total number of SCM vehicles for each state. Despite the fact that data from the 12 states were considered to be relatively reliable, there were still a few problems with these data. Several states (Maine and Oregon, and Wyoming in 1995) did not report entries for SCM trucks, so that the totals could not be computed for those states. The 1988 data for Georgia is actually for 1990, because the 1988 data are questionable [8]. The data for Delaware, 1992 were not used because they were not consistent with the 1988 and 1995 data for that state (see the "Jobs per Vehicle" column). The Kentucky data also seemed inconsistent; only the 1995 data were used. The data used in the regression are listed in Table 5.

Various regression models were considered, including models with and without log transformations, models in which the SCM-to-employment relation could vary with year, and models in which that relationship was taken to be the same for all years. The log models were selected because they are more suited to the wide range of values in both the registration and employment data — without the log transformation, the larger states dominate the relationship. Having separate

Table 5. SCM Vehicle Registrations (Form 561) and State and Local Government Employment Statistics for Selected States, by Year

Year	State	State and Local Government Jobs (thousands)	SCM Auto and Light Truck Count	Jobs per Vehicle
1988	Delaware	41.7	6,031	3.9143
	Georgia	394.5	62,578	6.3041
	Iowa	191.0	26,650	7.1670
	Kentucky	204.1	56,742	3.5970
	Maine	72.9	---	---
	Montana	57.0	12,011	4.7456
	North Dakota	54.5	5,285	10.3122
	Oregon	179.6	---	---
	Pennsylvania	522.6	60,425	9.1452
	Rhode Island	47.9	7,105	6.7417
	South Dakota	49.0	4,781	10.2489
	Wyoming	46.5	6,231	7.4627
1992	Delaware	42.7	3,562	11.9876
	Georgia	435.1	67,262	6.4687
	Iowa	200.8	29,410	6.8276
	Kentucky	228.9	64,483	3.5498
	Maine	78.4	---	---
	Montana	60.7	14,607	4.1555
	North Dakota	56.8	5,959	9.5318
	Oregon	197.8	---	---
	Pennsylvania	565.1	63,749	8.8645
	Rhode Island	50.6	7,074	7.1530
	South Dakota	53.9	6,700	8.0448
	Wyoming	49.4	7,643	6.4634
1995	Delaware	44.3	7,637	5.8007
	Iowa	209.4	31,037	6.7468
	Kentucky	246.3	21,348	11.5374
	Maine	79.6	---	---
	Montana	63.7	15,620	4.0781
	North Dakota	61.9	6,207	9.9726
	Oregon	208.8	---	---
	Pennsylvania	592.7	68,387	8.6669
	Rhode Island	50.8	7,370	6.8928
	South Dakota	59.7	6,877	8.6811
	Wyoming	50.7	---	---

relationships for each year did not seem to improve the regression.² Thus, the final choice of the regression model was

$$\log(\text{SCM registration}) = \text{intercept} + \text{slope} \times \log(\text{state and local employment}).$$

The data in Table 5 were used to estimate the intercept and slope in this model. The intercept estimate turns out to be 2.24876 and the slope estimate is 0.944045. The R^2 value is 92.2% (see Figure 2). This model was then used to estimate SCM registration for states not among the twelve "reasonably-accurate" states. This was accomplished using the BLS state and local employment data for all years 1985-95. (The data for

Figure 2. Vehicle registrations for selected states—from Form 561 (dots) and predicted (line) from number of SCM employees.

Washington, DC for years 1985-87 were unavailable; the 1988 value was substituted.) For the twelve reasonably-accurate states, the registration counts reported on the 561 Forms were used as the actual registration estimates, except (as noted above) for Maine and Oregon, Wyoming in 1993 and 1995, Georgia before 1990, and Delaware and Kentucky before 1992. Regression estimates were used in these latter cases. Once the SCM totals by state were calculated for each year, they were distributed to the vehicle types — autos, pickups, vans, sport utility vehicles, and other trucks — using the shares from the Polk NVPP data (1995 data, Table 6). The final SCM registration data by state and vehicle type for 1995 are shown in Table 7.

² Because serial correlation renders the analysis of variance tests approximate, they must be interpreted cautiously. Nevertheless, the test for a year effect had a significance level of 0.67, whereas the significance level for the effect of state and local government jobs was 0.0001; the mean square for the number of jobs was 3.60, while the mean square for the difference with years was only 0.0064.

Table 6. State-Specific Distribution of Vehicles by Vehicle Type, 1995

State	Automobile	Pickup	Sports Utility	Van	Other Truck	Total
AL	63.12%	24.69%	5.75%	6.30%	0.14%	100.00%
AK	44.84%	31.54%	14.68%	8.50%	0.44%	100.00%
AZ	59.94%	23.83%	8.63%	7.35%	0.24%	100.00%
AR	54.50%	32.53%	6.48%	6.35%	0.14%	100.00%
CA	66.05%	18.49%	7.00%	8.27%	0.20%	100.00%
CO	58.39%	21.42%	12.73%	7.24%	0.22%	100.00%
CT	76.21%	10.70%	6.89%	6.05%	0.16%	100.00%
DE	69.39%	14.93%	7.19%	8.30%	0.19%	100.00%
DC	87.48%	3.44%	3.78%	5.21%	0.09%	100.00%
FL	71.37%	14.17%	5.82%	8.49%	0.15%	100.00%
GA	64.10%	21.86%	6.42%	7.50%	0.13%	100.00%
HI	66.07%	18.25%	7.02%	8.55%	0.11%	100.00%
ID	49.99%	33.39%	9.98%	6.32%	0.33%	100.00%
IL	73.69%	11.57%	5.74%	8.82%	0.18%	100.00%
IN	64.91%	20.84%	4.85%	9.20%	0.20%	100.00%
IA	62.92%	23.23%	5.33%	8.26%	0.26%	100.00%
KS	59.69%	25.54%	6.19%	8.34%	0.24%	100.00%
KY	62.59%	25.22%	5.17%	6.85%	0.16%	100.00%
LA	59.36%	27.75%	5.51%	7.22%	0.15%	100.00%
ME	61.86%	24.10%	7.16%	6.68%	0.20%	100.00%
MD	72.48%	12.86%	6.46%	8.07%	0.13%	100.00%
MA	76.33%	9.75%	7.05%	6.70%	0.17%	100.00%
MI	66.86%	16.59%	6.45%	9.94%	0.16%	100.00%
MN	64.34%	19.60%	7.06%	8.73%	0.27%	100.00%
MS	59.19%	29.61%	5.18%	5.86%	0.15%	100.00%
MO	62.55%	23.20%	5.99%	8.06%	0.20%	100.00%
MT	48.53%	35.70%	9.39%	6.02%	0.36%	100.00%
NE	59.42%	25.27%	6.95%	8.15%	0.22%	100.00%
NV	59.95%	22.83%	10.36%	6.59%	0.26%	100.00%
NH	67.09%	17.70%	7.56%	7.42%	0.23%	100.00%
NJ	77.60%	7.55%	7.10%	7.58%	0.17%	100.00%
NM	53.38%	30.56%	9.21%	6.63%	0.22%	100.00%
NY	76.68%	9.19%	6.20%	7.74%	0.18%	100.00%
NC	64.93%	21.49%	6.19%	7.28%	0.11%	100.00%
ND	56.40%	29.66%	6.73%	6.95%	0.26%	100.00%
OH	70.59%	15.48%	4.68%	9.09%	0.17%	100.00%
OK	56.10%	30.58%	6.00%	7.07%	0.24%	100.00%
OR	56.75%	26.16%	8.37%	8.33%	0.39%	100.00%
PA	72.67%	13.21%	6.79%	7.16%	0.18%	100.00%
RI	76.94%	10.87%	5.67%	6.34%	0.18%	100.00%
SC	66.11%	21.07%	5.81%	6.89%	0.12%	100.00%
SD	56.15%	28.36%	7.75%	7.43%	0.31%	100.00%
TN	63.58%	23.60%	5.90%	6.79%	0.12%	100.00%
TX	59.31%	25.47%	7.99%	7.08%	0.14%	100.00%
UT	58.47%	23.09%	10.76%	7.41%	0.28%	100.00%
VT	62.42%	22.07%	8.25%	7.03%	0.23%	100.00%
VA	67.69%	17.66%	6.99%	7.53%	0.14%	100.00%
WA	59.95%	23.19%	8.11%	8.38%	0.37%	100.00%
WV	60.36%	26.22%	7.16%	6.10%	0.15%	100.00%
WI	66.10%	18.00%	6.57%	9.11%	0.22%	100.00%
WY	45.53%	35.98%	12.34%	5.85%	0.30%	100.00%
TOTAL	66.34%	18.91%	6.73%	7.83%	0.19%	100.00%

Table 7. Estimated Number of State, County, and Municipal Vehicles
by Vehicle Type and State

State	Automobile	Pickup	Sports Utility	Van	Other Truck	Total
AL	23,380	9,145	2,129	2,335	52	37,041
AK	3,506	2,466	1,148	665	35	7,820
AZ	19,879	7,903	2,863	2,437	80	33,162
AR	11,344	6,770	1,350	1,322	28	20,815
CA	137,675	38,536	14,581	17,237	412	208,441
CO	18,719	6,865	4,081	2,322	69	32,056
CT	19,827	2,784	1,792	1,573	41	26,017
DE	5,299	1,140	549	634	14	7,637
DC	6,007	236	259	358	6	6,867
FL	70,000	13,896	5,712	8,332	147	98,086
GA	38,492	13,126	3,853	4,503	77	60,051
HI	7,368	2,036	783	954	12	11,153
ID	5,712	3,815	1,140	722	38	11,428
IL	63,233	9,931	4,925	7,569	155	85,812
IN	28,738	9,224	2,148	4,072	89	44,271
IA	19,527	7,209	1,656	2,564	80	31,037
KS	16,368	7,003	1,697	2,287	67	27,422
KY	20,088	8,093	1,661	2,199	52	32,093
LA	24,492	11,450	2,274	2,980	64	41,260
ME	6,835	2,663	792	738	22	11,049
MD	27,335	4,848	2,437	3,044	48	37,712
MA	32,814	4,193	3,032	2,880	71	42,991
MI	48,271	11,980	4,658	7,177	116	72,202
MN	28,532	8,690	3,131	3,873	118	44,344
MS	14,898	7,453	1,305	1,475	38	25,169
MO	26,080	9,672	2,499	3,359	85	41,696
MT	7,581	5,576	1,467	940	56	15,620
NE	10,742	4,569	1,256	1,473	39	18,078
NV	6,883	2,621	1,189	757	30	11,481
NH	6,371	1,681	718	705	22	9,496
NJ	48,430	4,711	4,431	4,730	104	62,407
NM	9,643	5,520	1,664	1,198	39	18,065
NY	113,835	13,644	9,210	11,486	271	148,445
NC	39,760	13,159	3,791	4,456	70	61,236
ND	3,501	1,841	418	431	16	6,207
OH	57,283	12,560	3,795	7,377	136	81,151
OK	16,608	9,053	1,777	2,094	71	29,603
OR	15,584	7,184	2,299	2,286	107	27,460
PA	49,695	9,033	4,640	4,893	126	68,387
RI	5,670	801	418	467	13	7,370
SC	22,702	7,236	1,995	2,366	41	34,340
SD	3,861	1,951	533	511	21	6,877
TN	26,264	9,748	2,438	2,806	52	41,308
TX	88,966	38,210	11,982	10,624	211	149,994
UT	10,391	4,104	1,911	1,316	50	17,772
VT	3,559	1,258	470	401	13	5,702
VA	36,784	9,596	3,799	4,092	74	54,345
WA	28,531	11,037	3,861	3,990	175	47,595
WV	9,608	4,175	1,140	972	24	15,919
WI	29,375	7,999	2,920	4,049	97	44,440
WY	3,286	2,597	890	422	22	7,217
Total	1,379,336	400,995	141,467	162,452	3,897	2,088,147

3.3 Federal Vehicle Data

Data on all Federal vehicles are maintained by the GSA and published in the *Federal Motor Vehicle Fleet Report* [9]. Unfortunately, the GSA no longer maintains the information on geographic location of the Federal fleets. To determine how many Federal vehicles are registered in which states, we used the state distribution reported by GSA (Table 8) [8]. For example, 12.07% of all Federal automobiles are estimated by GSA to be registered (or operated) in California.

GSA categorizes vehicles into eight vehicle types: (1) sedans, (2) station wagons, (3) ambulances, (4) buses, (5) four-tire two-wheel-drive (4x2) trucks with a GVWR of 8,500 lbs. or less, (6) four-tire four-wheel-drive trucks (4x4) with a GVWR of 8,500 lbs. or less, (7) medium trucks, and (8) heavy trucks. For the purposes of our project, the sedans and station wagons were combined into the "auto" category; and ambulances, 4x2 trucks 8,500 lbs. GVWR or less, and 4x4 trucks 8,500 lbs. GVWR or less were combined into the light truck category. Before distributing trucks in this category into the four truck types, we assumed that the distribution of Federal trucks by type in a given state is similar to that of private and commercial trucks in the same state. State-specific truck distribution by type was derived from the Polk NVPP [5] data (Table 8). Based on this NVPP [5] distribution, we assumed, for example, that almost 67% of the Federal light trucks operated in Alabama are pickup trucks; 15.6% sport utility vehicles; 17.1% vans; and less than 0.4% other types of light trucks (Table 8).

The GSA data [9] are available for each fiscal year from 1985 to 1994. The 1995 data were estimated using the annual growth rates of automobiles and light trucks observed in the Polk NVPP [5] data. The size of automobile registration increased by 1.02% from 1994 to 1995 while the truck registration grew by 5.10%. Applying these growth rates to the number of Federally-owned cars and light trucks in 1994, we estimated the number of Federally-owned automobiles to be 107,725 ($=106,637 \times 1.0102$) and the number of Federally-owned light trucks to be 337,471 ($=321,095 \times 1.051$).

Table 8. Distribution of Federally-Owned Automobiles and Light Trucks by State

State	Automobiles	Light Trucks
AL	1.59%	1.43%
AK	0.48%	0.89%
AZ	2.12%	2.66%
AR	0.89%	0.80%
CA	12.07%	12.92%
CO	1.66%	2.54%
CT	0.84%	1.27%
DE	0.26%	0.22%
DC	2.42%	1.05%
FL	4.50%	4.31%
GA	2.37%	2.09%
HI	0.49%	0.50%
ID	0.63%	1.42%
IL	3.34%	3.03%
IN	1.31%	1.28%
IA	0.66%	0.95%
KS	0.76%	0.92%
KY	1.50%	1.25%
LA	1.54%	1.40%
ME	0.41%	0.35%
MD	2.44%	1.97%
MA	2.52%	1.97%
MI	2.48%	2.52%
MN	1.42%	1.57%
MS	1.26%	1.00%
MO	2.89%	1.34%
MT	0.83%	1.42%
NE	1.02%	0.79%
NV	1.08%	1.83%
NH	0.56%	0.32%
NJ	2.08%	2.90%
NM	1.28%	1.91%
NY	7.90%	5.12%
NC	1.71%	1.53%
ND	0.56%	0.55%
OH	2.92%	2.55%
OK	1.42%	1.38%
OR	1.29%	2.56%
PA	4.76%	3.58%
RI	0.22%	0.32%
SC	1.49%	1.39%
SD	0.53%	0.75%
TN	3.15%	2.71%
TX	5.92%	6.57%
UT	0.87%	1.25%
VT	0.31%	0.14%
VA	2.39%	2.51%
WA	2.63%	3.54%
WV	0.82%	0.57%
WI	1.04%	1.35%
WY	0.36%	0.80%
Total	100.00%	100.00%

According to the "state" distribution (Table 8) and the "truck-type" distribution (Table 9), we were able to categorize the total number of Federally-owned vehicles by state and into four truck types (Table 10). The 1995 data are used here to illustrate this approach. For example, there were an estimated 337,471 Federally-owned light trucks registered in 1995. Based on the "state" distribution (Table 8), we assumed that 1.43% of these light trucks are registered in Alabama. Thus, an estimated 4,826 ($= 337,471 \times 1.43\%$) Federally-owned light trucks were registered in Alabama in 1995, of which 66.94% are pickup trucks (Table 9). That means there are 3,230 ($= 4,826 \times 0.6694$) Federally-owned light trucks registered in Alabama in 1995 (Table 10). The estimated 1995 registration of Federal vehicles by state and vehicle type for 1995 are in Table 10.

As noted previously, state-specific vehicle registrations estimated from the Polk's NVPP [5] data include SCM vehicles. To avoid double counting SCM vehicles (Table 7), they were subtracted from the estimates based on NVPP [5] data (Table 4). The remainder is the number of private and commercial vehicle registrations (Table 11).

Since the total numbers of private and commercial vehicle registration reported by individual states are believed by the FHWA to be accurate, the concern was on the split between the automobile and the four light truck categories. The total numbers of light-duty vehicle registration by state were constrained to remain identical to those reported in previous *Highway Statistics* (from 1985 to 1994) [4]. With this guiding principal, these "control" totals were disaggregated to five vehicle type categories (i.e., auto plus four truck classes) based on the distribution observed in the NVPP's [5] private and commercial vehicles (Table 10). For example, according to the Polk's NVPP [5] data, 63.12% of the 1995 private and commercial vehicles registered in Alabama are automobiles, 24.69% pickup trucks, 5.75% utility vehicles, 6.30% vans, and 0.14% other light trucks (Table 10). The State of Alabama reported in its Form 561 that there were 3,316,350 light-duty vehicles registered in 1995, thus, we estimated that 2,093,280 ($= 3,316,350 \times 63.12\%$) automobiles were registered in Alabama in 1995 (Table 11). The complete estimates of private and commercial vehicles, Federally-owned vehicles and SCM vehicles in 1995 are tabulated in Table 12.

Table 9. State-Specific Distribution of Trucks by Truck Type, 1995

State	Pickup	Sports Utility	Van	Other Truck	Total
AL	66.94%	15.58%	17.09%	0.38%	100.00%
AK	57.17%	26.62%	15.41%	0.80%	100.00%
AZ	59.49%	21.56%	18.35%	0.60%	100.00%
AR	71.49%	14.25%	13.96%	0.30%	100.00%
CA	54.46%	20.60%	24.36%	0.58%	100.00%
CO	51.48%	30.60%	17.41%	0.52%	100.00%
CT	44.98%	28.95%	25.41%	0.66%	100.00%
DE	48.78%	23.50%	27.12%	0.60%	100.00%
DC	27.50%	30.17%	41.61%	0.72%	100.00%
FL	49.48%	20.34%	29.66%	0.52%	100.00%
GA	60.89%	17.87%	20.89%	0.36%	100.00%
HI	53.79%	20.69%	25.20%	0.33%	100.00%
ID	66.75%	19.95%	12.64%	0.66%	100.00%
IL	43.98%	21.81%	33.52%	0.69%	100.00%
IN	59.38%	13.83%	26.21%	0.57%	100.00%
IA	62.64%	14.38%	22.28%	0.70%	100.00%
KS	63.36%	15.35%	20.69%	0.60%	100.00%
KY	67.41%	13.83%	18.32%	0.43%	100.00%
LA	68.28%	13.56%	17.77%	0.38%	100.00%
ME	63.18%	18.78%	17.52%	0.52%	100.00%
MD	46.72%	23.48%	29.33%	0.46%	100.00%
MA	41.20%	29.80%	28.30%	0.70%	100.00%
MI	50.06%	19.46%	29.99%	0.48%	100.00%
MN	54.96%	19.80%	24.49%	0.75%	100.00%
MS	72.56%	12.70%	14.36%	0.37%	100.00%
MO	61.94%	16.01%	21.51%	0.54%	100.00%
MT	69.36%	18.25%	11.69%	0.70%	100.00%
NE	62.28%	17.12%	20.08%	0.53%	100.00%
NV	57.02%	25.87%	16.46%	0.66%	100.00%
NH	53.78%	22.96%	22.56%	0.70%	100.00%
NJ	33.71%	31.70%	33.84%	0.74%	100.00%
NM	65.55%	19.76%	14.22%	0.46%	100.00%
NY	39.42%	26.61%	33.19%	0.78%	100.00%
NC	61.27%	17.65%	20.75%	0.33%	100.00%
ND	68.04%	15.43%	15.94%	0.59%	100.00%
OH	52.62%	15.90%	30.91%	0.57%	100.00%
OK	69.67%	13.67%	16.11%	0.55%	100.00%
OR	60.49%	19.36%	19.25%	0.90%	100.00%
PA	48.32%	24.82%	26.18%	0.68%	100.00%
RI	47.12%	24.59%	27.50%	0.79%	100.00%
SC	62.18%	17.14%	20.33%	0.35%	100.00%
SD	64.68%	17.68%	16.94%	0.70%	100.00%
TN	64.80%	16.20%	18.65%	0.34%	100.00%
TX	62.61%	19.63%	17.41%	0.35%	100.00%
UT	55.60%	25.90%	17.83%	0.67%	100.00%
VT	58.72%	21.95%	18.71%	0.62%	100.00%
VA	54.65%	21.63%	23.30%	0.42%	100.00%
WA	57.90%	20.25%	20.93%	0.92%	100.00%
WV	66.15%	18.07%	15.40%	0.38%	100.00%
WI	53.09%	19.38%	26.87%	0.65%	100.00%
WY	66.07%	22.65%	10.73%	0.55%	100.00%
Total trucks	56.19%	20.00%	23.27%	0.55%	100.00%

Table 10. Estimated Number of Federally-Owned Vehicles by Vehicle Type and State, 1995

State	Automobile	Pickup	Sports Utility	Van	Other	Total
AL	1,710	3,230	752	825	18	6,536
AK	517	1,714	798	462	24	3,516
AZ	2,288	5,347	1,937	1,649	54	11,274
AR	953	1,932	385	377	8	3,657
CA	13,007	23,748	8,986	10,622	254	56,616
CO	1,789	4,406	2,619	1,490	45	10,348
CT	906	1,931	1,243	1,091	28	5,201
DE	279	368	177	204	5	1,033
DC	2,607	975	1,070	1,476	26	6,154
FL	4,850	7,198	2,958	4,315	76	19,397
GA	2,551	4,289	1,259	1,471	25	9,595
HI	526	910	350	426	6	2,218
ID	679	3,189	953	604	32	5,457
IL	3,595	4,502	2,232	3,431	70	13,831
IN	1,414	2,568	598	1,134	25	5,739
IA	707	2,013	462	716	22	3,921
KS	816	1,959	475	640	19	3,908
KY	1,621	2,855	586	776	18	5,855
LA	1,662	3,227	641	840	18	6,387
ME	439	746	222	207	6	1,620
MD	2,632	3,102	1,559	1,948	31	9,273
MA	2,719	2,743	1,983	1,884	47	9,376
MI	2,672	4,256	1,655	2,550	41	11,174
MN	1,534	2,907	1,048	1,296	40	6,824
MS	1,362	2,457	430	486	13	4,748
MO	3,111	2,795	722	971	25	7,623
MT	898	3,327	875	561	33	5,694
NE	1,095	1,664	457	537	14	3,767
NV	1,166	3,530	1,602	1,019	41	7,358
NH	603	573	245	240	7	1,668
NJ	2,240	3,303	3,106	3,316	73	12,038
NM	1,380	4,217	1,271	915	30	7,813
NY	8,514	6,807	4,595	5,730	135	25,780
NC	1,840	3,165	912	1,072	17	7,006
ND	605	1,257	285	294	11	2,452
OH	3,142	4,526	1,368	2,658	49	11,743
OK	1,529	3,252	638	752	25	6,197
OR	1,391	5,218	1,670	1,661	78	10,017
PA	5,125	5,836	2,998	3,162	82	17,203
RI	242	501	262	293	8	1,306
SC	1,602	2,922	806	955	17	6,302
SD	568	1,637	448	429	18	3,099
TN	3,396	5,932	1,483	1,708	31	12,550
TX	6,372	13,891	4,356	3,862	77	28,558
UT	939	2,343	1,091	751	28	5,153
VT	336	271	101	86	3	797
VA	2,570	4,626	1,831	1,972	36	11,035
WA	2,831	6,924	2,422	2,503	110	14,790
WV	888	1,270	347	296	7	2,808
WI	1,118	2,425	885	1,227	30	5,685
WY	392	1,794	615	291	15	3,107
Total	107,726	186,580	70,771	78,182	1,948	445,207

Table 11. Registrations of Private and Commercial Light-Duty Vehicles, 1995

State	Auto	Pickup	Utility	Van	Other Truck	Total
AL	2,093,282	818,772	190,589	209,043	4,664	3,316,350
AK	229,836	161,647	75,270	43,565	2,274	512,592
AZ	1,665,794	662,232	239,936	204,223	6,726	2,778,911
AR	857,719	511,894	102,046	99,987	2,147	1,573,793
CA	14,146,804	3,959,775	1,498,283	1,771,169	42,316	21,418,347
CO	1,573,420	577,077	342,992	195,147	5,838	2,694,473
CT	1,950,869	273,947	176,332	154,794	4,024	2,559,966
DE	387,330	83,343	40,157	46,339	1,033	558,202
DC	199,856	7,865	8,629	11,901	207	228,458
FL	7,022,649	1,394,155	573,005	835,855	14,740	9,840,404
GA	3,718,933	1,268,184	372,227	435,066	7,436	5,801,847
HI	515,562	142,436	54,788	66,734	862	780,382
ID	484,042	323,301	96,621	61,199	3,205	968,368
IL	6,339,288	995,603	493,706	758,781	15,531	8,602,909
IN	3,111,843	998,794	232,635	440,878	9,601	4,793,750
IA	1,650,437	609,339	139,931	216,718	6,795	2,623,220
KS	1,151,201	492,551	119,357	160,833	4,681	1,928,622
KY	1,548,371	623,791	128,003	169,531	3,978	2,473,674
LA	1,848,028	863,916	171,602	224,883	4,814	3,113,243
ME	566,795	220,821	65,641	61,241	1,806	916,304
MD	2,541,541	450,756	226,574	283,006	4,471	3,506,348
MA	3,362,801	429,734	310,773	295,186	7,313	4,405,807
MI	4,906,184	1,217,624	473,402	729,419	11,794	7,338,423
MN	2,368,631	721,385	259,925	321,498	9,829	3,681,268
MS	1,229,868	615,235	107,710	121,770	3,130	2,077,713
MO	2,533,413	939,590	242,792	326,316	8,254	4,050,365
MT	432,832	318,405	83,759	53,684	3,191	891,871
NE	795,204	338,197	92,955	109,023	2,891	1,338,270
NV	590,862	225,031	102,086	64,947	2,609	985,535
NH	720,436	190,098	81,158	79,728	2,464	1,073,885
NJ	4,382,961	426,380	401,023	428,092	9,383	5,647,838
NM	752,157	430,567	129,805	93,432	3,051	1,409,011
NY	7,523,191	901,728	608,667	759,063	17,878	9,810,528
NC	3,475,985	1,150,375	331,426	389,544	6,145	5,353,475
ND	340,257	178,943	40,580	41,923	1,557	603,260
OH	6,612,747	1,449,960	438,116	851,637	15,685	9,368,145
OK	1,499,118	817,193	160,394	188,983	6,402	2,672,092
OR	1,512,151	697,085	223,085	221,832	10,365	2,664,518
PA	5,827,668	1,059,239	544,133	573,820	14,811	8,019,671
RI	518,608	73,253	38,232	42,757	1,226	674,075
SC	1,787,874	569,853	157,103	186,330	3,222	2,704,382
SD	363,061	183,409	50,138	48,036	1,976	646,621
TN	3,320,507	1,232,493	308,219	354,805	6,514	5,222,538
TX	7,595,443	3,262,149	1,022,961	907,047	18,040	12,805,639
UT	794,279	313,704	146,106	100,599	3,795	1,358,482
VT	290,717	102,765	38,414	32,741	1,091	465,729
VA	3,640,075	949,645	375,921	404,888	7,334	5,377,862
WA	2,605,423	1,007,907	352,570	364,404	16,017	4,346,321
WV	794,925	345,371	94,346	80,394	1,995	1,317,031
WI	2,457,980	669,304	244,360	338,763	8,155	3,718,562
WY	260,757	206,072	70,640	33,482	1,713	572,663
Total	126,899,713	36,462,893	12,879,123	14,995,037	354,978	191,591,743

Table 12. Final Private, Federal, and SCM Light-Duty Vehicle Registrations by State and Type, 1995

State	Private & Commercial					Federal					State, County, and Municipal					1995 Total
	Auto	Pickup	Utility	Van	Other Trk	Auto	Pickup	Utility	Van	Other Trk	Auto	Pickup	Utility	Van	Other Trk	
AL	2,093,282	818,772	190,589	209,043	4,664	1,710	3,230	752	825	18	23,380	9,145	2,129	2,335	52	3,359,927
AK	229,836	161,647	75,270	43,565	2,274	517	1,714	798	462	24	3,506	2,466	1,148	665	35	523,928
AZ	1,665,794	662,232	239,936	204,223	6,726	2,288	5,347	1,937	1,649	54	19,879	7,903	2,863	2,437	80	2,823,347
AR	857,719	511,894	102,046	99,987	2,147	953	1,932	385	377	8	11,344	6,770	1,350	1,322	28	1,598,265
CA	14,146,804	3,959,775	1,498,283	1,771,169	42,316	13,007	23,748	8,986	10,622	254	137,675	38,536	14,581	17,237	412	21,683,404
CO	1,573,420	577,077	342,992	195,147	5,838	1,789	4,406	2,619	1,490	45	18,719	6,865	4,081	2,322	69	2,736,877
CT	1,950,869	273,947	176,332	154,794	4,024	906	1,931	1,243	1,091	28	19,827	2,784	1,792	1,573	41	2,591,184
DE	387,330	83,343	40,157	46,339	1,033	279	368	177	204	5	5,299	1,140	549	634	14	566,872
DC	199,856	7,865	8,629	11,901	207	2,607	975	1,070	1,476	26	6,007	236	259	358	6	241,479
FL	7,022,649	1,394,155	573,005	835,855	14,740	4,850	7,198	2,958	4,315	76	70,000	13,896	5,712	8,332	147	9,957,887
GA	3,718,933	1,268,184	372,227	435,066	7,436	2,551	4,289	1,259	1,471	25	38,492	13,126	3,853	4,503	77	5,871,493
HI	515,562	142,436	54,788	66,734	862	526	910	350	426	6	7,368	2,036	783	954	12	793,753
ID	484,042	323,301	96,621	61,199	3,205	679	3,189	953	604	32	5,712	3,815	1,140	722	38	985,253
IL	6,339,288	995,603	493,706	758,781	15,531	3,595	4,502	2,232	3,431	70	63,233	9,931	4,925	7,569	155	8,702,552
IN	3,111,843	998,794	232,635	440,878	9,601	1,414	2,568	598	1,134	25	28,738	9,224	2,148	4,072	89	4,843,760
IA	1,650,437	609,339	139,931	216,718	6,795	707	2,013	462	716	22	19,527	7,209	1,656	2,564	80	2,658,178
KS	1,151,201	492,551	119,357	160,833	4,681	816	1,959	475	640	19	16,368	7,003	1,697	2,287	67	1,959,952
KY	1,548,371	623,791	128,003	169,531	3,978	1,621	2,855	586	776	18	20,088	8,093	1,661	2,199	52	2,511,622
LA	1,848,028	863,916	171,602	224,883	4,814	1,662	3,227	641	840	18	24,492	11,450	2,274	2,980	64	3,160,890
ME	566,795	220,821	65,641	61,241	1,806	439	746	222	207	6	6,835	2,663	792	738	22	928,973
MD	2,541,541	450,756	226,574	283,006	4,471	2,632	3,102	1,559	1,948	31	27,335	4,848	2,437	3,044	48	3,553,333
MA	3,362,801	429,734	310,773	295,186	7,313	2,719	2,743	1,983	1,884	47	32,814	4,193	3,032	2,880	71	4,458,174
MI	4,906,184	1,217,624	473,402	729,419	11,794	2,672	4,256	1,655	2,550	41	48,271	11,980	4,658	7,177	116	7,421,799
MN	2,368,631	721,385	259,925	321,498	9,829	1,534	2,907	1,048	1,296	40	28,532	8,690	3,131	3,873	118	3,732,436
MS	1,229,868	615,235	107,710	121,770	3,130	1,362	2,457	430	486	13	14,898	7,453	1,305	1,475	38	2,107,630
MO	2,533,413	939,590	242,792	326,316	8,254	3,111	2,795	722	971	25	26,080	9,672	2,499	3,359	85	4,099,684
MT	432,832	318,405	83,759	53,684	3,191	898	3,327	875	561	33	7,581	5,576	1,467	940	56	913,185
NE	795,204	338,197	92,955	109,023	2,891	1,095	1,664	457	537	14	10,742	4,569	1,256	1,473	39	1,360,115
NV	590,862	225,031	102,086	64,947	2,609	1,166	3,530	1,602	1,019	41	6,883	2,621	1,189	757	30	1,004,374
NH	720,436	190,098	81,158	79,728	2,464	603	573	245	240	7	6,371	1,681	718	705	22	1,085,049
NJ	4,382,961	426,380	401,023	428,092	9,383	2,240	3,303	3,106	3,316	73	48,430	4,711	4,431	4,730	104	5,722,283
NM	752,157	430,567	129,805	93,432	3,051	1,380	4,217	1,271	915	30	9,643	5,520	1,664	1,198	39	1,434,889
NY	7,523,191	901,728	608,667	759,063	17,878	8,514	6,807	4,595	5,730	135	113,835	13,644	9,210	11,486	271	9,984,753
NC	3,475,985	1,150,375	331,426	389,544	6,145	1,840	3,165	912	1,072	17	39,760	13,159	3,791	4,456	70	5,421,717
ND	340,257	178,943	40,580	41,923	1,557	605	1,257	285	294	11	3,501	1,841	418	431	16	611,919
OH	6,612,747	1,449,960	438,116	851,637	15,685	3,142	4,526	1,368	2,658	49	57,283	12,560	3,795	7,377	136	9,461,039
OK	1,499,118	817,193	160,394	188,983	6,402	1,529	3,252	638	752	25	16,608	9,053	1,777	2,094	71	2,707,892
OR	1,512,151	697,085	223,085	221,832	10,365	1,391	5,218	1,670	1,661	78	15,584	7,184	2,299	2,286	107	2,701,995
PA	5,827,668	1,059,239	544,133	573,820	14,811	5,125	5,836	2,998	3,162	82	49,695	9,033	4,640	4,893	126	8,105,261
RI	518,608	73,253	38,232	42,757	1,226	242	501	262	293	8	5,670	801	418	467	13	682,751
SC	1,787,874	569,853	157,103	186,330	3,222	1,602	2,922	806	955	17	22,702	7,236	1,995	2,366	41	2,745,024
SD	363,061	183,409	50,138	48,036	1,976	568	1,637	448	429	18	3,861	1,951	533	511	21	656,597
TN	3,320,507	1,232,493	308,219	354,805	6,514	3,396	5,932	1,483	1,708	31	26,264	9,748	2,438	2,806	52	5,276,396
TX	7,595,443	3,262,149	1,022,961	907,047	18,040	6,372	13,891	4,356	3,862	77	88,966	38,210	11,982	10,624	211	12,984,191
UT	794,279	313,704	146,106	100,599	3,795	939	2,343	1,091	751	28	10,391	4,104	1,911	1,316	50	1,381,407
VT	290,717	102,765	38,414	32,741	1,091	336	271	101	86	3	3,559	1,258	470	401	13	472,228
VA	3,640,075	949,645	375,921	404,888	7,334	2,570	4,626	1,831	1,972	36	36,784	9,596	3,799	4,092	74	5,443,242
WA	2,605,423	1,007,907	352,570	364,404	16,017	2,831	6,924	2,422	2,503	110	28,531	11,037	3,861	3,990	175	4,408,706
WV	794,925	345,371	94,346	80,394	1,995	888	1,270	347	296	7	9,608	4,175	1,140	972	24	1,335,758
WI	2,457,980	669,304	244,360	338,763	8,155	1,118	2,425	885	1,227	30	29,375	7,999	2,920	4,049	97	3,768,687
WY	260,757	206,072	70,640	33,482	1,713	392	1,794	615	291	15	3,286	2,597	890	422	22	582,987
Total	126,899,713	36,462,89	12,879,123	14,995,037	354,978	107,726	186,580	70,771	78,182	1,948	1,379,336	400,995	141,467	162,452	3,897	194,125,097

4. Vehicle Miles Traveled (VMT) Data

Similar to the vehicle registration data, FHWA regards the estimate of total VMT at the state level to be relatively accurate, but not the VMT by vehicle type. After controlling for the state-specific vehicle registration by vehicle type (Table 12) and the state-specific total travel by all of these light-duty vehicles, we determine the distribution of total VMT among five vehicle types (i.e., auto plus four truck types). This implies that the **absolute** number of miles driven by each type of vehicles is less relevant than the use of each vehicle type **relative** to other types.

4.1 Data Sources

Research has suggested that personal vehicles are used at a rate different from commercial vehicles, and different from publicly-owned vehicles [10]. Furthermore, different types of personal vehicles are sometimes used for different purposes and thus lead to different VMT. To better quantify the relative use of different vehicle types, data from two major surveys were used — the Nationwide Personal Transportation Study (NPTS) [11] and the Truck Inventory and Use Survey (TIUS) [12]. The NPTS [11] targets personal travel and household vehicles. As a result, it was used to obtain information on personal automobiles. On the other hand, TIUS [12] collects data on the use and physical characteristics of private and commercial trucks, but not publicly-owned trucks. As a result, TIUS [12] data were used to obtain statistics on private and commercial truck use. However, it is recognized that the NPTS [11] and the TIUS [12] surveys overlap in the area of personal light trucks.

Since none of the above surveys collects information on publicly-owned vehicles, statistics reported in *Fleet Vehicles in the United States* [10] were used to establish a statistical relationship between government and commercial vehicle travel. With these three data sources, the only data gap was for commercial **automobile** travel.

4.2 VMT Index Matrix

A matrix was developed that contains the **relative** usage by vehicle type and vehicle age. This matrix is called the VMT index matrix. First, the average annual VMT per vehicle was generated for **personal** autos, pickups, vans/utilities, and other trucks. These calculations were done

separately for different vehicle ages, using the 1990 NPTS [11] data. Since the most recent available NPTS [11] data are for the year 1990, the 1990 NPTS [11] statistics were "adjusted" to be comparable to the 1992 truck statistics that were to be generated from the 1992 TIUS [12]. The adjustment was accomplished by using the VMT growth rates reported in *Highway Statistics* [4]. According to that publication, the amount of driving with a single automobile increased by 5.2% between 1990 and 1992, and increased 0.9% for two-axle four-tire trucks. Due to the lack of appropriate data, these growth rates do not vary with vehicle age, indicating that the changes in the amount of driving from one year to the next does not vary by vehicle age. The estimated average annual miles driven on an individual **personal** vehicle are reported in Table 13 for 1990 and 1992.

The average annual VMT per vehicle was calculated for different age vehicles for **personal** pickups, vans and utilities, and other light-duty trucks (less than 10,000 lbs. GVWR); and for **commercial** pickups, vans and utilities, and other light-duty trucks. These calculations were done using the 1992 TIUS [12] data (Table 14). Based on the limited findings from *Fleet Vehicles in the United States* [10], the average annual miles traveled per **government** truck, categorized by truck age and type, were calculated to be 52.26% of the miles of a comparable commercial truck (calculated from the 1992 TIUS [12] data).

Since the NPTS [11] and TIUS [12] surveys were conducted with different survey instruments by different institutes, the compatibility of their data would have been an issue. To insure maximum data compatibility, the overlapping area of data (i.e., on personal trucks) between the NPTS [11] and TIUS [12] surveys was used as an "anchor." Based on the 1992 TIUS [12], a typical pickup truck that was used for personal purposes, regardless of its age, was driven about 11,305 miles in 1992 (Table 14). The comparable 1992 number based on the 1990 NPTS [11] data was 12,745 miles (Table 13). These estimates suggest that TIUS' [12] estimates are 89% ($= 11,305/12,745$) those estimated using the 1990 NPTS [11]. Consequently, we assumed that the NPTS estimates are systematically higher than its TIUS [12] counterparts, and thus that they require to be "adjusted" accordingly so that data compatibility is maximized. Specifically, the 1992 NPTS' [11] VMT estimates for **automobiles** were adjusted by a factor of 0.89.

Table 13. Average Annual VMT per Vehicle by Vehicle Type and Age for Household Vehicles

Vehicle Type	Age of Vehicle (years),										Total
	0-1	2	3	4	5	6	7	8	9	10+	
1990 NPTS											
Auto	16,967	16,232	14,434	13,781	12,567	12,893	12,487	12,266	11,158	9,259	12,503
Van	18,486	17,953	14,990	14,307	13,381	13,572	11,635	14,322	11,291	11,156	14,520
Pickup	16,768	17,442	15,788	12,668	13,994	14,414	12,459	14,008	13,211	8,566	12,637
Other Truck	44,299	23,794	7,021	11,067	35,029	20,772	9,196	39,415	42,309	12,139	14,951
1990 NPTS Adjusted to 1992 Levels											
Auto	17,855	17,082	15,189	14,502	13,224	13,567	13,140	12,908	11,742	9,744	13,157
Van	18,645	18,107	15,119	14,430	13,496	13,689	11,735	14,445	11,388	11,252	14,645
Pickup	16,912	17,592	15,924	12,777	14,115	14,538	12,566	14,128	13,325	8,640	12,745
Other Truck	44,679	23,998	7,081	11,162	35,330	20,950	9,275	39,754	42,672	12,243	15,080

Table 14. Average Annual VMT per Vehicle by Truck Type and Age

Vehicle Type	Age of Vehicle (years)										TOTAL
	0-1	2	3	4	5	6	7	8	9	10+	
Commercial Use											
Pickup	19,832	22,041	19,320	18,098	17,050	16,090	13,392	13,975	13,440	9,249	15,295
Van/Utility	22,319	20,337	21,227	19,351	16,726	17,475	13,835	14,833	13,221	10,755	17,548
Other Truck	19,224	18,898	18,294	18,558	14,671	14,905	16,255	12,806	11,962	6,551	11,545
Personal Use											
Pickup	14,878	15,412	14,664	14,267	13,558	12,722	12,057	11,470	10,981	7,636	11,305
Van/Utility	15,630	14,432	13,963	13,965	14,255	12,699	12,265	11,090	11,208	7,470	12,601
Other Truck	17,155	9,985	8,592	9,380	11,544	8,026	6,598	8,778	9,071	3,285	4,621
Government Use ³											
Pickup	10,363	11,518	10,096	9,457	8,910	8,408	6,998	7,303	7,023	4,833	7,992
Van	11,663	10,627	11,092	10,112	8,740	9,132	7,229	7,751	6,909	5,620	9,170
Other Truck	10,046	9,875	9,560	9,698	7,667	7,788	8,494	6,692	6,251	3,423	6,033

³Estimated as 52.26% of commercial use VMT based on data from *Fleet Vehicles in the United States*, [8].

Now, with both TIUS [12] and NPTS [11] estimates on a relatively compatible basis, we indexed all of the usage estimates to that of a typical one-year old pickup truck used for personal purposes. Note that the selection of this index number is irrelevant for the purpose of estimating a VMT distribution among five vehicle types. From Table 14, we observe that a typical one-year old pickup truck used for personal purposes was driven about 14,878 miles in 1992. Thus, the relative use of a comparable commercial vehicle was 1.33 ($= 19,832 \text{ miles} / 14,878 \text{ miles}$), signifying that a commercial vehicle was driven 33% more than a comparable personal vehicle. Proceeding in a similar manner, we obtained the 1992 VMT index matrix (Table 15).

With our goal being the development of a VMT distribution for each of the years from 1985 through 1995, using the 1992 VMT matrix for years not immediately adjacent to 1992 may not accurately reflect the VMT patterns of those years. Thus, a VMT matrix based on the 1987 TIUS [12] data was developed to estimate VMT distribution for each of the earlier years (i.e., from 1985 through 1989). The rationale was that the 1987 data may better represent the travel patterns from 1985 to 1989, while the 1992 data better represent the patterns from 1990 to 1995. Ideally, if the 1997 TIUS [12] data were available, they would have been used to estimate the 1995 VMT distribution. We assumed that the travel patterns of light trucks did not vary significantly during the five-year period that is "centered" by a year when the TIUS [12] was conducted.

The 1990 NPTS [11] data were used to estimate relative usage of personal automobiles throughout the years because the earlier survey in 1983 had a significantly smaller sample size than the 1990 survey and was considered less reliable. To be used in conjunction with the 1987 TIUS [12] data, the 1990 NPTS [11] data were "adjusted" to the 1987 travel level. The adjustment factor was again based on the average annual VMTs of automobiles that are reported in *Highway Statistics* [4]. The VMT index for automobiles was interpolated linearly between 1987 and 1992 (Table 16). The SAS programs for the 1995 VMT share calculation are listed in Appendix B, Part 2, and the output of these programs is in Appendix C, Part 2.

Table 15. Index of Average Annual VMT per Vehicle by Vehicle Type and Age, 1992

Vehicle Type	Age of Vehicle (years)										Total
	0-1	2	3	4	5	6	7	8	9	10+	
Auto	1.06	1.02	0.91	0.86	0.79	0.81	0.78	0.77	0.70	0.58	0.78
Business Use											
Pickup	1.33	1.48	1.30	1.22	1.15	1.08	0.90	0.94	0.90	0.62	1.03
Van/Utility	1.50	1.37	1.43	1.30	1.12	1.17	0.93	1.00	0.89	0.72	1.18
Other Truck	1.29	1.27	1.23	1.25	0.99	1.00	1.09	0.86	0.80	0.44	0.78
Personal Use											
Pickup	1.00	1.04	0.99	0.96	0.91	0.86	0.81	0.77	0.74	0.51	0.76
Van/Utility	1.05	0.97	0.94	0.94	0.96	0.85	0.82	0.75	0.75	0.50	0.85
Other Truck	1.15	0.67	0.58	0.63	0.78	0.54	0.44	0.59	0.61	0.22	0.31
Government Use											
Pickup	0.70	0.77	0.68	0.64	0.60	0.57	0.47	0.49	0.47	0.32	0.54
Van/Utility	0.78	0.71	0.75	0.68	0.59	0.61	0.49	0.52	0.46	0.38	0.62
Other Truck	0.68	0.66	0.64	0.65	0.52	0.52	0.57	0.45	0.42	0.23	0.41

In order to apply this VMT matrix to the state-specific vehicle registration data, a number of steps were undertaken. First, the total vehicle registrations were categorized into the vehicle age groups outlined in Table 16, based on the vehicle age distribution observed in Polk's NVPP [5] data. Second, publicly-owned automobiles were combined with personal automobiles because data on publicly-owned automobiles were not available on the use of these vehicles. This step implicitly assumes that government automobiles were driven at a rate similar to that of personal automobiles. Third, vans and utility vehicles were combined into one category to be conform with the VMT matrix. Fourth, the distribution of light-trucks by usage and truck type was generated from the 1992 TIUS [12]. This distribution was then used to separate the number of **personal** trucks from the number of *commercial* trucks by truck type. Table 17 presents the vehicle stock breakdown that conforms to the VMT matrix.

By multiplying the VMT indexes (Table 16) and the corresponding vehicle registrations (Table 17), we calculated two VMT indicators, one for automobiles and one for light trucks. Based on these indicators, we were able to establish a statistical relationship between automobile and light truck use for each of the years from 1985 to 1995. The results of this effort are shown in Figure 3.

Table 16. Index of Average Annual VMT per Vehicle by Vehicle Type and Age, 1985-95

	Age of Vehicle (years)									
	0-1	2	3	4	5	6	7	8	9	10+
Automobiles										
1985-87	0.94	0.90	0.80	0.76	0.69	0.71	0.69	0.68	0.62	0.51
1988	0.96	0.92	0.82	0.78	0.71	0.73	0.71	0.69	0.63	0.52
1989	0.99	0.94	0.84	0.80	0.73	0.75	0.73	0.71	0.65	0.54
1990	1.01	0.97	0.86	0.82	0.75	0.77	0.74	0.73	0.66	0.55
1991	1.04	0.99	0.88	0.84	0.77	0.79	0.76	0.75	0.68	0.57
1992-95	1.06	1.02	0.91	0.86	0.79	0.81	0.78	0.77	0.70	0.58
1985-89 Business Trucks										
Pickup	1.36	1.36	1.29	1.19	1.08	0.96	0.92	0.81	0.76	0.53
Van/Utility	1.35	1.38	1.33	1.15	1.28	0.92	1.02	1.00	0.83	0.62
Other Truck	1.30	1.35	1.32	1.13	1.10	1.00	0.91	0.85	0.78	0.45
1985-89 Personal Trucks										
Pickup	1.00	1.05	0.94	0.90	0.87	0.83	0.75	0.68	0.68	0.48
Van/Utility	1.02	1.03	0.97	0.86	0.89	0.84	0.68	0.75	0.73	0.48
Other Truck	0.75	0.69	0.75	0.65	0.60	0.64	0.80	0.61	0.45	0.25
1985-89 Government Trucks										
Pickup	0.71	0.71	0.68	0.62	0.56	0.50	0.48	0.43	0.40	0.28
Van/Utility	0.71	0.72	0.69	0.60	0.67	0.48	0.53	0.53	0.43	0.32
Other Truck	0.68	0.71	0.69	0.59	0.57	0.52	0.47	0.44	0.41	0.24
1990-95 Business Trucks										
Pickup	1.33	1.48	1.30	1.22	1.15	1.08	0.90	0.94	0.90	0.62
Van/Utility	1.50	1.37	1.43	1.30	1.12	1.17	0.93	1.00	0.89	0.72
Other Truck	1.29	1.27	1.23	1.25	0.99	1.00	1.09	0.86	0.80	0.44
1990-95 Personal Trucks										
Pickup	1.00	1.04	0.99	0.96	0.91	0.86	0.81	0.77	0.74	0.51
Van/Utility	1.05	0.97	0.94	0.94	0.96	0.85	0.82	0.75	0.75	0.50
Other Truck	1.15	0.67	0.58	0.63	0.78	0.54	0.44	0.59	0.61	0.22
1990-95 Government Trucks										
Pickup	0.70	0.77	0.68	0.64	0.60	0.57	0.47	0.49	0.47	0.32
Van/Utility	0.78	0.71	0.75	0.68	0.59	0.61	0.49	0.52	0.46	0.38
Other Truck	0.68	0.66	0.64	0.65	0.52	0.52	0.57	0.45	0.42	0.23

Table 17. Estimated Number of Vehicles by Age, Type and Use, 1995

Vehicle Type	Vehicle Age (years)										Total
	0-1	2	3	4	5	6	7	8	9	10+	
Auto	14,830,305	8,590,280	7,997,448	8,300,712	8,519,925	9,361,996	9,559,226	9,239,018	9,056,448	42,931,419	128,386,774
Business Use											
Pickup	1,304,135	694,754	526,694	503,603	491,542	571,425	547,285	481,938	520,062	2,821,496	8,619,177
Van/Utility	1,101,327	555,578	446,791	387,276	309,005	365,271	382,906	262,328	303,595	1,348,650	5,471,809
Other Truck	14,894	10,645	8,256	5,902	7,442	13,119	15,619	13,376	15,281	171,425	285,547
Total	2,420,356	1,260,976	981,742	896,781	807,989	949,815	945,811	757,642	838,938	4,341,571	14,376,533
Personal Use											
Pickup	3,103,466	1,580,495	1,453,518	1,496,303	1,459,381	1,767,258	1,860,116	1,543,416	1,894,982	11,841,022	27,843,716
Van/Utility	3,987,707	2,078,031	1,638,690	1,594,376	1,531,806	1,662,649	1,494,640	1,458,017	1,226,701	5,738,816	22,402,350
Other Truck	2,273	493	720	404	594	1,014	1,631	1,418	1,367	69,102	69,431
Total	7,093,446	3,659,020	3,092,928	3,091,084	2,991,781	3,430,921	3,356,387	3,002,850	3,123,051	17,648,940	50,315,497
Total Government											
Pickup	71,026	36,664	31,910	32,227	31,438	37,686	38,794	32,637	38,917	236,277	587,575
Van/Utility	82,682	42,788	33,883	32,196	29,908	32,948	30,505	27,950	24,863	115,150	452,872
Other Truck	283	183	148	104	132	233	284	244	274	3,961	5,845
Total	153,990	79,636	65,940	64,527	61,478	70,867	69,582	60,831	64,054	355,387	1,046,292

5. Concluding Remarks

Registration data that better reflect the distinction between automobiles and light trucks are needed. Along with this need is the need to develop better estimates of their corresponding travel. By using data from various sources, such as The Polk Company NVPP [5], the FHWA Form 561, the *Highway Statistics* [4], the 1990 NPTS [11], and the 1987 and 1992 TIUS [12], we were able to address these needs. A set of Lotus spreadsheet programs were developed to be used by the FHWA in its future estimations.

Given the complexity of the approach developed in this effort and the incompleteness and inconsistency of the state-submitted data, we recommend that alternatives be considered by FHWA to obtain vehicle registration data. One alternative is the Polk's NVPP [5] data (via the U.S. Department of Transportation's annual subscription to Polk).

The advantages of using Polk data over State submitted data are that it:

1. reduces the reporting burden on States,
2. maximizes data consistency among states with respect to:
 - information coverage,
 - vehicle definition, and
 - vehicle classification,
3. minimizes double counting, and
4. minimizes additional validation and estimation processes by FHWA.

However, there are shortcomings in this alternative. One of the major concerns over Polk's data is uncertainty about its data compilation processes. If possible, a thorough investigation of this question is essential to insure data quality and data consistency.

The second alternative is to obtain raw registration files from individual states' Departments of Motor Vehicles and to decode individual VINs. The advantages of this alternative over the previous alternative or the current procedure (i.e. State-submitted data) are:

1. States' reporting burden will be significantly reduced. Not only do the states eliminate their reporting burden, they can also benefit from this alternative by

(a) having the final statistics available for their own analysis, and (b) having the data set available in an electronic format to meet their policy analysis needs.

2. The **complete** control over data quality can be maintained. All procedures used for data editing and imputation can be clearly documented.
3. There is flexibility in conducting policy analysis and in reporting statistics. For example, analyses do not have to be limited to the level of data aggregation provided by Polk (i.e., data can be generated, via a query interface, according to specific needs of the analysis). Moreover, the wealth of information available on VIN such as body type, chassis type, and weight and size configuration can be fully utilized.

References

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3. Personal Communication, Bill Grush, Federal Highway Administration, April 1996.
4. Federal Highway Administration, U.S. Department of Transportation, *Highway Statistics*, Washington, DC, annual, 1985-95, Tables MV-1, MV-7, and VM-1.
5. The Polk Company, National Vehicle Population Profile Databases, Detroit, MI, annual, 1985-95. FURTHER REPRODUCTION OF POLK COMPANY DATA IS PROHIBITED.
6. Personal Communication, Jeff McCormack, The Polk Company, May-June 1996.
7. U.S. Bureau of Labor Statistics, State and Local Government Employment Data for 1985-95, generated from the Internet site <http://stats.bls.gov>, Selected Access.
8. Personal communication, Gloria Williams, Federal Highway Administration, July 1996.
9. Office of Policy, Planning, and Evaluation, General Services Administration, *Federal Motor Vehicle Fleet Report*, Washington, DC, annual, 1985-95.
10. Miaou, S. P., P. S. Hu, and J. R. Young , *Fleet Vehicles in the United States: Composition, Operating Characteristics, and Fueling Practices*, ORNL-6717, Oak Ridge National Laboratory, Oak Ridge, TN, May 1992, p. 38.
11. Federal Highway Administration, U.S. Department of Transportation, 1990 Nationwide Personal Transportation Study Public Use File, Washington, DC, 1992.
12. Bureau of the Census, U.S. Department of Commerce, 1987 and 1992 Truck Inventory and Use Survey Public Use File, Washington, DC, 1990 and 1995.

Appendix A

FHWA Form 561

U.S. Department
of Transportation
Federal Highway
Administration

**STATE MOTOR-VEHICLE REGISTRATIONS,
REGISTRATION FEES, AND MISCELLANEOUS RECEIPTS**

STATE:

YEAR ENDING (MM/YY):

NOTES AND COMMENTS:

SOURCE:

COLLECTING AGENCY OR AGENCIES

THIS INFORMATION FROM RECORDS OF

COMPILED UNDER DIRECTION OF

SECTION I - REGISTRATION OF MOTOR VEHICLES, TRAILERS, ETC., CLASSIFIED BY TYPE OF VEHICLE

TYPE OF VEHICLE	Total license tags sold or issued (1)	ADJUSTMENTS			Net licenses sold for private and commercial vehicles (5)
		Transfer tags or reregistrations (2)	Nonresident tags (3)	Official vehicles State, county, and municipal (4)	
A. Personal passenger vehicles:					
1. Automobiles.....					
2. Vans-passenger.....					
3. Total.....					
B. Buses:					
1. Commercial.....					
2. School and other.....					
3. Total.....					
C. Trucks:					
1. Light - 4,500 kilograms or less GVW (other than farm).....					
2. Heavy single unit - over 4,500 kilograms GVW (other than farm).....					
3. Farm:					
(a) Single unit (optional).....					
(b) Truck tractors (optional).....					
(c) Total.....					
4. Truck tractors (other than farm).....					
5. Motorhomes.....					
6. Total (1. through 5.).....					
D. Total passenger vehicles and trucks (A + B + C).....					
E. Other vehicles:					
1. Trailers and semitrailers:					
(a) Commercial trailers.....					
(b) Commercial semitrailers.....					
(c) House trailers.....					
(d) Small trailers.....					
(e) Total trailers.....					
2. Motorcycles (Include sidecar).....					
3. Motor bicycles and scooters.....					
4. Miscellaneous motorized equipment.....					
5. Total.....					
F. GRAND TOTAL (D + E).....					

SECTION II - REGISTRATION FEES PAID BY MOTOR VEHICLES, TRAILERS, ETC., CLASSIFIED BY TYPE OF VEHICLE

TYPE OF VEHICLE	Gross collections including transfer or reregistration fees (1) (Omit cents)	ADJUSTMENTS			Net regular registration fees collected (5) (Omit cents)
		Transfer or reregistration fees (2) (Omit cents)	Nonresident tags fees (3) (Omit cents)	Fees for official vehicles, State, county, and municipal (4) (Omit cents)	
A. Personal passenger vehicles:					
1. Automobiles.....					
2. Vans-passenger.....					
3. Total.....					
B. Buses:					
1. Commercial.....					
2. School and other.....					
3. Total.....					
C. Trucks:					
1. Light - 4,500 kilograms or less GVW (other than farm).....					
2. Heavy single unit - over 4,500 kilograms GVW (other than farm).....					
3. Farm:					
(a) Single unit (optional).....					
(b) Truck tractors (optional).....					
(c) Total.....					
4. Truck tractors (other than farm).....					
5. Motorhomes.....					
6. Total (1. through 5.).....					
D. Total passenger vehicles and trucks (A + B + C).....					
E. Other vehicles:					
1. Trailers and semitrailers:					
(a) Commercial trailers.....					
(b) Commercial semitrailers.....					
(c) House trailers.....					
(d) Small trailers.....					
(e) Total trailers.....					
2. Motorcycles (Include sidecar).....					
3. Motor bicycles and scooters.....					
4. Miscellaneous motorized equipment.....					
5. Total.....					
F. GRAND TOTAL (D + E).....					

SECTION III - RECEIPTS OTHER THAN REGULAR REGISTRATION FEES

	Number Issued	Collections (Omit cents)	
A. Dealers' licenses or permits: ¹			
B. Certificates of title (<i>new and transfer</i>)			
C. Fines and penalties (<i>infraction of motor-vehicle laws</i>)			
D. Transfer or reregistration fees (<i>total of column 2, Section II</i>)			
E. Estimated service charges, local collections			
F. Caravan fees.			
G. Miscellaneous receipts:			
1. Nonresident tag fees (<i>total of column 3, Section II</i>)			
2. Other temporary entry permits.			
3. Fees for official cars (<i>total of column 4, Section II</i>)			
4. Duplicates of all kinds.			
5. Vehicle inspection fees.			
6. Personalized (<i>vanity</i>) plate fees.			
7. Oversize and/or overweight permits.			
8. Title lien fees.			
9. Special titling taxes.			
10. Adjustments.			
11.			
12.			
Total.			
H Total (A to G inclusive).			
SECTION IV - GRAND TOTAL, ALL RECEIPTS (II.F. + III.H.).			

¹ Only special dealers' or garage licenses issued by the agencies regulating or licensing motor vehicles, inspection, repair, etc., should be given here. Regular licenses that are required of all businesses should not be included.

NOTES AND COMMENTS

Appendix B

SAS Programs

Part 1:

Registrations

```

*****;
* PROGRAM 1 - CHECKSTY.SAS *;
*****;
* TO PRINT OUT THE MAKES AND MODELS *;
* OF TRUCKS 10,000 LBS. GVW OR LESS WHICH *;
* HAVE UNDISTINGUISHABLE BODY STYLES *;
*****;

** SET UP SAS LIBRARIES **;
LIBNAME GUIDE 'F:\POLK95\GBDIL';
LIBNAME STATE 'F:\POLK95\STSAS';
LIBNAME OUT 'D:\95\ORNL\SSD';

*****;
** BRING IN ONLY TRUCKS 10,000 LBS. AND LESS WHICH HAVE **;
** UNDISTINGUISHABLE BODY STYLES **;
*****;
DATA NAME1; SET STATE.LHTRKS(KEEP=STYL_ABR MODEL_CD MAKE_ABR
TRUCK_CT WGT_CD YEAR);
    WHERE WGT_CD LE '3' AND
        (STYL_ABR='CB' OR STYL_ABR='CE' OR STYL_ABR='CV'
        OR STYL_ABR='CY' OR STYL_ABR='FC' OR STYL_ABR='MS'
        OR STYL_ABR='ST' OR STYL_ABR='SW' OR STYL_ABR='UT'
        OR STYL_ABR='XT');

*****;
* SORT BY MAKE ABBREVIATION *;
*****;
PROC SORT DATA=NAME1; BY MAKE_ABR;

*****;
* MERGE FILES TO GET THE MAKE NAME ASSOCIATED *;
* WITH THE MAKE ABBREVIATION *;
*****;
DATA NAME2; MERGE GUIDE.TMAKE
                NAME1(IN=IN1);
                BY MAKE_ABR;
                IF IN1;

*****;
* SORT BY MAKE ABBREVIATION AND MODEL CODE *;
*****;
PROC SORT DATA=NAME2;
    BY YEAR MAKE_ABR MODEL_CD;
PROC SORT DATA=GUIDE.LTMODEL OUT=LTMODEL;
    BY YEAR MAKE_ABR MODEL_CD;

```

```

*****;
* MERGE FILES TO GET THE MODEL NAME ASSOCIATED *;
* WITH THE MODEL CODE *;
*****;
DATA NAME3; MERGE LTMODEL
              NAME2(IN=IN1);
              BY YEAR MAKE_ABR MODEL_CD;
              IF IN1;

PROC SUMMARY NWAY DATA=NAME3;
VAR TRUCK_CT;
CLASS STYL_ABR TMAK_NAM MODL_NAM;
OUTPUT OUT=SUM(DROP=_TYPE_ _FREQ_) SUM=TRUCKS;
RUN;

*****;
* PRINT OUT A LISTING OF ALL MAKES AND MODELS *;
*****;
PROC PRINT DATA=SUM; SUM TRUCKS; FORMAT TRUCKS COMMA15.;
TITLE 'NUMBER OF TRUCKS BY BODY STYLE';
TITLE2 'MAKE AND MODEL - 1995';
RUN;

*****;
* CREATE A DATABASE WITH THE VARIABLE TYPE = . *;
* WHICH WILL BE FILLED IN USING FSEDIT TO *;
* IDENTIFY WHETHER THE TRUCK IS A PICKUP, VAN, *;
* SPORTS UTILITY, OR OTHER TRUCK *;
*****;
DATA OUT.STYLES95; SET SUM; TYPE = .;RUN;

```

```

*****;
* PROGRAM 2 - STYSHARE.SAS *;
*****;
* THIS PROGRAM IS RUN AFTER THE DATABASE STYLES95 *;
* HAS BEEN EDITED TO INCLUDE THE PROPER TRUCK TYPE *;
*****;
* TO SUMMARIZE THE SHARES BY TRUCK TYPE FOR EACH *;
* UNDISTINGUISHABLE BODY STYLE TO USE AS AN INPUT *;
* FOR PROGRAM 4 - LT1.SAS *;
*****;

** SET UP SAS LIBRARIES **;
LIBNAME D 'D:\95\ORNL\SSD';

*****;
* SUMMARIZE THE NUMBER OF TRUCKS BY TYPE *;
*****;
PROC SUMMARY NWAY DATA=D.STYLES95;
CLASS TYPE;
BY STYL_ABR;
VAR TRUCKS;
OUTPUT OUT=SUM(DROP=_TYPE_ _FREQ_) SUM=TRUCKS;

*****;
* PRINT *;
*****;
PROC PRINT DATA=SUM;
BY STYL_ABR;
TITLE '1995 POLK - TRUCKS STYLES BY TYPE';
SUM TRUCKS;
FORMAT TRUCKS COMMA9.;
RUN;

```

```

*****;
* PROGRAM 3 - AUTOS1.SAS *;
*****;
* TO SUMMARIZE AUTOMOBILES BY STATE *;
*****;

** SET UP SAS LIBRARIES **;
LIBNAME STATE 'F:\POLK95\STSAS';
LIBNAME OUT 'D:\95\ORNL\SSD';

*****;
* SUMMARIZE IMPORT DATA BY STATE *;
*****;
DATA IMPORTS; SET STATE.IMPCARS(KEEP=ST_ABR CAR_CT);
PROC SUMMARY NWAY DATA=IMPORTS;
VAR CAR_CT;
CLASS ST_ABR;
OUTPUT OUT=SUMIMP(DROP=_TYPE_ _FREQ_) SUM=ICARS;
RUN;

*****;
* SUMMARIZE DOMESTIC DATA BY STATE *;
*****;
DATA DOMESTIC; SET STATE.DOMCARS(KEEP=ST_ABR CAR_CT);
PROC SUMMARY NWAY DATA=DOMESTIC;
VAR CAR_CT;
CLASS ST_ABR;
OUTPUT OUT=SUMDOM(DROP=_TYPE_ _FREQ_) SUM=DCARS;
RUN;

*****;
* ADD DOMESTIC AND IMPORT TOGETHER *;
*****;
DATA OUT.AUTOS1(DROP=DCARS ICARS); MERGE SUMDOM SUMIMP; BY ST_ABR;
VEHICLES = DCARS + ICARS;
TYPE = 'AUTO';
RUN;

*****;
* PRINT A LISTING OF AUTOS BY STATE *;
*****;
PROC PRINT DATA=OUT.AUTOS1;
TITLE 'AUTOMOBILES BY STATE - 1995 POLK';
SUM VEHICLES;
RUN;

```



```

*****;
* PROGRAM 3 - LT1.SAS *;
*****;
* TO SUMMARIZE LIGHT TRUCKS BY STATE *;
* AND VEHICLE TYPE *;
*****;

```

```

** FORMAT STATE CODE **;

```

```

PROC FORMAT;

```

```

    VALUE $STATE

```

```

        01 = 'AL'
        02 = 'AK'
        04 = 'AZ'
        05 = 'AR'
        06 = 'CA'
        08 = 'CO'
        09 = 'CT'
        10 = 'DE'
        11 = 'DC'
        12 = 'FL'
        13 = 'GA'
        15 = 'HI'
        16 = 'ID'
        17 = 'IL'
        18 = 'IN'
        19 = 'IA'
        20 = 'KS'
        21 = 'KY'
        22 = 'LA'
        23 = 'ME'
        24 = 'MD'
        25 = 'MA'
        26 = 'MI'
        27 = 'MN'
        28 = 'MS'
        29 = 'MO'
        30 = 'MT'
        31 = 'NE'
        32 = 'NV'
        33 = 'NH'
        34 = 'NJ'
        35 = 'NM'
        36 = 'NY'
        37 = 'NC'
        38 = 'ND'
        39 = 'OH'
        40 = 'OK'
        41 = 'OR'
        42 = 'PA'
        44 = 'RI'
        45 = 'SC'

```

```

46 = 'SD'
47 = 'TN'
48 = 'TX'
49 = 'UT'
50 = 'VT'
51 = 'VA'
53 = 'WA'
54 = 'WV'
55 = 'WI'
56 = 'WY'
;

```

```

** SET UP SAS LIBRARIES **;
LIBNAME STATE 'D:\POLK95\STSAS';
LIBNAME OUT 'D:\95\ORNL\SSD';

```

```

DATA LT(DROP=TRUCK_CT WGT_CD STYL_ABR); SET STATE.LHTRKS(KEEP=ST_ABR
TRUCK_CT WGT_CD STYL_ABR);

```

```

*****;
* ONLY TRUCKS WITH GVW 10,000 LBS. OR LESS *;
*****;
WHERE WGT_CD NE '3';

```

```

*****;
* SUBSET INTO TRUCK TYPES USING STYL_ABR *;
*****;
* PERCENTAGES FOR UNDISTINGUISHABLE BODY STYLES *;
* CAME FROM OUTPUT OF STYSHARE.SAS *;
*****;

```

```

IF STYL_ABR='2U' OR STYL_ABR='4U' OR STYL_ABR='LL'
OR STYL_ABR='SW' OR STYL_ABR='UT' OR STYL_ABR='XT'
THEN DO;
TYPE = 'UTILITY'; VEHICLES = TRUCK_CT;
OUTPUT; END;

```

```

IF STYL_ABR='BU' OR STYL_ABR='IC' OR STYL_ABR='MY'
OR STYL_ABR='MH' THEN DO;
TYPE = 'OTHER'; VEHICLES = TRUCK_CT;
OUTPUT; END;

```

```

IF STYL_ABR='CW' OR STYL_ABR='FB' OR STYL_ABR='PK'
OR STYL_ABR='ST' THEN DO;
TYPE = 'PICKUP'; VEHICLES = TRUCK_CT;
OUTPUT; END;

```

```

IF STYL_ABR='MB' OR STYL_ABR='FC' OR STYL_ABR='MI'
OR STYL_ABR='MP' OR STYL_ABR='MS' OR STYL_ABR='MV'
OR STYL_ABR='PD' OR STYL_ABR='PI' OR STYL_ABR='PN'
OR STYL_ABR='PV' OR STYL_ABR='SN' OR STYL_ABR='SV'
OR STYL_ABR='VI' OR STYL_ABR='VN' THEN DO;
TYPE = 'VAN'; VEHICLES = TRUCK_CT;
OUTPUT; END;

IF STYL_ABR='CB' THEN DO;
  VEHICLES = TRUCK_CT*0.936; TYPE = 'PICKUP'; OUTPUT;
  VEHICLES = TRUCK_CT*0.029; TYPE = 'UTILITY'; OUTPUT;
  VEHICLES = TRUCK_CT*0.035; TYPE = 'OTHER'; OUTPUT;
END;

IF STYL_ABR='CE' THEN DO;
  VEHICLES = TRUCK_CT*0.872; TYPE = 'PICKUP'; OUTPUT;
  VEHICLES = TRUCK_CT*0.049; TYPE = 'UTILITY'; OUTPUT;
  VEHICLES = TRUCK_CT*0.079; TYPE = 'OTHER'; OUTPUT;
END;

IF STYL_ABR='CV' THEN DO;
  VEHICLES = TRUCK_CT*0.004; TYPE = 'PICKUP'; OUTPUT;
  VEHICLES = TRUCK_CT*0.996; TYPE = 'UTILITY'; OUTPUT;
END;

IF STYL_ABR='CY' THEN DO;
  VEHICLES = TRUCK_CT*0.877; TYPE = 'VAN'; OUTPUT;
  VEHICLES = TRUCK_CT*0.114; TYPE = 'UTILITY'; OUTPUT;
  VEHICLES = TRUCK_CT*0.009; TYPE = 'OTHER'; OUTPUT;
END;

IF STYL_ABR=' ' THEN DO; TYPE = 'UNKNOWN';
VEHICLES = TRUCK_CT;
OUTPUT; END;

```

```

RUN;

```

```

*****;
* DISTRIBUTE UNKNOWN VEHICLE TYPES      *;
* BY SAME DISTRIBUTION AS KNOWN TYPES *;
*****;

```

```

** SUM TRUCKS WHOSE TYPES ARE KNOWN BY STATE AND TYPE **;
** FOR THE NUMERATOR **;
PROC SUMMARY NWAY DATA=LT;
WHERE TYPE NE 'UNKNOWN';
CLASS ST_ABR TYPE;
VAR VEHICLES;
OUTPUT OUT=BYTYPE(DROP=_TYPE_ _FREQ_) SUM=VEHICLES;

```

```

** SUM TRUCKS WHOSE TYPES ARE KNOWN BY STATE **;

```

```

** FOR THE DENOMINATOR **;
PROC SUMMARY NWAY DATA=LT;
WHERE TYPE NE 'UNKNOWN';
CLASS ST_ABR;
VAR VEHICLES;
OUTPUT OUT=SUM(DROP=_TYPE_ _FREQ_) SUM=STTOTAL;

** CREATE DISTRIUTION OF TRUCKS BY STATE AND TYPE **;
DATA SHARES(KEEP=PCT TYPE ST_ABR); MERGE SUM BYTYPE; BY ST_ABR;
PCT=VEHICLES/STTOTAL;

** SUMMARIZE THE TRUCKS WITH UNKNOWN TYPES BY STATE **;
PROC SUMMARY NWAY DATA=LT;
WHERE TYPE='UNKNOWN';
CLASS ST_ABR;
VAR VEHICLES;
OUTPUT OUT=UNKNOWN(DROP=_TYPE_ _FREQ_) SUM=UNKVEH;

** APPLY THE SHARES TO THE TRUCKS WITH UNKNOWN TYPES **;
DATA GETSHARE(DROP=UNKVEH); MERGE UNKNOWN SHARES; BY ST_ABR;
    VEHICLES = UNKVEH * PCT;
    RUN;

** SUBSET THE TRUCKS WITH THE KNOWN TRUCK TYPES **;
DATA MOST; SET LT; WHERE TYPE NE 'UNKNOWN';

** COMBINE THE TRUCKS WITH THE KNOWN TRUCK TYPES WITH THE **;
** ONES WHICH USED TO BE UNKNOWN, BUT NOW HAVE TRUCK TYPES **;
DATA TOGETHER; SET MOST GETSHARE;

*****;
* SUMMARIZE BY STATE AND TYPE - NO UNKNOWN TYPES *;
*****;
PROC SUMMARY NWAY DATA=TOGETHER;
CLASS ST_ABR TYPE;
VAR VEHICLES;
OUTPUT OUT=OUT.LT1(DROP=_TYPE_ _FREQ_) SUM=VEHICLES;

*****;
* ADD IN THE AUTOMOBILESS FOR TABULATION *;
*****;
DATA TABLE; SET OUT.LT1 OUT.AUTOS1;
RUN;

```

```

*****;
* TABULATE LIGHT-DUTY VEHICLES BY STATE AND TYPE *;
*****;
PROC TABULATE DATA=TABLE;
VAR VEHICLES;
CLASS TYPE ST_ABR;
FORMAT ST_ABR $STATE.;
TABLES (ST_ABR ALL), SUM*(TYPE ALL)*VEHICLES*(F=COMMA9.);
TITLE 'REGISTRATIONS BY STATE AND VEHICLE TYPE - 1995 POLK';
RUN;

```


Part 2:

Vehicle Miles of Travel


```

*****;
* PROGRAM 4 - AUTOS2.SAS *;
*****;
* CREATES AUTOS BY AGE DISTRIBUTION *;
*****;

** SET UP SAS LIBRARIES **;
LIBNAME STATE 'F:\POLK95\STSAS';
LIBNAME OUT 'D:\POLK\95\SSD';

** FORMAT MODEL YEAR INTO AGE **;
PROC FORMAT;
  VALUE YEARF
    74-85, 1 = 'J. 10+'
    86 = 'I. 9'
    87 = 'H. 8'
    88 = 'G. 7'
    89 = 'F. 6'
    90 = 'E. 5'
    91 = 'D. 4'
    92 = 'C. 3'
    93 = 'B. 2'
    94-96 = 'A. 0-1'
  ;
** YEAR = 1 IS FOR VEHICLES WITH MODEL YEARS LESS THAN 74 **;

*****;
* SUMMARIZE IMPORT AUTOMOBILES BY AGE *;
*****;
DATA IMPORTS; SET STATE.IMPCARS(KEEP=YEAR CAR_CT);
PROC SUMMARY NWAY DATA=IMPORTS;
VAR CAR_CT;
CLASS YEAR;
OUTPUT OUT=SUMIMP(DROP=_TYPE_ _FREQ_) SUM=ICARS;
RUN;

*****;
* SUMMARIZE DOMESTIC AUTOMOBILES BY AGE *;
*****;
DATA DOMESTIC; SET STATE.DOMCARS(KEEP=YEAR CAR_CT);
PROC SUMMARY NWAY DATA=DOMESTIC;
VAR CAR_CT;
CLASS YEAR;
OUTPUT OUT=SUMDOM(DROP=_TYPE_ _FREQ_) SUM=DCARS;
RUN;

```

```

*****;
* ADD DOMESTIC AND IMPORT TOGETHER *;
*****;
DATA AUTOS(DROP=DCARS ICARS); MERGE SUMDOM SUMIMP; BY YEAR;
VEHICLES = DCARS + ICARS;
TYPE = 'AUTO';
RUN;

*****;
* DISTRIBUTE UNKNOWN MODEL YEARS *;
* BY SAME DISTRIBUTION AS KNOWN YEARS *;
*****;

** SUMMARIZE AUTOS WITH KNOWN YEARS BY YEAR AND TYPE **;
** FOR THE NUMERATOR. NOTE: ALL TYPES = AUTO **;
PROC SUMMARY NWAY DATA=AUTOS;
WHERE YEAR NE 0;
CLASS YEAR TYPE;
VAR VEHICLES;
OUTPUT OUT=BYYEAR(DROP=_TYPE_ _FREQ_) SUM=VEHICLES;

** SUMMARIZE AUTOS WITH KNOWN YEARS BY TYPE **;
** FOR THE DENOMINATOR. NOTE: ALL TYPES = AUTO **;
PROC SUMMARY NWAY DATA=AUTOS;
WHERE YEAR NE 0;
CLASS TYPE;
VAR VEHICLES;
OUTPUT OUT=SUMYEAR(DROP=_TYPE_ _FREQ_) SUM=YRTOT;

** CREATE DISTRIBUTION OF AUTOS BY MODEL YEAR **;
DATA SHARES; MERGE SUMYEAR BYYEAR; BY TYPE;
PCT = VEHICLES/YRTOT;

** SUMMARIZE AUTOS WITH UNKNOWN MODEL YEAR **;
PROC SUMMARY NWAY DATA=AUTOS;
WHERE YEAR = 0;
CLASS TYPE;
VAR VEHICLES;
OUTPUT OUT=UNKNOWN(DROP=_TYPE_ _FREQ_) SUM=UNKVEH;

** APPLY THE SHARES TO THE AUTOS WITH UNKNOWN MODEL YEARS **;
DATA GETSHARE (DROP=UNKVEH); MERGE UNKNOWN SHARES; BY TYPE;
VEHICLES = UNKVEH * PCT;

** SUBSET THE AUTOS WITH THE KNOWN MODEL YEARS **;
DATA MOST; SET AUTOS; WHERE YEAR NE 0;

** COMBINE THE AUTOS WITH THE KNOWN MODEL YEARS WITH THE **;
** ONES WHICH USED TO BE UNKNOWN, BUT NOW HAVE MODEL YEARS **;
DATA TOGETHER; SET MOST GETSHARE;

```

```

*****
* SUMMARIZE BY YEAR AND TYPE - NO UNKNOWN YEARS *;
*****
PROC SUMMARY NWAY DATA=TOGETHER;
CLASS YEAR TYPE;
VAR VEHICLES;
OUTPUT OUT=OUT.AUTOS2(DROP=_TYPE_ _FREQ_) SUM=VEHICLES;

*****
* TABULATE AUTOMOBILES BY AGE *;
*****
PROC TABULATE DATA=OUT.AUTOS2;
CLASS YEAR TYPE;
FORMAT YEAR YEARF.;
VAR VEHICLES;
TABLES (YEAR ALL) *, TYPE*SUM*F=COMMA15.;
RUN;

```

```

*****;
* PROGRAM 5 - LT2.SAS *;
*****;
* CREATES LIGHT TRUCKS BY AGE DISTRIBUTION BY TYPE *;
*****;

** FORMAT MODEL YEAR INTO AGE **;
PROC FORMAT;
  VALUE AGE
94-96 = 'A. 0-1'
93     = 'B. 2'
92     = 'C. 3'
91     = 'D. 4'
90     = 'E. 5'
89     = 'F. 6'
88     = 'G. 7'
87     = 'H. 8'
86     = 'I. 9'
74-85, 1 = 'J. 10+'
;

** NOTE: YEAR = 1 IS MODEL YEAR LESS THAN 74**;

** SET UP SAS LIBRARIES **;
LIBNAME STATE 'F:\POLK95\STSAS';
LIBNAME OUT 'D:\POLK\95\SSD';

DATA LT1(DROP=TRUCK_CT WGT_CD STYL_ABR);
  SET STATE.LHTRKS(KEEP= TRUCK_CT WGT_CD STYL_ABR YEAR);
*****;
* ONLY TRUCKS WITH GVW 10,000 LBS. OR LESS *;
*****;
  WHERE WGT_CD NE '3';

*****;
* SUBSET INTO TRUCK TYPES USING STYL_ABR *;
*****;
* PERCENTAGES FOR UNDISTINGUISHABLE BODY STYLES *;
* CAME FROM OUTPUT OF STYSHARE.SAS *;
*****;
  IF STYL_ABR='2U' OR STYL_ABR='4U' OR STYL_ABR='LL'
  OR STYL_ABR='SW' OR STYL_ABR='UT' OR STYL_ABR='XT'
  THEN DO;
    TYPE = 'UTILITY'; VEHICLES = TRUCK_CT;
    OUTPUT; END;

  IF STYL_ABR='BU' OR STYL_ABR='IC' OR STYL_ABR='MY'
  OR STYL_ABR='MH' THEN DO;
    TYPE = 'OTHER'; VEHICLES = TRUCK_CT;
    OUTPUT; END;

```

```

IF STYL_ABR='CW' OR STYL_ABR='FB' OR STYL_ABR='PK'
OR STYL_ABR='ST' THEN DO;
TYPE = 'PICKUP'; VEHICLES = TRUCK_CT;
OUTPUT; END;

```

```

IF STYL_ABR='MB' OR STYL_ABR='FC' OR STYL_ABR='MI'
OR STYL_ABR='MP' OR STYL_ABR='MS' OR STYL_ABR='MV'
OR STYL_ABR='PD' OR STYL_ABR='PI' OR STYL_ABR='PN'
OR STYL_ABR='PV' OR STYL_ABR='SN' OR STYL_ABR='SV'
OR STYL_ABR='VI' OR STYL_ABR='VN' THEN DO;
TYPE = 'VAN'; VEHICLES = TRUCK_CT;
OUTPUT; END;

```

```

IF STYL_ABR='CB' THEN DO;
VEHICLES = TRUCK_CT*0.936; TYPE = 'PICKUP'; OUTPUT;
VEHICLES = TRUCK_CT*0.029; TYPE = 'UTILITY'; OUTPUT;
VEHICLES = TRUCK_CT*0.035; TYPE = 'OTHER'; OUTPUT;
END;

```

```

IF STYL_ABR='CE' THEN DO;
VEHICLES = TRUCK_CT*0.872; TYPE = 'PICKUP'; OUTPUT;
VEHICLES = TRUCK_CT*0.049; TYPE = 'UTILITY'; OUTPUT;
VEHICLES = TRUCK_CT*0.079; TYPE = 'OTHER'; OUTPUT;
END;

```

```

IF STYL_ABR='CV' THEN DO;
VEHICLES = TRUCK_CT*0.004; TYPE = 'PICKUP'; OUTPUT;
VEHICLES = TRUCK_CT*0.996; TYPE = 'UTILITY'; OUTPUT;
END;

```

```

IF STYL_ABR='CY' THEN DO;
VEHICLES = TRUCK_CT*0.877; TYPE = 'VAN'; OUTPUT;
VEHICLES = TRUCK_CT*0.114; TYPE = 'UTILITY'; OUTPUT;
VEHICLES = TRUCK_CT*0.009; TYPE = 'OTHER'; OUTPUT;
END;

```

```

*****;
* DELETE UNKNOWN STYLES BECAUSE THIS OUTPUT IS USED TO CREATE *;
* SHARES. UNKNOWN STYLES WOULD SIMPLY BE DISTRIBUTED ACROSS *;
* THE STYLES IN THE EXISTING PROPORTION, THUS WILL NOT CHANGE *;
* THE SHARES *;
*****;

```

```

IF STYL_ABR=' ' THEN DELETE;

```

```

*****;
* COMBINE UTILITIES AND VANS INTO ONE TRUCK TYPE. *;
* THIS IS NEEDED BECAUSE THE OUTPUT OF THIS IS USED *;
* WITH VMT DATA. THE VMT DATA HAVE COMBINED VANS & *;
* AND UTILITIES WHICH CANNOT BE SEPARATED. *;
*****;

```

```

      IF TYPE = 'UTILITY' OR TYPE = 'VAN' THEN TYPE = 'VAN/UTIL';

*****;
* DELETE UNKNOWN YEARS BECAUSE THIS OUTPUT IS USED TO CREATE *;
* SHARES. UNKNOWN YEARS WOULD SIMPLY BE DISTRIBUTED ACROSS *;
* THE YEARS IN THE EXISTING PROPORTION, THUS WILL NOT CHANGE *;
* THE SHARES. *;
*****;
      IF YEAR = 0 THEN DELETE;

*****;
* SUMMARIZE BY MODEL YEAR AND TRUCK TYPE *;
*****;
PROC SUMMARY NWAY DATA=TOGETHER;
CLASS YEAR TYPE;
VAR VEHICLES;
OUTPUT OUT=OUT.LT2(DROP=_TYPE_ _FREQ_) SUM=VEHICLES;

*****;
* TABULATE LIGHT TRUCKS BY AGE AND TRUCK TYPE *;
*****;
PROC TABULATE DATA=OUT.LT2;
CLASS YEAR TYPE;
FORMAT YEAR AGE.;
VAR VEHICLES;
TABLES (YEAR ALL), TYPE*SUM*VEHICLES*F=COMMA15.;
TITLE 'NUMBER OF LIGHT TRUCKS BY AGE AND TYPE FOR VMT WORK - 1995
POLK';
RUN;

```

```

*****;
* PROGRAM 6 - LDVTIUS1.SAS *;
*****;
* CREATES AVERAGE ANNUAL VMT PER VEHICLE BY AGE AND*
* TYPE. 1992 TIUS *;
*****;

** SET UP SAS LIBRARY **
LIBNAME D 'D:\TIUS';

** FORMAT AGE AND TRUCK TYPE **;
PROC FORMAT;
  VALUE AGE 1-2='<=1'
           3='2'
           4='3'
           5='4'
           6='5'
           7='6'
           8='7'
           9='8'
          10='9'
          11='10+';

  VALUE TYPE 1='PICKUP'
            2='VAN'
            3='SU LGT';

*****;
* TABULATE AVERAGE ANNUAL MILES FOR BUSINESS LIGHT TRUCKS*;
* BY AGE AND TRUCK TYPE *;
*****;
PROC TABULATE DATA=D.LDVTIUS(KEEP=ANNMIL EXPANF MDLYR
  OPCLAS TIUGVW SAMTYP);
  WHERE OPCLAS=1 AND TIUGVW LT 3 AND SAMTYP LE 3;
  CLASS MDLYR SAMTYP;
  FORMAT MDLYR AGE. SAMTYP TYPE.;
  VAR ANNMIL;
  WEIGHT EXPANF;
  TABLE (SAMTYP ALL), ANNMIL*(MDLYR ALL)*(N MEAN);
  TITLE 'AVERAGE ANNUAL VMT PER VEHICLE BY TRUCK TYPE AND';
  TITLE2 'VEHICLE AGE - FOR BUSINESS USE AND TRUCKS';
  TITLE3 'WITH TIUGVW LT 10,000 LBS ONLY - 1992 TIUS';
RUN;

```

```

*****;
* TABULATE AVERAGE ANNUAL MILES FOR PERSONAL LIGHT TRUCKS*;
* BY AGE AND TRUCK TYPE *;
*****;
PROC TABULATE DATA=D.LDVTIUS(KEEP=ANNMIL EXPANF MDLYR
    OPCLAS TIUGVW SAMTYP);
    WHERE OPCLAS=2 AND TIUGVW LT 3 AND SAMTYP LE 3;
    CLASS MDLYR SAMTYP;
    FORMAT MDLYR AGE. SAMTYP TYPE.;
    VAR ANNMIL;
    WEIGHT EXPANF;
    TABLE (SAMTYP ALL), ANNMIL*(MDLYR ALL)*(N MEAN);
    TITLE 'AVERAGE ANNUAL VMT PER VEHICLE BY TRUCK TYPE AND';
    TITLE2 'VEHICLE AGE - FOR PERSONAL USE AND TRUCKS';
    TITLE3 'WITH TIUGVW LT 10,000 LBS ONLY - 1992 TIUS';
RUN;

```



```

*****;
* PROGRAM 7 - LDVTIUS2.SAS *;
*****;
* CREATES AVERAGE ANNUAL VMT PER VEHICLE BY AGE AND*;
* TYPE. 1987 TIUS *;
*****;

** SET UP SAS LIBRARY **;
LIBNAME IN87 'E:\TIUS87';

** FORMAT AGE AND TRUCK TYPE **;
PROC FORMAT;
  VALUE $ BAGE '01'='<=1'
               '02'='<=1'
               '03'='2'
               '04'='3'
               '05'='4'
               '06'='5'
               '07'='6'
               '08'='7'
               '09'='8'
               '10'='9'
               '11'='10+';

  VALUE $ BTYPE '1'='PICKUP'
                '2'='VAN'
                '3'='SU LGT';

*****;
* TABULATE AVERAGE ANNUAL MILES FOR BUSINESS LIGHT TRUCKS*;
* BY AGE AND TRUCK TYPE *;
*****;
PROC TABULATE DATA=IN87.TIUS87P1(KEEP=ANNMIL EXPFAC MDLYR
  OPCLAS TIUGVW SAMTYP);
  WHERE OPCLAS='1' AND (TIUGVW='01' OR TIUGVW='02') AND
    (SAMTYP='1' OR SAMTYP='2' OR SAMTYP='3');
  CLASS MDLYR SAMTYP;
  FORMAT MDLYR $BAGE. SAMTYP $BTYPE.;
  VAR ANNMIL;
  WEIGHT EXPFAC;
  TABLE (SAMTYP ALL), ANNMIL*(MDLYR ALL)*(N MEAN);
  TITLE 'AVERAGE ANNUAL VMT PER VEHICLE BY TRUCK TYPE AND';
  TITLE2 'VEHICLE AGE - FOR BUSINESS USE AND TRUCKS';
  TITLE3 'WITH TIUGVW LT 10,000 LBS ONLY - 1987 TIUS';
RUN;

```

```

*****;
* TABULATE AVERAGE ANNUAL MILES FOR PERSONAL LIGHT TRUCKS*;
* BY AGE AND TRUCK TYPE *;
*****;
PROC TABULATE DATA=IN87.TIUS87P1(KEEP=ANNMIL EXPFAC MDLYR
    OPCLAS TIUGVW SAMTYP);
    WHERE OPCLAS='2' AND (TIUGVW='01' OR TIUGVW='02') AND
        (SAMTYP='1' OR SAMTYP='2' OR SAMTYP='3');
    CLASS MDLYR SAMTYP;
    FORMAT MDLYR $BAGE. SAMTYP $BTYPE.;
    VAR ANNMIL;
    WEIGHT EXPFAC;
    TABLE (SAMTYP ALL), ANNMIL*(MDLYR ALL)*(N MEAN);
    TITLE 'AVERAGE ANNUAL VMT PER VEHICLE BY TRUCK TYPE AND';
    TITLE2 'VEHICLE AGE - FOR PERSONAL USE AND TRUCKS';
    TITLE3 'WITH TIUGVW LT 10,000 LBS ONLY - 1987 TIUS';
RUN;

```

```

*****;
* PROGRAM 8 - LDVTIUS3.SAS *;
*****;
* CREATES NUMBER OF TRUCKS BY VEHICLE AGE AND *;
* TRUCK TYPE *;
*****;

```

```

** SET UP SAS LIBRARY **
LIBNAME D 'D:\TIUS';

```

```

** FORMAT AGE AND TRUCK TYPE **;
PROC FORMAT;

```

```

    VALUE AGE 1-2='<=1'
              3='2'
              4='3'
              5='4'
              6='5'
              7='6'
              8='7'
              9='8'
             10='9'
             11='10+';

```

```

    VALUE TYPE 1='PICKUP'
               2='VAN'
               3='SU LGT';

```

```

*****;
* TABULATE BUSINESS LIGHT TRUCKS BY AGE AND TRUCK TYPE *;
*****;
PROC TABULATE DATA=D.LDVTIUS(KEEP=ANNMIL EXPANF MDLYR
    OPCLAS TIUGVW SAMTYP);
    WHERE OPCLAS=1 AND TIUGVW LT 3 AND SAMTYP LE 3;
    CLASS MDLYR SAMTYP;
    FORMAT MDLYR AGE. SAMTYP TYPE.;
    VAR EXPANF;
    TABLE (SAMTYP ALL), EXPANF*(MDLYR ALL)*SUM;
    TITLE 'TRUCKS BY TRUCK TYPE AND';
    TITLE2 'VEHICLE AGE - FOR BUSINESS USE TRUCKS';
    TITLE3 'WITH TIUGVW LT 10,000 LBS ONLY - 1992 TIUS';
RUN;

```

```

*****;
* TABULATE PERSONAL LIGHT TRUCKS BY AGE AND TRUCK TYPE *;
*****;
PROC TABULATE DATA=D.LDVTIUS(KEEP=ANNMIL EXPANF MDLYR
    OPCLAS TIUGVW SAMTYP);
    WHERE OPCLAS=2 AND TIUGVW LT 3 AND SAMTYP LE 3;
    CLASS MDLYR SAMTYP;
    FORMAT MDLYR AGE. SAMTYP TYPE.;
    VAR EXPANF;
    TABLE (SAMTYP ALL), EXPANF*(MDLYR ALL)*SUM;
    TITLE 'TRUCKS BY TRUCK TYPE AND';
    TITLE2 'VEHICLE AGE - FOR PERSONAL USE AND TRUCKS';
    TITLE3 'WITH TIUGVW LT 10,000 LBS ONLY - 1992 TIUS';
RUN;

```

```

*****;
* PROGRAM 9 - LDVNPTS.SAS *;
*****;
* CREATES AVERAGE ANNUAL VMT PER VEHICLE BY AGE AND *;
* TYPE. 1990 NPTS *;
*****;

** SET UP SAS LIBRARY **;
LIBNAME IN 'G:\NPTS\1990';

** FORMAT AGE AND VEHICLE TYPE **;
PROC FORMAT;
    VALUE AGE -903='DKS'
              1='<= 1'
              10-100='10+'
              998-999='DKS';

    VALUE TYPE 1='AUTO'
              2-3='VAN'
              4='PICKUP'
              5='OTH TRK';

*****;
* TABULATE AVERAGE ANNUAL MILES FOR PERSONAL VEHICLES *;
* BY AGE AND VEHICLE TYPE *;
*****;
PROC TABULATE DATA=IN.VEHICLE(KEEP=ANNMILES VEHAGE VEHTYPE
    WTHHFIN);
    WHERE ANNMILES LE 115000 AND VEHTYPE LT 6;
    CLASS VEHAGE VEHTYPE;
    FORMAT VEHAGE AGE. VEHTYPE TYPE.;
    VAR ANNMILES;
    WEIGHT WTHHFIN;
    TABLE (VEHTYPE ALL), ANNMILES*(VEHAGE ALL)*(N MEAN);
    TITLE 'AVERAGE ANNUAL VMT PER VEHICLE BY';
    TITLE2 'VEHICLE TYPE AND AGE - 1990 NPTS';
RUN;

```


Appendix C

SAS Output

Part 1:

Registrations

OUTPUT OF CHECKSTY.SAS
NUMBER OF TRUCKS BY BODY STYLE
MAKE AND MODEL - 1995

OBS	STYL_ABR	TMAK_NAM	MODL_NAM	TRUCKS
1	CB	CHEVROLET	C10	1,162
2	CB	CHEVROLET	C10 BIG TEN	1,911
3	CB	CHEVROLET	C20	23,232
4	CB	CHEVROLET	C2500	12,735
5	CB	CHEVROLET	C2500 EXT CAB	600
6	CB	CHEVROLET	C30	150,578
7	CB	CHEVROLET	C3500	18,805
8	CB	CHEVROLET	C3500 EXT CAB	1,932
9	CB	CHEVROLET	K10	472
10	CB	CHEVROLET	K20	2,641
11	CB	CHEVROLET	K2500	2,971
12	CB	CHEVROLET	K2500 EXT CAB	927
13	CB	CHEVROLET	K30	16,508
14	CB	CHEVROLET	K3500	5,077
15	CB	CHEVROLET	K3500 EXT CAB	988
16	CB	CHEVROLET	LUV	2,318
17	CB	CHEVROLET	R20	1,686
18	CB	CHEVROLET	R30	23,669
19	CB	CHEVROLET	R3500	9,406
20	CB	CHEVROLET	S10	3,411
21	CB	CHEVROLET	V30	3,799
22	CB	CHEVROLET	V3500	1,440
23	CB	DODGE	D100	609
24	CB	DODGE	D150	463
25	CB	DODGE	D200	2,773
26	CB	DODGE	D250	4,329
27	CB	DODGE	D300	11,123
28	CB	DODGE	D350	8,209
29	CB	DODGE	DAKOTA	1,169
30	CB	DODGE	RAM 1500 SERIES	1
31	CB	DODGE	RAM 2500 SERIES	1,623
32	CB	DODGE	RD200	10
33	CB	DODGE	W100	50
34	CB	DODGE	W150	34
35	CB	DODGE	W200	876
36	CB	DODGE	W250	753
37	CB	DODGE	W300	2,663
38	CB	DODGE	W350	2,137
39	CB	FORD	F-100	1,133
40	CB	FORD	F-150	1,480
41	CB	FORD	F-150 SUPER CAB	62
42	CB	FORD	F-250	23,567
43	CB	FORD	F-250 SUPER CAB	281
44	CB	FORD	F-350	170,068
45	CB	FORD	F-350 SUPER CAB	30
46	CB	FORD	RANGER	2,293
47	CB	GMC	C1500	77
48	CB	GMC	C1500 BIG TEN	392
49	CB	GMC	C2500	6,430
50	CB	GMC	C2500 SIERRA	4,706
51	CB	GMC	C2500 SIERRA XC	158
52	CB	GMC	C3500	61,364
53	CB	GMC	C3500 EXT CAB	123
54	CB	GMC	C3500 SIERRA	5,508
55	CB	GMC	C3500 SIERRA XC	527
56	CB	GMC	K1500	55
57	CB	GMC	K2500	786

OUTPUT OF CHECKSTY.SAS (CONTINUED)
NUMBER OF TRUCKS BY BODY STYLE
MAKE AND MODEL - 1995

OBS	STYL_ABR	TMAK_NAM	MODL_NAM	TRUCKS
58	CB	GMC	K2500 SIERRA	775
59	CB	GMC	K2500 SIERRA XC	245
60	CB	GMC	K3500	7,532
61	CB	GMC	K3500 EXT CAB	29
62	CB	GMC	K3500 SIERRA	1,557
63	CB	GMC	K3500 SIERRA XC	302
64	CB	GMC	R1500	177
65	CB	GMC	R2500	388
66	CB	GMC	R3500	13,957
67	CB	GMC	S1500	831
68	CB	GMC	V1500	158
69	CB	GMC	V2500	19
70	CB	GMC	V3500	2,734
71	CB	INTERNATIONAL	100	79
72	CB	INTERNATIONAL	1310	3
73	CB	INTERNATIONAL	150	5
74	CB	INTERNATIONAL	200	1,959
75	CB	IVECO/MAGIRUS	Z-100	305
76	CB	IVECO/MAGIRUS	Z-110	566
77	CB	JEEP	J10	4
78	CB	JEEP	J20	59
79	CB	NISSAN/DATSUN/UD	720	412
80	CB	NISSAN/DATSUN/UD	D21	1,406
81	CB	NISSAN/DATSUN/UD	E620	2,047
82	CB	NISSAN/DATSUN/UD	E720	4,363
83	CB	NISSAN/DATSUN/UD	US 720	332
84	CB	NISSAN/DATSUN/UD	US D21	1,367
85	CB	NISSAN/DATSUN/UD	US E720	1,093
86	CB	TOYOTA	RN42L LONG BED	24,412
87	CB	TOYOTA	RN44 LNG BD DLX	4,865
88	CB	TOYOTA	RN44 LONG BED	3,422
89	CB	TOYOTA	RN44L LONG BED	1,949
90	CB	TOYOTA	RN55 LNG BD DLX	10,241
91	CB	TOYOTA	RN55 LONG BED	10,170
92	CB	TOYOTA	RN75 DLX	13,420
93	CB	TOYOTA	RN75 STD	7,501
94	CB	TOYOTA	VN82 LONG BED	1,732
95	CB	TOYOTA	VN94 S/L WB STD	24,395
96	CB	TOYOTA	VN94 SHORT BED	3,346
97	CE	CHEVROLET	C20	77
98	CE	CHEVROLET	C30	4,206
99	CE	CHEVROLET	C3500	1,160
100	CE	CHEVROLET	C3500 EXT CAB	5
101	CE	CHEVROLET	K30	626
102	CE	CHEVROLET	K3500	413
103	CE	CHEVROLET	K3500 EXT CAB	1
104	CE	CHEVROLET	R30	998
105	CE	CHEVROLET	R3500	1,042
106	CE	CHEVROLET	V30	215
107	CE	CHEVROLET	V3500	188
108	CE	DODGE	D200	168
109	CE	DODGE	D250	3
110	CE	DODGE	D300	168
111	CE	DODGE	D350	54
112	CE	DODGE	W200	73
113	CE	GMC	C2500	32
114	CE	GMC	C3500	1,145

OUTPUT OF CHECKSTY.SAS (CONTINUED)
NUMBER OF TRUCKS BY BODY STYLE
MAKE AND MODEL - 1995

OBS	STYL_ABR	TMAK_NAM	MODL_NAM	TRUCKS
115	CE	GMC	C3500 SIERRA	412
116	CE	GMC	K3500	265
117	CE	GMC	K3500 SIERRA	200
118	CE	GMC	R3500	1,041
119	CE	GMC	V3500	218
120	CV	DAIHATSU	ROCKY SE	2,958
121	CV	DAIHATSU	ROCKY SX	224
122	CV	DODGE	DAKOTA	319
123	CV	DODGE	DAKOTA SPORT	444
124	CV	SUZUKI	LJ80	1
125	CV	SUZUKI	SAMURAI	121,682
126	CV	SUZUKI	SAMURAI JA	3,841
127	CV	SUZUKI	SAMURAI JA/JS	1,735
128	CV	SUZUKI	SAMURAI JL	3,860
129	CV	SUZUKI	SIDEKICK	17,806
130	CV	SUZUKI	SIDEKICK JL/JLX	2,152
131	CV	SUZUKI	SIDEKICK JS	1,734
132	CV	SUZUKI	SIDEKICK JX	95
133	CV	SUZUKI	SIDEKICK JX/JLX	3
134	CV	SUZUKI	SJ410	540
135	CV	SUZUKI	US SIDEKICK JS	4,710
136	CV	SUZUKI	US SIDEKICK JX	10,524
137	CV	SUZUKI	US SIDEKICK JX/JLX	2,079
138	CY	CHEVROLET	G30	24,396
139	CY	DODGE	B300 MAXI	173
140	CY	DODGE	CB300	8,135
141	CY	FORD	E-250	810
142	CY	FORD	E-300	1,255
143	CY	FORD	E-350	30,490
144	CY	GMC	G3500	5,327
145	CY	IVECO/MAGIRUS	Z-100	276
146	CY	IVECO/MAGIRUS	Z-110	389
147	FC	CHEVROLET	P10	206
148	FC	CHEVROLET	P20	2,644
149	FC	CHEVROLET	P30	63,402
150	FC	DODGE	P200	3
151	FC	FORD	P-350	312
152	FC	FORD	P-400	1,308
153	FC	GMC	P1500	185
154	FC	GMC	P2500	229
155	FC	GMC	P3500	16,767
156	MS	INTERNATIONAL	MS1210	573
157	ST	CHEVROLET	C30	584
158	ST	GMC	C2500	2
159	ST	GMC	C3500	261
160	SW	JEEP	CHEROKEE	315,310
161	SW	JEEP	CHEROKEE BRIRWD	3,967
162	SW	JEEP	CHEROKEE CHIEF	21,020
163	SW	JEEP	CHEROKEE CNTRY	75,734
164	SW	JEEP	CHEROKEE LAREDO	351,677
165	SW	JEEP	CHEROKEE LIMITD	93,293
166	SW	JEEP	CHEROKEE PIONER	128,475
167	SW	JEEP	CHEROKEE POSTAL	1,385
168	SW	JEEP	CHEROKEE S	5,229
169	SW	JEEP	CHEROKEE SE	64,144
170	SW	JEEP	CHEROKEE SPORT	211,220
171	SW	JEEP	GRAND WAGONEER	90,254

OUTPUT OF CHECKSTY.SAS (CONTINUED)
NUMBER OF TRUCKS BY BODY STYLE
MAKE AND MODEL - 1995

OBS	STYL_ABR	TMAK_NAM	MODL_NAM	TRUCKS
172	SW	JEEP	WAGONEER	90,282
173	SW	JEEP	WAGONEER CUSTOM	7,755
174	SW	JEEP	WAGONEER LIMITD	36,365
175	SW	LAND ROVER	DISCOVERY	10,554
176	SW	LAND ROVER	RANGE ROVER	16,921
177	SW	LAND ROVER	RANGE ROVER LWB	8,149
178	SW	LAND ROVER	RANGE ROVER LWB SE	1,488
179	SW	TOYOTA	DJ81 LAND CRUISER	25,691
180	SW	TOYOTA	FJ60 LAND CRUISER	20,693
181	SW	TOYOTA	FJ62 LAND CRUISER	12,469
182	SW	TOYOTA	FJ80 LAND CRUISER	17,120
183	UT	INTERNATIONAL	SCOUT II	41,335
184	UT	INTERNATIONAL	SCOUT II SS2	969
185	UT	INTERNATIONAL	SCOUT II TRAVLR	9,064
186	UT	VOLKSWAGEN	181 THING	3,839
187	XT	INTERNATIONAL	100	630
188	XT	INTERNATIONAL	150	695
189	XT	INTERNATIONAL	200	166
				=====
				2,761,324

OUTPUT OF STYSHARE.SAS
1995 POLK - TRUCKS STYLES BY TYPE

----- BODY STYLE ABBREVIATION=CB -----

OBS	TYPE	TRUCKS
1	O	26,226
2	P	702,331
3	U	21,727
4	V	3
STYL_ABR		750,287

----- BODY STYLE ABBREVIATION=CE -----

OBS	TYPE	TRUCKS
5	O	998
6	P	11,086
7	U	626
STYL_ABR		12,710

----- BODY STYLE ABBREVIATION=CV -----

OBS	TYPE	TRUCKS
8	P	763
9	U	173,944
STYL_ABR		174,707

----- BODY STYLE ABBREVIATION=CY -----

OBS	TYPE	TRUCKS
10	O	665
11	U	8,135
12	V	62,451
STYL_ABR		71,251

----- BODY STYLE ABBREVIATION=FC -----

OBS	TYPE	TRUCKS
13	V	85,056

OUTPUT OF STYSHARE.SAS (CONTINUED)
1995 POLK - TRUCKS STYLES BY TYPE

----- BODY STYLE ABBREVIATION=MS -----

OBS	TYPE	TRUCKS
14	V	573

----- BODY STYLE ABBREVIATION=ST -----

OBS	TYPE	TRUCKS
15	P	847

----- BODY STYLE ABBREVIATION=SW -----

OBS	TYPE	TRUCKS
16	U	1,609,195

----- BODY STYLE ABBREVIATION=UT -----

OBS	TYPE	TRUCKS
17	U	55,207

----- BODY STYLE ABBREVIATION=XT -----

OBS	TYPE	TRUCKS
18	U	1,491
		=====
		2,761,324

OUTPUT OF AUTOS1.SAS
AUTOMOBILES BY STATE - 1995 POLK

OBS	ST_ABR	VEHICLES	TYPE
1	01	2060477	AUTO
2	02	178988	AUTO
3	04	1645717	AUTO
4	05	966817	AUTO
5	06	14011097	AUTO
6	08	1644319	AUTO
7	09	1845438	AUTO
8	10	416974	AUTO
9	11	234583	AUTO
10	12	7574524	AUTO
11	13	3166936	AUTO
12	15	521117	AUTO
13	16	482348	AUTO
14	17	5894131	AUTO
15	18	2785861	AUTO
16	19	1488571	AUTO
17	20	1243557	AUTO
18	21	1745730	AUTO
19	22	1808670	AUTO
20	23	551529	AUTO
21	24	2554066	AUTO
22	25	3194906	AUTO
23	26	4874718	AUTO
24	27	2229524	AUTO
25	28	1015560	AUTO
26	29	2436655	AUTO
27	30	347828	AUTO
28	31	759200	AUTO
29	32	636311	AUTO
30	33	678001	AUTO
31	34	4308635	AUTO
32	35	698014	AUTO
33	36	7883667	AUTO
34	37	3484657	AUTO
35	38	319563	AUTO
36	39	5844620	AUTO
37	40	1435091	AUTO
38	41	1450266	AUTO
39	42	5967461	AUTO
40	44	532003	AUTO
41	45	1686111	AUTO
42	46	360815	AUTO
43	47	2499382	AUTO
44	48	7357227	AUTO
45	49	739935	AUTO
46	50	298047	AUTO
47	51	3383124	AUTO
48	53	2517093	AUTO
49	54	779481	AUTO
50	55	2523379	AUTO
51	56	179157	AUTO

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OUTPUT OF LT1.SAS
REGISTRATIONS BY STATE AND VEHICLE TYPE - 1995 POLK

STATE GEO CODE	SUM					
	TYPE					ALL
	AUTO	OTHER	PICKUP	UTILITY	VAN	
	VEHICLES	VEHICLES	VEHICLES	VEHICLES	VEHICLES	
AL	2,060,477	4,591	805,941	187,602	205,767	3,264,377
AK	178,988	1,771	125,885	58,618	33,927	399,189
AZ	1,645,717	6,645	654,250	237,044	201,762	2,745,419
AR	966,817	2,420	577,004	115,026	112,705	1,773,972
CA	14011097	41,910	3,921,790	1,483,910	1,754,179	21212886
CO	1,644,319	6,101	603,080	358,447	203,940	2,815,888
CT	1,845,438	3,807	259,142	166,802	146,428	2,421,618
DE	416,974	1,112	89,722	43,230	49,885	600,923
DC	234,583	243	9,232	10,128	13,969	268,155
FL	7,574,524	15,898	1,503,715	618,035	901,541	10613713
GA	3,166,936	6,332	1,079,949	316,978	370,490	4,940,685
HI	521,117	871	143,971	55,378	67,453	788,791
ID	482,348	3,194	322,170	96,283	60,985	964,979
IL	5,894,131	14,440	925,690	459,037	705,498	7,998,796
IN	2,785,861	8,595	894,165	208,265	394,694	4,291,580
IA	1,488,571	6,129	549,578	126,207	195,463	2,365,948
KS	1,243,557	5,056	532,066	128,933	173,736	2,083,348
KY	1,745,730	4,485	703,301	144,318	191,140	2,788,973
LA	1,808,670	4,711	845,517	167,947	220,094	3,046,939
ME	551,529	1,757	214,873	63,873	59,592	891,623
MD	2,554,066	4,493	452,977	227,691	284,401	3,523,628
MA	3,194,906	6,948	408,279	295,257	280,448	4,185,838
MI	4,874,718	11,718	1,209,815	470,366	724,741	7,291,358

OUTPUT OF LT1.SAS (CONTINUED)
REGISTRATIONS BY STATE AND VEHICLE TYPE - 1995 POLK

STATE GEO CODE	SUM					
	TYPE					ALL VEHICLES
	AUTO	OTHER	PICKUP	UTILITY	VAN	
	VEHICLES	VEHICLES	VEHICLES	VEHICLES	VEHICLES	
MN	2,229,524	9,252	679,019	244,660	302,617	3,465,072
MS	1,015,560	2,585	508,028	88,941	100,551	1,715,665
MO	2,436,655	7,939	903,704	233,519	313,853	3,895,670
MT	347,828	2,564	255,874	67,310	43,141	716,717
NE	759,200	2,760	322,885	88,746	104,087	1,277,678
NV	636,311	2,810	242,340	109,939	69,943	1,061,343
NH	678,001	2,319	178,901	76,378	75,032	1,010,631
NJ	4,308,635	9,224	419,149	394,222	420,832	5,552,062
NM	698,014	2,831	399,573	120,461	86,706	1,307,585
NY	7,883,667	18,735	944,935	637,832	795,434	10280603
NC	3,484,657	6,160	1,153,245	332,253	390,516	5,366,831
ND	319,563	1,462	168,060	38,112	39,373	566,571
OH	5,844,620	13,863	1,281,535	387,225	752,712	8,279,956
OK	1,435,091	6,129	782,291	153,544	180,912	2,557,967
OR	1,450,266	9,941	668,557	213,955	212,754	2,555,474
PA	5,967,461	15,166	1,084,648	557,186	587,585	8,212,046
RI	532,003	1,258	75,145	39,219	43,861	691,486
SC	1,686,111	3,039	537,418	148,161	175,724	2,550,453
SD	360,815	1,964	182,274	49,828	47,739	642,619
TN	2,499,382	4,903	927,711	232,000	267,066	3,931,061
TX	7,357,227	17,474	3,159,838	990,878	878,599	12404017
UT	739,935	3,535	292,240	136,109	93,716	1,265,535
VT	298,047	1,119	105,356	39,383	33,566	477,471

OUTPUT OF LT1.SAS (CONTINUED)
REGISTRATIONS BY STATE AND VEHICLE TYPE - 1995 POLK

STATE GEO CODE	SUM					
	TYPE					ALL
	AUTO	OTHER	PICKUP	UTILITY	VAN	
	VEHICLES	VEHICLES	VEHICLES	VEHICLES	VEHICLES	VEHICLES
VA	3,383,124	6,816	882,610	349,385	376,307	4,998,242
WA	2,517,093	15,474	973,737	340,617	352,050	4,198,972
WV	779,481	1,956	338,661	92,513	78,832	1,291,443
WI	2,523,379	8,372	687,112	250,862	347,776	3,817,501
WY	179,157	1,177	141,585	48,534	23,004	393,456
ALL	123241881	344,054	35128543	12501148	14547127	185762753

Part 2:

Vehicle Miles of Travel

OUTPUT OF AUTOS2.SAS
AUTOMOBILES BY YEAR - 1995 POLK

OBS	YEAR	VEHICLES	TYPE
1	0	409979	AUTO
2	1	3860454	AUTO
3	74	627841	AUTO
4	75	588117	AUTO
5	76	1026011	AUTO
6	77	1672671	AUTO
7	78	2250866	AUTO
8	79	2817453	AUTO
9	80	2583720	AUTO
10	81	3023624	AUTO
11	82	3429827	AUTO
12	83	4527397	AUTO
13	84	6843004	AUTO
14	85	7822933	AUTO
15	86	8664605	AUTO
16	87	8839276	AUTO
17	88	9145629	AUTO
18	89	8956933	AUTO
19	90	8151296	AUTO
20	91	7941567	AUTO
21	92	7651425	AUTO
22	93	8218607	AUTO
23	94	8150339	AUTO
24	95	6030005	AUTO
25	96	8302	AUTO

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OUTPUT OF AUTOS2.SAS (CONTINUED)
AUTOMOBILES BY YEAR - 1995 POLK

	TYPE
	AUTO
	SUM
	VEHICLES
LAST TWO DIGITS OF YEAR	
J. 10+	41,211,011
I. 9	8,693,525
H. 8	8,868,779
G. 7	9,176,155
F. 6	8,986,829
E. 5	8,178,503
D. 4	7,968,074
C. 3	7,676,963
B. 2	8,246,038
A. 0-1	14,236,004
ALL	123,241,881

OUTPUT OF LT2.SAS
NUMBER OF LIGHT TRUCKS BY AGE AND TYPE FOR VMT WORK - 1995 POLK

	TYPE		
	OTHER	PICKUP	VAN/UTI
	SUM	SUM	SUM
	VEHICLES	VEHICLES	VEHICLES
LAST TWO DIGITS OF YEAR			
J. 10+	233,289	14,101,275	6,893,010
I. 9	16,147	2,322,603	1,488,310
H. 8	14,349	1,947,828	1,673,144
G. 7	16,731	2,315,252	1,826,033
F. 6	13,708	2,249,164	1,972,281
E. 5	7,795	1,876,247	1,790,305
D. 4	6,116	1,923,355	1,927,283
C. 3	8,706	1,904,415	2,028,263
B. 2	10,803	2,188,158	2,561,352
A. 0-1	16,650	4,238,890	4,949,408
ALL	344,296	35,067,188	27,109,388

OUTPUT OF LDVTIUS1.SAS
 AVERAGE ANNUAL VMT PER VEHICLE BY TRUCK TYPE AND
 VEHICLE AGE - FOR BUSINESS USE AND TRUCKS
 WITH TIUGVW LT 10,000 LBS ONLY - 1992 TIUS

	ANNMIL			
	MDLYR			
	<=1		2	
	N	MEAN	N	MEAN
SAMTYP				
PICKUP	757.00	19831.83	363.00	22041.39
VAN	501.00	22319.41	255.00	20336.94
SU LGT	405.00	19223.87	299.00	18897.91
ALL	1663.00	20748.75	917.00	21242.25

(CONTINUED)

AVERAGE ANNUAL VMT PER VEHICLE BY TRUCK TYPE AND
 VEHICLE AGE - FOR BUSINESS USE AND TRUCKS
 WITH TIUGVW LT 10,000 LBS ONLY - 1992 TIUS

	ANNMIL			
	MDLYR			
	3		4	
	N	MEAN	N	MEAN
SAMTYP				
PICKUP	425.00	19320.22	384.00	18097.77
VAN	261.00	21226.99	207.00	19350.93
SU LGT	356.00	18293.77	447.00	18558.40
ALL	1042.00	20018.79	1038.00	18559.48

OUTPUT OF LDVTIUS1.SAS (CONTINUED)
 AVERAGE ANNUAL VMT PER VEHICLE BY TRUCK TYPE AND
 VEHICLE AGE - FOR BUSINESS USE AND TRUCKS
 WITH TIUGVW LT 10,000 LBS ONLY - 1992 TIUS

	ANNMIL			
	MDLYR			
	5		6	
	N	MEAN	N	MEAN
SAMTYP				
PICKUP	290.00	17050.44	350.00	16089.91
VAN	175.00	16726.18	198.00	17474.86
SU LGT	394.00	14671.20	458.00	14904.61
ALL	859.00	16766.27	1006.00	16440.81

(CONTINUED)

AVERAGE ANNUAL VMT PER VEHICLE BY TRUCK TYPE AND
 VEHICLE AGE - FOR BUSINESS USE AND TRUCKS
 WITH TIUGVW LT 10,000 LBS ONLY - 1992 TIUS

	ANNMIL			
	MDLYR			
	7		8	
	N	MEAN	N	MEAN
SAMTYP				
PICKUP	293.00	13391.95	252.00	13974.73
VAN	182.00	13834.51	117.00	14833.24
SU LGT	399.00	16255.48	357.00	12805.83
ALL	874.00	13797.28	726.00	14102.82

OUTPUT OF LDVTIUS1.SAS (CONTINUED)
 AVERAGE ANNUAL VMT PER VEHICLE BY TRUCK TYPE AND
 VEHICLE AGE - FOR BUSINESS USE AND TRUCKS
 WITH TIUGVW LT 10,000 LBS ONLY - 1992 TIUS

	ANNMIL			
	MDLYR			
	9		10+	
	N	MEAN	N	MEAN
SAMTYP				
PICKUP	194.00	13439.56	1574.00	9248.89
VAN	76.00	13220.73	500.00	10754.96
SU LGT	243.00	11961.95	3293.00	6551.13
ALL	513.00	13236.05	5367.00	9156.28

(CONTINUED)

AVERAGE ANNUAL VMT PER VEHICLE BY TRUCK TYPE AND
 VEHICLE AGE - FOR BUSINESS USE AND TRUCKS
 WITH TIUGVW LT 10,000 LBS ONLY - 1992 TIUS

	ANNMIL	
	ALL	
	N	MEAN
SAMTYP		
PICKUP	4882.00	15294.94
VAN	2472.00	17547.81
SU LGT	6651.00	11545.45
ALL	14005.00	15678.12

OUTPUT OF LDVTIUS1.SAS (CONTINUED)
 AVERAGE ANNUAL VMT PER VEHICLE BY TRUCK TYPE AND
 VEHICLE AGE - FOR PERSONAL USE AND TRUCKS
 WITH TIUGVW LT 10,000 LBS ONLY - 1992 TIUS

	ANNMIL			
	MDLYR			
	<=1		2	
	N	MEAN	N	MEAN
SAMTYP				
PICKUP	1651.00	14878.39	797.00	15411.60
VAN	1695.00	15630.25	866.00	14431.73
SU LGT	60.00	17154.58	18.00	9984.63
ALL	3406.00	15247.96	1681.00	14896.94

(CONTINUED)

AVERAGE ANNUAL VMT PER VEHICLE BY TRUCK TYPE AND
 VEHICLE AGE - FOR PERSONAL USE AND TRUCKS
 WITH TIUGVW LT 10,000 LBS ONLY - 1992 TIUS

	ANNMIL			
	MDLYR			
	3		4	
	N	MEAN	N	MEAN
SAMTYP				
PICKUP	965.00	14664.01	1027.00	14267.39
VAN	938.00	13962.98	889.00	13965.29
SU LGT	35.00	8592.18	40.00	9379.67
ALL	1938.00	14311.83	1956.00	14124.73

OUTPUT OF LDVTIUS1.SAS (CONTINUED)
AVERAGE ANNUAL VMT PER VEHICLE BY TRUCK TYPE AND
VEHICLE AGE - FOR PERSONAL USE AND TRUCKS
WITH TIUGVW LT 10,000 LBS ONLY - 1992 TIUS

	ANNMIL			
	MDLYR			
	5		6	
	N	MEAN	N	MEAN
SAMTYP				
PICKUP	907.00	13557.88	1155.00	12721.82
VAN	841.00	14255.27	813.00	12699.03
SU LGT	35.00	11543.72	42.00	8025.59
ALL	1783.00	13894.81	2010.00	12704.33

(CONTINUED)

AVERAGE ANNUAL VMT PER VEHICLE BY TRUCK TYPE AND
VEHICLE AGE - FOR PERSONAL USE AND TRUCKS
WITH TIUGVW LT 10,000 LBS ONLY - 1992 TIUS

	ANNMIL			
	MDLYR			
	7		8	
	N	MEAN	N	MEAN
SAMTYP				
PICKUP	839.00	12056.92	882.00	11469.70
VAN	726.00	12265.02	594.00	11089.86
SU LGT	36.00	6597.77	47.00	8777.84
ALL	1601.00	12137.59	1523.00	11310.25

OUTPUT OF LDVTIUS1.SAS (CONTINUED)
 AVERAGE ANNUAL VMT PER VEHICLE BY TRUCK TYPE AND
 VEHICLE AGE - FOR PERSONAL USE AND TRUCKS
 WITH TIUGVW LT 10,000 LBS ONLY - 1992 TIUS

	ANNMIL			
	MDLYR			
	9		10+	
	N	MEAN	N	MEAN
SAMTYP				
PICKUP	602.00	10980.79	5767.00	7635.71
VAN	259.00	11207.82	1887.00	7469.67
SU LGT	41.00	9071.03	1315.00	3285.26
ALL	902.00	11045.05	8969.00	7523.67

(CONTINUED)

AVERAGE ANNUAL VMT PER VEHICLE BY TRUCK TYPE AND
 VEHICLE AGE - FOR PERSONAL USE AND TRUCKS
 WITH TIUGVW LT 10,000 LBS ONLY - 1992 TIUS

	ANNMIL	
	ALL	
	N	MEAN
SAMTYP		
PICKUP	14592.00	11305.30
VAN	9508.00	12601.40
SU LGT	1669.00	4620.84
ALL	25769.00	11770.74

OUTPUT OF LDVTIUS2.SAS
 AVERAGE ANNUAL VMT PER VEHICLE BY TRUCK TYPE AND
 VEHICLE AGE - FOR BUSINESS USE AND TRUCKS
 WITH TIUGVW LT 10,000 LBS ONLY - 1987 TIUS

	ANNMIL			
	MDLYR			
	<=1		2	
	N	MEAN	N	MEAN
SAMTYP				
PICKUP	919.00	17970.49	498.00	17883.99
VAN	607.00	17777.76	344.00	18197.13
SU LGT	713.00	17070.22	412.00	17802.92
ALL	2239.00	17844.27	1254.00	18004.09

(CONTINUED)

AVERAGE ANNUAL VMT PER VEHICLE BY TRUCK TYPE AND
 VEHICLE AGE - FOR BUSINESS USE AND TRUCKS
 WITH TIUGVW LT 10,000 LBS ONLY - 1987 TIUS

	ANNMIL			
	MDLYR			
	3		4	
	N	MEAN	N	MEAN
SAMTYP				
PICKUP	482.00	17023.53	334.00	15618.26
VAN	252.00	17494.19	122.00	15143.79
SU LGT	328.00	17447.14	264.00	14916.36
ALL	1062.00	17196.77	720.00	15450.56

OUTPUT OF LDVTIUS2.SAS (CONTINUED)
 AVERAGE ANNUAL VMT PER VEHICLE BY TRUCK TYPE AND
 VEHICLE AGE - FOR BUSINESS USE AND TRUCKS
 WITH TIUGVW LT 10,000 LBS ONLY - 1987 TIUS

	ANNMIL			
	MDLYR			
	5		6	
	N	MEAN	N	MEAN
SAMTYP				
PICKUP	323.00	14169.86	286.00	12709.33
VAN	89.00	16804.53	90.00	12082.85
SU LGT	324.00	14463.70	317.00	13203.30
ALL	736.00	14717.09	693.00	12619.82

(CONTINUED)

AVERAGE ANNUAL VMT PER VEHICLE BY TRUCK TYPE AND
 VEHICLE AGE - FOR BUSINESS USE AND TRUCKS
 WITH TIUGVW LT 10,000 LBS ONLY - 1987 TIUS

	ANNMIL			
	MDLYR			
	7		8	
	N	MEAN	N	MEAN
SAMTYP				
PICKUP	275.00	12160.95	424.00	10725.47
VAN	76.00	13385.81	179.00	13239.37
SU LGT	285.00	11937.21	523.00	11160.80
ALL	636.00	12386.34	1126.00	11472.08

OUTPUT OF LDVTIUS2.SAS (CONTINUED)
 AVERAGE ANNUAL VMT PER VEHICLE BY TRUCK TYPE AND
 VEHICLE AGE - FOR BUSINESS USE AND TRUCKS
 WITH TIUGVW LT 10,000 LBS ONLY - 1987 TIUS

	ANNMIL			
	MDLYR			
	9		10+	
	N	MEAN	N	MEAN
SAMTYP				
PICKUP	344.00	9982.95	1660.00	7015.79
VAN	135.00	10887.12	470.00	8151.62
SU LGT	413.00	10213.42	3468.00	5954.83
ALL	892.00	10254.68	5598.00	7047.70

(CONTINUED)

AVERAGE ANNUAL VMT PER VEHICLE BY TRUCK TYPE AND
 VEHICLE AGE - FOR BUSINESS USE AND TRUCKS
 WITH TIUGVW LT 10,000 LBS ONLY - 1987 TIUS

	ANNMIL	
	ALL	
	N	MEAN
SAMTYP		
PICKUP	5545.00	12696.68
VAN	2364.00	14735.60
SU LGT	7047.00	10399.43
ALL	14956.00	13037.86

OUTPUT OF LDVTIUS2.SAS (CONTINUED)
 AVERAGE ANNUAL VMT PER VEHICLE BY TRUCK TYPE AND
 VEHICLE AGE - FOR PERSONAL USE AND TRUCKS
 WITH TIUGVW LT 10,000 LBS ONLY - 1987 TIUS

	ANNMIL			
	MDLYR			
	<=1		2	
	N	MEAN	N	MEAN
SAMTYP				
PICKUP	2218.00	13177.10	1058.00	12835.21
VAN	1587.00	13456.92	831.00	13547.29
SU LGT	71.00	9874.09	43.00	9151.63
ALL	3876.00	13287.50	1932.00	13142.05

(CONTINUED)

AVERAGE ANNUAL VMT PER VEHICLE BY TRUCK TYPE AND
 VEHICLE AGE - FOR PERSONAL USE AND TRUCKS
 WITH TIUGVW LT 10,000 LBS ONLY - 1987 TIUS

	ANNMIL			
	MDLYR			
	3		4	
	N	MEAN	N	MEAN
SAMTYP				
PICKUP	1042.00	12395.14	917.00	11819.53
VAN	670.00	12762.39	347.00	11304.29
SU LGT	63.00	9829.69	46.00	8526.94
ALL	1775.00	12537.38	1310.00	11664.23

OUTPUT OF LDVTIUS2.SAS (CONTINUED)
 AVERAGE ANNUAL VMT PER VEHICLE BY TRUCK TYPE AND
 VEHICLE AGE - FOR PERSONAL USE AND TRUCKS
 WITH TIUGVW LT 10,000 LBS ONLY - 1987 TIUS

	ANNMIL			
	MDLYR			
	5		6	
	N	MEAN	N	MEAN
SAMTYP				
PICKUP	728.00	11513.37	662.00	10973.91
VAN	220.00	11765.62	153.00	11041.09
SU LGT	40.00	7959.16	54.00	8428.51
ALL	988.00	11553.08	869.00	10971.89

(CONTINUED)

AVERAGE ANNUAL VMT PER VEHICLE BY TRUCK TYPE AND
 VEHICLE AGE - FOR PERSONAL USE AND TRUCKS
 WITH TIUGVW LT 10,000 LBS ONLY - 1987 TIUS

	ANNMIL			
	MDLYR			
	7		8	
	N	MEAN	N	MEAN
SAMTYP				
PICKUP	714.00	9844.40	1064.00	9005.23
VAN	182.00	8909.71	536.00	9880.71
SU LGT	29.00	10546.24	68.00	8091.23
ALL	925.00	9649.16	1668.00	9283.14

OUTPUT OF LDVTIUS2.SAS (CONTINUED)
 AVERAGE ANNUAL VMT PER VEHICLE BY TRUCK TYPE AND
 VEHICLE AGE - FOR PERSONAL USE AND TRUCKS
 WITH TIUGVW LT 10,000 LBS ONLY - 1987 TIUS

	ANNMIL			
	MDLYR			
	9		10+	
	N	MEAN	N	MEAN
SAMTYP				
PICKUP	1046.00	8964.70	5764.00	6272.26
VAN	473.00	9666.73	1811.00	6382.07
SU LGT	83.00	5989.24	1825.00	3290.70
ALL	1602.00	9166.40	9400.00	6225.66

(CONTINUED)

AVERAGE ANNUAL VMT PER VEHICLE BY TRUCK TYPE AND
 VEHICLE AGE - FOR PERSONAL USE AND TRUCKS
 WITH TIUGVW LT 10,000 LBS ONLY - 1987 TIUS

	ANNMIL	
	ALL	
	N	MEAN
SAMTYP		
PICKUP	15213.00	9481.52
VAN	6810.00	10706.51
SU LGT	2322.00	4424.76
ALL	24345.00	9801.06

OUTPUT OF LDVTIUS3.SAS
 TRUCKS BY TRUCK TYPE AND
 VEHICLE AGE - FOR BUSINESS USE TRUCKS
 WITH TIUGVW LT 10,000 LBS ONLY - 1992 TIUS

	EXPANF			
	MDLYR			
	<=1	2	3	4
	SUM	SUM	SUM	SUM
SAMTYP				
PICKUP	1269449.43	618237.10	616978.17	574845.30
VAN	797753.17	409080.21	444662.92	335454.58
SU LGT	59473.74	52771.68	61590.41	72210.59
ALL	2126676.34	1080088.99	1123231.50	982510.47

(CONTINUED)

TRUCKS BY TRUCK TYPE AND
 VEHICLE AGE - FOR BUSINESS USE TRUCKS
 WITH TIUGVW LT 10,000 LBS ONLY - 1992 TIUS

	EXPANF			
	MDLYR			
	5	6	7	8
	SUM	SUM	SUM	SUM
SAMTYP				
PICKUP	503740.63	626575.41	411716.85	449072.37
VAN	288616.85	320018.94	300624.05	175290.03
SU LGT	62802.72	72292.86	63335.44	54368.36
ALL	855160.20	1018887.21	775676.34	678730.76

OUTPUT OF LDVTIUS3.SAS (CONTINUED)
 TRUCKS BY TRUCK TYPE AND
 VEHICLE AGE - FOR BUSINESS USE TRUCKS
 WITH TIUGVW LT 10,000 LBS ONLY - 1992 TIUS

	EXPANF		
	MDLYR		ALL
	9	10+	
	SUM	SUM	SUM
SAMTYP			
PICKUP	272065.27	2234261.73	7576942.26
VAN	108190.11	715723.95	3895414.81
SU LGT	42155.66	518639.80	1059641.26
ALL	422411.04	3468625.48	12531998.33

(CONTINUED)

TRUCKS BY TRUCK TYPE AND
 VEHICLE AGE - FOR PERSONAL USE AND TRUCKS
 WITH TIUGVW LT 10,000 LBS ONLY - 1992 TIUS

	EXPANF			
	MDLYR			
	<=1	2	3	4
	SUM	SUM	SUM	SUM
SAMTYP				
PICKUP	3020923.35	1406427.28	1702674.33	1707978.66
VAN	2888522.01	1530085.82	1630883.91	1381030.97
SU LGT	9075.18	2446.46	5368.90	4942.73
ALL	5918520.54	2938959.56	3338927.14	3093952.36

OUTPUT OF LDVTIUS3.SAS (CONTINUED)
 TRUCKS BY TRUCK TYPE AND
 VEHICLE AGE - FOR PERSONAL USE AND TRUCKS
 WITH TIUGVW LT 10,000 LBS ONLY - 1992 TIUS

	EXPANF			
	MDLYR			
	5	6	7	8
	SUM	SUM	SUM	SUM
SAMTYP				
PICKUP	1495598.52	1937822.56	1399344.99	1438163.57
VAN	1430739.09	1456669.73	1173458.38	974261.27
SU LGT	5015.33	5589.51	6613.25	5763.77
ALL	2931352.94	3400081.80	2579416.62	2418188.61

(CONTINUED)

TRUCKS BY TRUCK TYPE AND
 VEHICLE AGE - FOR PERSONAL USE AND TRUCKS
 WITH TIUGVW LT 10,000 LBS ONLY - 1992 TIUS

	EXPANF		
	MDLYR		
	9	10+	ALL
	SUM	SUM	SUM
SAMTYP			
PICKUP	991340.53	9376566.03	24476839.82
VAN	437151.69	3045570.57	15948373.44
SU LGT	3771.91	209064.77	257651.81
ALL	1432264.13	12631201.37	40682865.07

OUTPUT OF LDVNPTS.SAS
AVERAGE ANNUAL VMT PER VEHICLE BY
VEHICLE TYPE AND AGE - 1990 NPTS

VEHICLE TYPE	ANNUALIZED VEHICLE MILES			
	VEHAGE			
	<= 1		2	
	N	MEAN	N	MEAN
AUTO	1788.00	16967.30	2543.00	16232.40
VAN	278.00	18486.00	289.00	17952.75
PICKUP	420.00	16767.78	557.00	17441.74
OTH TRK	2.00	44299.01	8.00	23793.67
ALL	2488.00	17128.66	3397.00	16620.66

(CONTINUED)

AVERAGE ANNUAL VMT PER VEHICLE BY
VEHICLE TYPE AND AGE - 1990 NPTS

VEHICLE TYPE	ANNUALIZED VEHICLE MILES			
	VEHAGE			
	3		4	
	N	MEAN	N	MEAN
AUTO	2477.00	14433.66	2478.00	13780.51
VAN	235.00	14990.17	214.00	14306.90
PICKUP	514.00	15788.41	470.00	12668.19
OTH TRK	5.00	7021.17	7.00	11066.53
ALL	3231.00	14696.92	3169.00	13631.51

OUTPUT OF LDVNPTS.SAS (CONTINUED)
 AVERAGE ANNUAL VMT PER VEHICLE BY
 VEHICLE TYPE AND AGE - 1990 NPTS

	ANNUALIZED VEHICLE MILES			
	VEHAGE			
	5		6	
	N	MEAN	N	MEAN
VEHICLE TYPE				
AUTO	2584.00	12566.81	2406.00	12892.70
VAN	211.00	13381.37	170.00	13572.16
PICKUP	465.00	13994.46	398.00	14414.08
OTH TRK	8.00	35029.00	8.00	20771.68
ALL	3268.00	12886.65	2982.00	13182.70

(CONTINUED)

AVERAGE ANNUAL VMT PER VEHICLE BY
 VEHICLE TYPE AND AGE - 1990 NPTS

	ANNUALIZED VEHICLE MILES			
	VEHAGE			
	7		8	
	N	MEAN	N	MEAN
VEHICLE TYPE				
AUTO	2076.00	12486.85	1344.00	12265.62
VAN	116.00	11635.36	61.00	14322.43
PICKUP	345.00	12458.64	246.00	14007.99
OTH TRK	6.00	9196.10	1.00	39415.00
ALL	2543.00	12434.98	1652.00	12622.35

OUTPUT OF LDVNPTS.SAS (CONTINUED)
AVERAGE ANNUAL VMT PER VEHICLE BY
VEHICLE TYPE AND AGE - 1990 NPTS

VEHICLE TYPE	ANNUALIZED VEHICLE MILES			
	VEHAGE			
	9		10+	
	N	MEAN	N	MEAN
AUTO	1173.00	11158.43	6944.00	9259.30
VAN	38.00	11291.39	321.00	11156.13
PICKUP	201.00	13211.27	1790.00	8566.36
OTH TRK	3.00	42309.06	114.00	12139.17
ALL	1415.00	11540.41	9169.00	9227.30

(CONTINUED)

AVERAGE ANNUAL VMT PER VEHICLE BY
VEHICLE TYPE AND AGE - 1990 NPTS

VEHICLE TYPE	ANNUALIZED VEHICLE MILES			
	VEHAGE			
	DKS		ALL	
	N	MEAN	N	MEAN
AUTO	227.00	13035.65	26040.00	12503.01
VAN	16.00	9089.92	1949.00	14519.87
PICKUP	67.00	10748.63	5473.00	12636.53
OTH TRK	11.00	17878.10	173.00	14951.21
ALL	321.00	12457.81	33635.00	12656.41

Appendix D

Registrations, 1985-95

Table D.1. Final Private, Federal, and SCM Light-duty Vehicle Counts by State and Type, 1985

State	Private & Commercial					Federal					State, County, and Municipal					1985 Total
	Auto	Pickup	Utility	Van	Other Trk	Auto	Pickup	Utility	Van	Other Trk	Auto	Pickup	Utility	Van	Other Trk	
AL	2,425,177	614,174	48,917	101,267	2,721	1,468	2,196	175	362	10	22,921	5,805	462	957	26	3,226,637
AK	182,435	102,883	28,828	17,302	688	444	1,171	328	197	8	3,972	2,240	628	377	15	341,515
AZ	1,525,371	474,064	79,374	94,366	2,303	1,964	3,724	624	741	18	16,447	5,111	856	1,017	25	2,206,006
AR	893,276	346,971	32,232	38,383	1,274	819	1,273	118	141	5	11,256	4,372	406	484	16	1,331,025
CA	13,823,864	2,747,396	338,508	787,747	17,442	11,167	17,498	2,156	5,017	111	133,487	26,530	3,269	7,607	168	17,921,968
CO	1,873,293	504,363	158,169	102,022	2,897	1,536	3,197	1,003	647	18	18,438	4,964	1,557	1,004	29	2,673,137
CT	2,093,593	189,163	45,613	81,345	2,454	778	1,449	349	623	19	19,138	1,729	417	744	22	2,437,437
DE	360,085	52,519	10,010	19,522	672	240	272	52	101	3	4,460	651	124	242	8	448,962
DC	290,728	7,771	2,297	11,093	273	2,238	731	216	1,043	26	7,619	204	60	291	7	324,597
FL	7,624,668	1,127,650	160,029	483,806	9,420	4,164	5,235	743	2,246	44	57,505	8,505	1,207	3,649	71	9,488,940
GA	3,380,761	783,682	72,784	164,069	3,989	2,190	3,062	284	641	16	65,672	15,223	1,414	3,187	77	4,497,052
HI	514,499	76,126	16,211	26,101	346	451	616	131	211	3	6,971	1,032	220	354	5	643,277
ID	484,072	239,821	37,607	25,663	721	583	2,143	336	229	6	5,068	2,511	394	269	8	799,429
IL	6,034,687	799,191	165,198	331,169	12,433	3,087	3,554	735	1,473	55	60,236	7,977	1,649	3,306	124	7,424,874
IN	2,855,951	631,872	77,980	173,878	5,410	1,214	1,747	216	481	15	28,452	6,295	777	1,732	54	3,786,073
IA	1,870,537	466,232	52,279	89,931	1,821	607	1,396	156	269	5	17,455	4,351	488	839	17	2,506,384
KS	1,426,243	443,468	50,797	76,504	2,959	700	1,358	156	234	9	15,374	4,780	548	825	32	2,023,987
KY	1,810,961	507,224	55,156	79,160	2,247	1,391	1,896	206	296	8	18,412	5,157	561	805	23	2,483,503
LA	2,068,565	643,244	61,758	112,556	4,468	1,427	2,102	202	368	15	26,542	8,254	792	1,444	57	2,931,793
ME	576,770	165,301	25,875	26,249	790	377	508	80	81	2	6,745	1,933	303	307	9	805,331
MD	2,618,550	346,106	56,292	147,895	4,016	2,260	2,356	383	1,007	27	27,389	3,620	589	1,547	42	3,212,080
MA	3,122,010	283,055	81,174	142,042	5,473	2,334	2,092	600	1,050	40	35,980	3,262	936	1,637	63	3,681,750
MI	5,036,244	852,155	182,700	307,657	7,750	2,294	3,049	654	1,101	28	51,503	8,715	1,868	3,146	79	6,458,943
MN	2,449,482	504,407	91,836	124,850	3,788	1,317	2,092	381	518	16	26,961	5,552	1,011	1,374	42	3,213,626
MS	1,216,943	373,396	23,714	43,546	1,378	1,169	1,626	103	190	6	15,741	4,830	307	563	18	1,683,530
MO	2,549,219	643,159	83,466	129,391	6,312	2,671	1,913	248	385	19	25,495	6,432	835	1,294	63	3,450,900
MT	348,624	192,178	32,570	18,325	915	771	2,147	364	205	10	6,691	3,688	625	352	18	607,484
NE	814,881	241,033	33,896	44,015	1,992	940	1,141	160	208	9	11,394	3,370	474	615	28	1,154,156
NV	475,789	141,810	30,675	28,497	478	1,001	2,477	536	498	8	5,014	1,494	323	300	5	688,906
NH	710,142	157,553	31,042	40,634	2,101	518	412	81	106	5	5,616	1,246	245	321	17	950,040
NJ	4,127,597	293,880	77,477	203,505	5,309	1,924	2,820	744	1,953	51	50,299	3,581	944	2,480	65	4,772,628
NM	739,086	292,767	44,627	39,622	1,146	1,185	2,830	431	383	11	9,305	3,686	562	499	14	1,136,154
NY	7,563,075	645,256	169,667	370,443	9,804	7,309	5,298	1,393	3,041	80	123,244	10,515	2,765	6,037	160	8,918,086
NC	3,280,525	696,860	80,650	142,565	2,762	1,580	2,217	257	453	9	36,639	7,783	901	1,592	31	4,254,823
ND	370,374	154,061	21,019	17,863	1,025	520	834	114	97	6	3,606	1,500	205	174	10	571,405
OH	6,332,658	964,481	153,852	356,876	9,403	2,698	3,175	507	1,175	31	57,711	8,790	1,402	3,252	86	7,896,096
OK	1,858,504	660,717	60,947	99,354	2,738	1,312	2,128	196	320	9	17,777	6,320	583	950	26	2,711,882
OR	1,425,425	474,943	64,750	92,073	1,778	1,194	3,675	501	712	14	15,492	5,162	704	1,001	19	2,087,442
PA	5,579,569	788,127	203,833	266,178	13,565	4,400	4,254	1,100	1,437	73	45,764	6,464	1,672	2,183	111	6,918,731
RI	512,523	45,462	9,629	22,182	551	208	353	75	172	4	5,938	527	112	257	6	597,998
SC	1,687,944	345,964	34,058	72,006	1,283	1,376	2,038	201	424	8	21,450	4,396	433	915	16	2,172,511
SD	415,868	147,837	21,827	19,649	632	488	1,120	165	149	5	3,176	1,129	167	150	5	612,365
TN	2,735,245	688,847	69,339	118,644	3,183	2,915	4,072	410	701	19	23,965	6,035	608	1,039	28	3,655,051
TX	8,352,734	2,600,449	354,256	446,912	13,644	5,471	9,600	1,308	1,650	50	77,643	24,172	3,293	4,154	127	11,895,463
UT	700,935	248,690	53,395	41,127	1,885	806	1,726	371	285	13	9,044	3,209	689	531	24	1,062,730
VT	278,013	72,851	16,513	13,578	569	288	184	42	34	1	3,466	908	206	169	7	386,831
VA	3,239,743	617,619	93,015	161,445	4,410	2,207	3,390	511	886	24	34,958	6,664	1,004	1,742	48	4,167,665
WA	2,470,076	642,253	84,260	150,643	4,065	2,431	4,953	650	1,162	31	26,041	6,771	888	1,588	43	3,395,854
WV	755,881	250,346	53,855	35,835	1,366	763	800	172	115	4	10,507	3,480	749	498	19	1,114,390
WI	2,395,513	419,002	86,582	128,675	2,851	960	1,707	353	524	12	29,866	5,224	1,079	1,604	36	3,073,987
WY	246,282	147,407	36,370	14,195	818	336	1,144	282	110	6	3,561	2,131	526	205	12	453,386
Total	126,524,988	25,855,786	3,956,907	6,682,356	192,320	92,487	132,751	21,556	36,453	1,028	1,367,405	278,279	42,832	71,610	2,060	165,258,818

Table D.2. Final Private, Federal, and SCM Light-Duty Vehicle Counts by State and Type, 1986

State	Private & Commercial					Federal					State, County, and Municipal					1986 Total
	Auto	Pickup	Utility	Van	Other Trk	Auto	Pickup	Utility	Van	Other Trk	Auto	Pickup	Utility	Van	Other Trk	
AL	2,500,125	642,568	60,600	111,003	2,695	1,508	2,124	200	367	9	23,039	5,921	558	1,023	25	3,351,765
AK	186,980	104,957	30,820	17,789	778	456	1,141	335	193	8	3,932	2,207	648	374	16	350,635
AZ	1,589,000	502,257	85,595	104,118	2,510	2,018	3,636	620	754	18	16,924	5,349	912	1,109	27	2,314,845
AR	925,619	344,659	37,296	42,555	1,020	841	1,225	133	151	4	11,484	4,276	463	528	13	1,370,266
CA	14,268,498	2,965,302	437,288	835,713	20,726	11,474	16,987	2,505	4,787	119	135,407	28,141	4,150	7,931	197	18,739,223
CO	1,858,018	507,224	172,442	104,716	2,954	1,578	3,085	1,049	637	18	18,833	5,141	1,748	1,061	30	2,678,533
CT	2,145,406	214,785	53,979	91,714	2,856	800	1,420	357	606	19	19,501	1,952	491	834	26	2,534,746
DE	366,418	55,998	11,521	21,399	799	246	263	54	101	4	4,587	701	144	268	10	462,513
DC	257,367	7,057	2,289	9,769	276	2,299	722	234	1,000	28	7,608	209	68	289	8	289,223
FL	7,991,024	1,237,691	202,353	533,537	10,909	4,278	5,076	830	2,188	45	59,022	9,142	1,495	3,941	81	10,061,610
GA	3,537,240	841,213	92,919	183,172	4,653	2,250	2,955	326	643	16	71,420	16,985	1,876	3,698	94	4,759,461
HI	540,034	83,428	19,000	28,751	383	464	600	137	207	3	6,996	1,081	246	372	5	681,707
ID	484,792	231,115	39,505	26,939	896	599	2,070	354	241	8	5,163	2,461	421	287	10	794,861
IL	5,775,773	745,819	162,193	339,154	12,473	3,171	3,391	737	1,542	57	61,765	7,976	1,734	3,627	133	7,119,545
IN	2,951,540	656,819	85,017	191,475	5,772	1,247	1,692	219	493	15	28,840	6,418	831	1,871	56	3,932,306
IA	1,852,111	461,396	55,507	97,274	2,112	624	1,346	162	284	6	18,158	4,523	544	954	21	2,495,022
KS	1,434,976	448,320	57,228	84,462	3,167	720	1,307	167	246	9	15,681	4,899	625	923	35	2,052,765
KY	1,850,504	519,966	59,987	86,263	2,562	1,430	1,842	212	306	9	18,872	5,303	612	880	26	2,548,775
LA	1,963,703	618,161	66,314	115,048	3,997	1,466	2,034	218	379	13	25,991	8,182	878	1,523	53	2,807,960
ME	593,018	176,767	28,666	29,165	1,026	387	496	80	82	3	6,852	2,043	331	337	12	839,264
MD	2,656,451	365,599	65,726	160,814	4,626	2,322	2,276	409	1,001	29	27,460	3,779	679	1,662	48	3,292,882
MA	3,171,525	307,941	94,889	153,484	5,945	2,399	2,040	628	1,017	39	36,239	3,519	1,084	1,754	68	3,782,571
MI	5,111,734	879,014	172,733	314,981	8,829	2,357	3,040	597	1,089	31	52,912	9,099	1,788	3,260	91	6,561,554
MN	2,217,003	451,663	90,524	117,461	3,998	1,353	2,014	404	524	18	27,455	5,593	1,121	1,455	50	2,920,636
MS	1,218,182	386,928	26,684	50,324	1,387	1,201	1,575	109	205	6	15,609	4,958	342	645	18	1,708,173
MO	2,607,166	672,643	96,488	145,905	6,634	2,744	1,843	264	400	18	25,579	6,599	947	1,431	65	3,568,725
MT	364,948	198,400	35,392	17,050	934	792	2,115	377	182	10	6,822	3,709	662	319	17	631,728
NE	826,790	243,224	37,907	47,949	1,977	966	1,098	171	217	9	11,377	3,347	522	660	27	1,176,239
NV	508,457	158,816	35,919	31,857	728	1,029	2,420	547	485	11	4,987	1,558	352	312	7	747,487
NH	778,394	179,633	37,340	47,652	2,395	532	401	83	106	5	5,693	1,314	273	349	18	1,054,188
NJ	4,393,856	333,197	99,173	230,939	6,269	1,976	2,728	812	1,891	51	50,164	3,804	1,132	2,637	72	5,128,700
NM	810,722	340,194	55,880	48,059	1,487	1,217	2,748	451	388	12	9,335	3,917	643	553	17	1,275,624
NY	7,888,883	706,595	201,741	414,530	11,971	7,510	5,114	1,460	3,000	87	124,626	11,163	3,187	6,549	189	9,386,603
NC	3,433,314	776,186	97,630	167,493	3,354	1,624	2,147	270	463	9	36,832	8,327	1,047	1,797	36	4,530,529
ND	367,504	151,125	21,314	18,430	1,024	534	814	115	99	6	3,672	1,510	213	184	10	566,554
OH	6,327,531	977,089	163,525	385,729	10,089	2,772	3,060	512	1,208	32	58,435	9,023	1,510	3,562	93	7,944,170
OK	1,826,631	708,665	71,422	110,269	3,216	1,349	2,071	209	322	9	17,153	6,655	671	1,035	30	2,749,707
OR	1,460,723	485,592	73,596	96,639	1,972	1,227	3,563	540	709	14	15,645	5,201	788	1,035	21	2,147,266
PA	5,738,342	839,185	222,629	291,096	14,646	4,521	4,146	1,100	1,438	72	46,973	6,869	1,822	2,383	120	7,175,344
RI	526,677	49,777	10,791	23,456	691	213	350	76	165	5	5,643	533	116	251	7	618,751
SC	1,744,520	356,064	39,308	78,802	1,591	1,414	1,968	217	435	9	22,024	4,495	496	995	20	2,252,358
SD	422,605	151,891	24,728	20,927	610	501	1,086	177	150	4	3,154	1,134	185	156	5	627,311
TN	2,832,039	745,649	83,803	132,925	3,612	2,996	3,953	444	705	19	24,343	6,409	720	1,143	31	3,838,790
TX	8,202,396	2,620,970	422,007	468,757	13,853	5,621	9,227	1,486	1,650	49	78,400	25,052	4,034	4,480	132	11,858,115
UT	708,784	242,922	60,015	44,228	1,893	828	1,641	405	299	13	9,252	3,171	783	577	25	1,074,836
VT	290,648	77,043	18,040	14,921	626	296	180	42	35	1	3,515	932	218	180	8	406,685
VA	3,443,624	673,684	109,970	183,971	5,212	2,267	3,280	535	896	25	35,046	6,856	1,119	1,872	53	4,468,410
WA	2,600,132	694,150	103,228	165,303	3,816	2,498	4,805	715	1,144	26	26,372	7,041	1,047	1,677	39	3,611,993
WV	746,555	249,057	55,261	36,765	961	784	782	174	115	3	10,583	3,531	783	521	14	1,105,889
WI	2,324,835	414,834	91,023	132,748	3,217	986	1,652	362	529	13	30,020	5,357	1,175	1,714	42	3,008,505
WY	213,684	127,975	32,610	12,619	706	345	1,118	285	110	6	3,600	2,156	549	213	12	395,988
Total	128,836,802	26,931,204	4,511,813	7,220,099	210,835	95,029	128,665	22,907	36,184	1,053	1,388,994	289,518	48,785	77,191	2,260	169,801,339

Table D.3. Final Private, Federal, and SCM Light-Duty Vehicle Counts by State and Type, 1987

State	Private & Commercial					Federal					State, County, and Municipal					1987 Total
	Auto	Pickup	Utility	Van	Other Trk	Auto	Pickup	Utility	Van	Other Trk	Auto	Pickup	Utility	Van	Other Trk	
AL	2,565,968	662,023	70,297	120,733	3,651	1,486	2,291	243	418	13	22,989	5,931	630	1,082	33	3,457,787
AK	183,742	102,796	31,543	17,620	845	450	1,240	380	212	10	3,734	2,089	641	358	17	345,679
AZ	1,657,441	491,607	113,328	91,317	3,968	1,988	3,877	894	720	31	17,580	5,214	1,202	969	42	2,390,177
AR	941,511	345,434	41,001	43,972	1,131	829	1,330	158	169	4	11,548	4,237	503	539	14	1,392,380
CA	14,480,559	3,083,880	539,673	892,526	25,392	11,304	18,197	3,184	5,266	150	137,366	29,255	5,119	8,467	241	19,240,580
CO	2,047,881	553,987	187,921	116,442	4,230	1,554	3,378	1,146	710	26	19,156	5,182	1,758	1,089	40	2,944,500
CT	2,146,635	245,117	63,758	99,843	3,647	788	1,569	408	639	23	19,602	2,238	582	912	33	2,585,794
DE	368,424	59,980	13,736	23,648	995	243	282	65	111	5	4,674	761	174	300	13	473,410
DC	236,022	6,839	2,796	9,328	259	2,265	776	317	1,058	29	7,565	219	90	299	8	267,870
FL	8,030,462	1,285,991	231,375	569,177	12,662	4,215	5,476	985	2,424	54	60,747	9,728	1,750	4,306	96	10,219,447
GA	3,620,261	875,592	116,367	210,431	5,772	2,217	3,137	417	754	21	76,284	18,450	2,452	4,434	122	4,936,711
HI	531,821	86,728	21,354	30,437	434	457	649	160	228	3	7,056	1,151	283	404	6	681,171
ID	554,240	250,605	45,856	30,964	1,254	590	2,238	410	277	11	5,403	2,443	447	302	12	895,051
IL	6,074,165	785,648	175,330	365,226	14,967	3,125	3,685	822	1,713	70	62,365	8,066	1,800	3,750	154	7,500,885
IN	2,617,969	578,270	80,471	183,061	5,781	1,229	1,813	252	574	18	29,380	6,490	903	2,054	65	3,508,330
IA	1,854,707	455,789	60,850	105,416	2,387	614	1,442	192	333	8	19,414	4,771	637	1,103	25	2,507,690
KS	1,435,427	446,782	62,587	92,664	3,738	709	1,401	196	291	12	15,984	4,975	697	1,032	42	2,066,536
KY	1,871,456	525,051	67,315	95,846	3,348	1,408	1,976	253	361	13	19,107	5,360	687	979	34	2,593,193
LA	1,971,263	610,267	71,455	121,604	4,363	1,444	2,194	257	437	16	25,409	7,866	921	1,567	56	2,819,119
ME	619,810	193,810	32,807	32,401	1,290	381	540	91	90	4	6,901	2,158	365	361	14	891,025
MD	2,588,891	373,300	78,732	163,127	4,694	2,288	2,457	518	1,074	31	27,430	3,955	834	1,728	50	3,249,110
MA	3,192,668	325,966	96,375	161,688	6,165	2,363	2,259	668	1,121	43	36,691	3,746	1,108	1,858	71	3,832,790
MI	5,108,277	902,068	213,134	362,271	9,789	2,322	3,169	749	1,273	34	53,193	9,393	2,219	3,772	102	6,671,766
MN	2,250,668	477,640	103,708	128,842	4,565	1,333	2,172	472	586	21	27,548	5,846	1,269	1,577	56	3,006,305
MS	1,214,260	380,973	32,459	53,246	1,760	1,184	1,692	144	237	8	15,694	4,924	420	688	23	1,707,710
MO	2,655,295	703,041	78,526	122,339	7,497	2,703	2,139	239	372	23	26,240	6,947	776	1,209	74	3,607,420
MT	353,095	189,316	35,578	19,570	1,072	780	2,272	427	235	13	6,896	3,698	695	382	21	614,050
NE	851,917	254,661	34,261	46,510	1,431	952	1,241	167	227	7	11,408	3,410	459	623	19	1,207,294
NV	539,490	171,051	32,203	35,432	859	1,014	2,717	511	563	14	5,193	1,647	310	341	8	791,351
NH	622,233	143,293	32,541	38,747	2,198	524	433	98	117	7	5,969	1,374	312	372	21	848,239
NJ	4,556,654	369,149	122,940	249,426	8,087	1,947	2,965	987	2,003	65	50,131	4,061	1,353	2,744	89	5,372,602
NM	790,376	326,082	57,840	47,184	1,594	1,199	2,979	528	431	15	9,465	3,905	693	565	19	1,242,875
NY	7,898,692	730,606	231,858	433,804	15,689	7,399	5,490	1,742	3,260	118	125,228	11,583	3,676	6,878	249	9,476,271
NC	3,477,968	811,285	115,690	186,444	4,927	1,600	2,302	328	529	14	37,386	8,721	1,244	2,004	53	4,650,495
ND	372,769	152,396	24,167	20,381	1,129	526	873	138	117	6	3,859	1,578	250	211	12	578,412
OH	6,554,828	1,047,626	178,312	434,574	11,821	2,731	3,311	564	1,373	37	58,562	9,360	1,593	3,883	106	8,308,679
OK	1,812,153	718,054	80,414	116,332	3,706	1,329	2,243	251	363	12	16,877	6,687	749	1,083	35	2,760,287
OR	1,444,091	477,778	81,467	100,008	2,240	1,209	3,828	653	801	18	15,941	5,274	899	1,104	25	2,135,336
PA	5,780,995	877,586	243,784	327,650	16,838	4,454	4,443	1,234	1,659	85	47,412	7,197	1,999	2,687	138	7,318,163
RI	537,152	55,598	13,153	25,213	865	210	383	91	174	6	5,758	596	141	270	9	639,620
SC	1,777,741	371,185	47,434	88,073	2,210	1,393	2,106	269	500	13	22,380	4,673	597	1,109	28	2,319,709
SD	424,972	154,153	27,464	22,561	1,001	494	1,169	208	171	8	3,127	1,134	202	166	7	636,837
TN	2,885,695	770,520	96,021	147,845	4,348	2,951	4,255	530	816	24	24,764	6,612	824	1,269	37	3,946,512
TX	8,090,358	2,570,544	469,193	488,206	17,387	5,538	9,884	1,804	1,877	67	79,594	25,289	4,616	4,803	171	11,769,333
UT	713,810	234,762	64,115	48,474	2,358	816	1,739	475	359	17	9,337	3,071	839	634	31	1,080,836
VT	301,586	85,013	20,789	17,029	873	292	195	48	39	2	3,509	989	242	198	10	430,813
VA	3,446,355	676,644	126,877	191,252	6,138	2,234	3,516	659	994	32	35,578	6,985	1,310	1,974	63	4,500,613
WA	2,663,951	691,430	119,673	171,515	4,316	2,461	5,148	891	1,277	32	27,019	7,013	1,214	1,740	44	3,697,722
WV	757,362	255,547	58,378	39,358	1,351	772	850	194	131	4	10,423	3,517	803	542	19	1,129,250
WI	2,321,072	438,510	70,788	118,377	3,922	972	1,949	315	526	17	30,019	5,671	916	1,531	51	2,994,634
WY	237,037	138,648	36,592	14,786	972	340	1,211	320	129	8	3,414	1,997	527	213	14	436,207
Total	130,032,176	27,520,622	5,054,288	7,672,919	251,912	93,625	138,883	27,056	40,119	1,320	1,408,305	297,439	54,730	82,464	2,719	172,678,576

Table D.4. Final Private, Federal, and SCM Light-Duty Vehicle Counts by State and Type, 1988

State	Private & Commercial					Federal					State, County, and Municipal					1988 Total
	Auto	Pickup	Utility	Van	Other Trk	Auto	Pickup	Utility	Van	Other Trk	Auto	Pickup	Utility	Van	Other Trk	
AL	2,762,866	738,197	96,727	149,819	4,593	1,536	2,336	306	474	15	23,387	6,249	819	1,268	39	3,788,628
AK	185,833	101,268	34,734	18,944	885	465	1,264	434	236	11	3,772	2,056	705	385	18	351,008
AZ	1,848,485	551,515	135,748	103,252	3,093	2,055	4,051	997	758	23	17,888	5,337	1,314	999	30	2,675,545
AR	916,627	335,106	46,628	48,079	1,099	856	1,364	190	196	4	11,760	4,299	598	617	14	1,367,437
CA	15,073,500	3,228,902	676,318	996,194	30,774	11,684	18,518	3,879	5,713	176	139,806	29,948	6,273	9,240	285	20,231,210
CO	1,966,805	504,734	209,072	116,796	3,461	1,607	3,360	1,392	777	23	19,483	5,000	2,071	1,157	34	2,835,771
CT	2,153,177	253,419	80,380	106,998	4,418	814	1,586	503	669	28	19,852	2,337	741	987	41	2,625,949
DE	377,171	63,979	18,120	26,607	1,179	251	285	81	118	5	4,670	792	224	329	15	493,826
DC	229,231	7,386	4,333	9,770	314	2,342	779	457	1,031	33	7,470	241	141	318	10	263,858
FL	8,191,304	1,318,097	249,080	611,819	13,526	4,356	5,673	1,072	2,633	58	63,869	10,277	1,942	4,770	105	10,478,583
GA	3,690,846	914,930	147,125	237,992	7,331	2,292	3,198	514	832	26	46,210	11,455	1,842	2,980	92	5,067,664
HI	536,446	89,947	24,434	33,650	512	472	665	181	249	4	7,219	1,210	329	453	7	695,778
ID	553,835	239,636	49,789	33,264	1,266	610	2,292	476	318	12	5,640	2,440	507	339	13	890,438
IL	6,050,033	816,503	201,899	411,591	16,620	3,229	3,747	927	1,889	76	62,754	8,469	2,094	4,269	172	7,584,272
IN	2,910,051	654,439	101,480	224,092	7,128	1,270	1,860	288	637	20	29,613	6,660	1,033	2,280	73	3,940,923
IA	1,719,917	443,124	65,692	113,415	2,602	635	1,479	219	378	9	19,548	5,036	747	1,289	30	2,374,120
KS	1,436,348	447,550	72,465	102,780	4,195	733	1,432	232	329	13	16,198	5,047	817	1,159	47	2,089,344
KY	1,898,145	543,929	79,288	108,280	3,546	1,456	2,033	296	405	13	19,374	5,552	809	1,105	36	2,664,266
LA	1,995,594	609,523	81,491	131,280	4,544	1,493	2,260	302	487	17	25,240	7,709	1,031	1,660	57	2,862,688
ME	620,160	197,375	38,817	37,167	1,755	394	550	108	104	5	7,044	2,242	441	422	20	906,603
MD	2,687,633	390,181	103,749	178,095	5,602	2,364	2,480	659	1,132	36	27,670	4,017	1,068	1,834	58	3,406,578
MA	3,105,850	330,901	103,896	166,559	6,627	2,442	2,350	738	1,183	47	37,195	3,963	1,244	1,995	79	3,765,068
MI	5,155,733	945,072	243,579	422,765	10,901	2,400	3,213	828	1,437	37	53,306	9,771	2,518	4,371	113	6,856,044
MN	2,226,959	501,421	123,827	148,176	5,011	1,378	2,210	546	653	22	27,447	6,180	1,526	1,826	62	3,047,244
MS	1,208,405	394,971	42,015	61,224	1,977	1,223	1,734	184	269	9	15,844	5,179	551	803	26	1,734,413
MO	2,659,590	668,832	118,757	169,014	7,789	2,794	2,030	360	513	24	26,575	6,683	1,187	1,689	78	3,665,915
MT	386,456	202,013	41,508	23,016	1,134	807	2,348	482	268	13	7,096	3,709	762	423	21	670,056
NE	863,474	253,695	36,898	50,606	1,527	983	1,283	187	256	8	11,653	3,424	498	683	21	1,225,195
NV	540,837	171,890	23,085	37,869	841	1,048	2,954	397	651	14	5,498	1,747	235	385	9	787,460
NH	648,733	154,737	41,623	43,671	2,541	542	441	119	124	7	6,178	1,474	396	416	24	901,026
NJ	4,671,098	403,205	167,046	275,560	10,392	2,013	2,993	1,240	2,045	77	50,148	4,329	1,793	2,958	112	5,595,009
NM	768,971	319,621	64,946	50,891	1,747	1,240	3,050	620	486	17	9,625	4,001	813	637	22	1,226,685
NY	7,994,047	765,079	297,729	477,270	17,130	7,648	5,503	2,141	3,433	123	126,244	12,082	4,702	7,537	271	9,720,939
NC	3,556,856	837,654	145,243	208,099	5,111	1,653	2,346	407	583	14	38,336	9,028	1,565	2,243	55	4,809,195
ND	373,495	152,217	26,936	22,496	1,155	544	899	159	133	7	3,425	1,396	247	206	11	583,326
OH	6,551,556	1,063,628	200,092	476,654	12,978	2,822	3,384	637	1,517	41	58,595	9,513	1,790	4,263	116	8,387,585
OK	1,577,693	626,379	83,511	110,214	3,865	1,373	2,302	307	405	14	17,091	6,786	905	1,194	42	2,432,080
OR	1,486,827	481,681	94,893	109,674	2,570	1,249	3,913	771	891	21	16,278	5,273	1,039	1,201	28	2,206,308
PA	5,786,510	906,979	285,410	362,446	18,698	4,604	4,515	1,421	1,804	93	47,507	7,446	2,343	2,976	154	7,432,905
RI	542,848	59,436	16,777	27,451	1,522	217	390	110	180	10	5,952	652	184	301	17	656,047
SC	1,785,510	382,729	61,739	98,802	2,733	1,439	2,137	345	552	15	22,339	4,788	772	1,236	34	2,365,171
SD	428,512	156,497	31,689	25,446	735	510	1,199	243	195	6	3,187	1,164	236	189	5	649,813
TN	3,002,680	803,524	119,227	167,142	5,020	3,050	4,358	647	906	27	25,101	6,717	997	1,397	42	4,140,835
TX	8,094,800	2,554,296	541,425	522,083	16,626	5,724	10,114	2,144	2,067	66	81,205	25,624	5,431	5,237	167	11,867,008
UT	739,085	236,550	73,441	56,160	2,244	843	1,755	545	417	17	9,439	3,021	938	717	29	1,125,201
VT	302,352	88,963	24,120	18,663	960	302	200	54	42	2	3,602	1,060	287	222	11	440,841
VA	3,422,892	688,195	158,455	208,518	6,893	2,309	3,558	819	1,078	36	36,159	7,270	1,674	2,203	73	4,540,132
WA	2,703,201	676,331	139,244	182,170	4,831	2,543	5,233	1,077	1,409	37	27,971	6,998	1,441	1,885	50	3,754,423
WV	810,998	277,162	68,005	45,586	1,561	798	880	216	145	5	10,374	3,546	870	583	20	1,220,748
WI	2,903,392	519,508	134,791	191,563	5,390	1,004	1,808	469	667	19	29,726	5,319	1,380	1,961	55	3,797,053
WY	240,151	135,872	39,681	16,446	996	352	1,240	362	150	9	3,688	2,086	609	253	15	441,909
Total	132,343,515	28,208,776	6,066,957	8,576,114	279,949	96,768	141,550	32,087	43,824	1,445	1,395,249	296,601	64,480	89,851	2,956	177,640,121

Table D.5. Final Private, Federal, and SCM Light-Duty Vehicle Counts by State and Type, 1989

State	Private & Commercial					Federal					State, County, and Municipal					1989 Total
	Auto	Pickup	Utility	Van	Other Trk	Auto	Pickup	Utility	Van	Other Trk	Auto	Pickup	Utility	Van	Other Trk	
AL	2,572,006	681,013	94,334	149,031	6,248	1,565	2,475	343	542	23	24,153	6,395	886	1,399	59	3,540,470
AK	187,567	101,859	33,777	20,142	1,903	473	1,358	450	268	25	3,906	2,121	703	419	40	355,012
AZ	1,866,441	561,514	139,481	131,654	8,699	2,093	4,203	1,044	986	65	18,328	5,514	1,370	1,293	85	2,742,769
AR	935,856	351,989	49,182	52,281	1,215	872	1,467	205	218	5	11,961	4,499	629	668	16	1,411,062
CA	15,182,947	3,288,755	717,419	1,051,445	63,963	11,901	19,626	4,281	6,274	382	143,759	31,139	6,793	9,956	606	20,539,244
CO	2,126,917	544,464	227,665	133,430	6,918	1,636	3,579	1,497	877	45	19,771	5,061	2,116	1,240	64	3,075,283
CT	2,123,862	268,267	90,215	113,261	5,648	829	1,691	569	714	36	19,714	2,490	837	1,051	52	2,629,236
DE	378,897	68,135	20,412	28,925	1,447	255	303	91	128	6	4,532	815	244	346	17	504,552
DC	223,282	7,752	4,923	9,613	387	2,385	850	540	1,054	42	7,306	254	161	315	13	258,877
FL	8,345,955	1,325,911	272,975	640,514	26,413	4,437	5,966	1,228	2,882	119	65,782	10,451	2,152	5,048	208	10,710,041
GA	3,703,282	943,410	152,418	261,564	8,616	2,334	3,409	551	945	31	84,982	21,649	3,498	6,002	198	5,192,891
HI	548,578	107,362	29,103	31,604	386	481	756	205	223	3	7,244	1,418	384	417	5	728,169
ID	612,646	266,053	55,912	39,072	3,852	621	2,441	513	359	35	5,736	2,491	523	366	36	990,656
IL	6,015,845	888,956	220,090	470,249	19,540	3,290	3,989	988	2,110	88	61,837	9,138	2,262	4,834	201	7,703,415
IN	3,021,664	697,585	105,119	250,936	11,074	1,294	1,986	299	714	32	30,429	7,025	1,059	2,527	112	4,131,853
IA	1,751,081	447,295	66,373	125,558	7,823	647	1,557	231	437	27	20,334	5,194	771	1,458	91	2,428,879
KS	1,287,296	399,242	66,202	99,863	3,952	746	1,520	252	380	15	16,507	5,120	849	1,281	51	1,883,275
KY	1,902,251	570,022	81,056	119,505	4,920	1,483	2,181	310	457	19	19,454	5,830	829	1,222	50	2,709,589
LA	1,975,440	636,563	87,029	144,663	5,281	1,520	2,414	330	548	20	24,981	8,050	1,101	1,829	67	2,889,837
ME	609,356	202,043	40,421	39,009	2,436	401	589	118	114	7	7,116	2,360	472	456	28	904,926
MD	2,689,141	415,405	120,993	195,725	7,672	2,408	2,613	761	1,231	48	28,159	4,350	1,267	2,050	80	3,471,904
MA	3,084,453	340,569	102,351	173,351	7,140	2,488	2,549	766	1,297	53	36,838	4,067	1,222	2,070	85	3,759,300
MI	5,069,700	989,379	243,728	458,906	17,297	2,445	3,449	850	1,600	60	52,391	10,224	2,519	4,742	179	6,857,468
MN	2,242,427	527,602	130,857	168,198	10,054	1,403	2,338	580	745	45	27,677	6,512	1,615	2,076	124	3,122,253
MS	1,265,454	424,435	47,039	70,229	3,072	1,246	1,849	205	306	13	15,985	5,362	594	887	39	1,836,716
MO	2,660,115	700,165	123,352	186,938	9,076	2,846	2,172	383	580	28	26,813	7,058	1,243	1,884	91	3,722,745
MT	407,028	209,710	41,725	24,839	1,243	822	2,540	505	301	15	7,274	3,748	746	444	22	700,962
NE	885,164	256,668	37,349	55,649	2,428	1,002	1,365	199	296	13	11,829	3,430	499	744	32	1,256,665
NV	539,732	157,424	40,732	36,182	2,769	1,067	2,881	745	662	51	5,786	1,688	437	388	30	790,573
NH	645,970	162,469	44,765	47,040	3,078	552	471	130	136	9	6,298	1,584	436	459	30	913,427
NJ	4,544,309	413,120	181,981	287,678	12,526	2,050	3,168	1,396	2,206	96	50,306	4,573	2,015	3,185	139	5,508,748
NM	778,444	327,809	67,421	55,503	2,967	1,263	3,257	670	552	29	9,741	4,102	844	695	37	1,253,333
NY	8,034,576	830,201	331,302	515,437	21,482	7,790	5,915	2,360	3,672	153	125,950	13,014	5,194	8,080	337	9,905,464
NC	3,569,885	875,132	160,751	229,696	7,076	1,684	2,489	457	653	20	39,298	9,634	1,770	2,529	78	4,901,151
ND	362,758	143,814	25,895	23,309	1,921	554	955	172	155	13	3,424	1,357	244	220	18	564,809
OH	7,175,175	1,209,334	220,101	563,898	22,730	2,875	3,616	658	1,686	68	58,942	9,934	1,808	4,632	187	9,275,646
OK	1,587,628	624,291	87,827	116,632	6,705	1,399	2,445	344	457	26	17,715	6,966	980	1,301	75	2,454,791
OR	1,523,527	491,709	98,789	120,117	9,265	1,273	4,129	830	1,009	78	16,473	5,317	1,068	1,299	100	2,274,982
PA	5,823,287	955,413	297,357	395,152	20,135	4,689	4,848	1,509	2,005	102	47,833	7,848	2,442	3,246	165	7,566,031
RI	540,680	58,897	18,782	27,570	1,742	221	410	131	192	12	5,986	652	208	305	19	655,807
SC	1,800,489	400,435	67,594	106,984	3,703	1,466	2,279	385	609	21	23,121	5,142	868	1,374	48	2,414,518
SD	439,454	154,794	31,754	27,866	2,588	520	1,265	260	228	21	3,209	1,130	232	203	19	663,543
TN	3,039,895	832,211	127,286	182,161	6,936	3,107	4,649	711	1,018	39	26,520	7,260	1,110	1,589	61	4,234,554
TX	8,184,185	2,608,343	573,890	564,405	23,947	5,830	10,756	2,366	2,327	99	82,788	26,385	5,805	5,709	242	12,097,080
UT	759,468	232,306	71,914	60,112	4,619	859	1,860	576	481	37	9,762	2,986	924	773	59	1,146,738
VT	304,199	94,175	24,869	20,113	1,296	307	217	57	46	3	3,640	1,127	298	241	16	450,601
VA	3,517,807	731,930	176,697	228,953	8,643	2,352	3,788	915	1,185	45	37,021	7,703	1,860	2,409	91	4,721,398
WA	2,841,455	708,385	149,930	202,731	16,855	2,591	5,508	1,166	1,576	131	28,716	7,159	1,515	2,049	170	3,969,937
WV	761,353	263,448	59,681	44,886	2,290	813	957	217	163	8	10,027	3,470	786	591	30	1,148,719
WI	2,513,048	480,804	122,282	187,365	7,718	1,023	1,928	490	751	31	29,831	5,707	1,452	2,224	92	3,354,746
WY	241,658	134,752	38,069	16,725	1,639	358	1,341	379	166	16	3,743	2,087	590	259	25	441,809
Total	133,203,633	29,113,316	6,421,167	9,306,670	441,330	98,567	150,369	35,216	48,525	2,410	1,450,931	318,588	70,229	100,785	4,719	180,766,453

Table D.6. Final Private, Federal, and SCM Light-Duty Vehicle Counts by State and Type, 1990

State	Private & Commercial					Federal					State, County, and Municipal					1990 Total
	Auto	Pickup	Utility	Van	Other Trk	Auto	Pickup	Utility	Van	Other Trk	Auto	Pickup	Utility	Van	Other Trk	
AL	2,603,095	724,704	106,119	177,445	7,168	1,653	2,563	375	628	25	24,395	6,792	994	1,663	67	3,657,685
AK	243,417	131,990	45,361	32,685	2,329	500	1,387	477	343	24	3,969	2,152	740	533	38	465,945
AZ	1,876,800	568,347	144,003	158,369	8,842	2,212	4,321	1,095	1,204	67	19,043	5,767	1,461	1,607	90	2,793,229
AR	929,017	363,246	49,609	62,864	1,520	922	1,531	209	265	6	12,144	4,748	649	822	20	1,427,572
CA	15,203,580	3,341,530	800,054	1,173,774	67,278	12,576	20,146	4,824	7,077	406	147,867	32,499	7,781	11,416	654	20,831,462
CO	2,093,003	537,640	228,415	174,348	7,316	1,729	3,613	1,535	1,172	49	19,822	5,092	2,163	1,651	69	3,077,619
CT	2,079,543	263,575	97,505	125,713	5,622	876	1,711	633	816	36	19,724	2,500	925	1,192	53	2,600,425
DE	374,485	69,056	23,346	33,272	1,542	270	304	103	147	7	4,615	851	288	410	19	508,715
DC	223,772	7,728	6,018	10,469	430	2,520	828	645	1,121	46	7,297	252	196	341	14	261,679
FL	8,039,698	1,314,484	278,060	686,938	29,239	4,689	6,164	1,304	3,221	137	68,677	11,229	2,375	5,868	250	10,452,332
GA	3,817,402	986,762	163,111	302,700	11,351	2,467	3,533	584	1,084	41	45,232	11,692	1,933	3,587	134	5,351,613
HI	567,289	113,012	30,474	39,613	447	508	775	209	272	3	7,543	1,503	405	527	6	762,587
ID	612,309	269,648	58,072	48,386	3,609	657	2,525	544	453	34	5,902	2,599	560	466	35	1,005,798
IL	5,796,145	900,097	231,078	532,582	21,197	3,476	4,069	1,045	2,408	96	62,405	9,691	2,488	5,734	228	7,572,738
IN	3,007,534	715,381	103,958	288,171	11,490	1,367	2,058	299	829	33	30,918	7,354	1,069	2,962	118	4,173,541
IA	1,769,802	452,804	68,585	147,272	7,659	684	1,602	243	521	27	20,660	5,286	801	1,719	89	2,477,753
KS	1,300,883	392,589	66,025	115,086	5,179	789	1,560	262	457	21	16,960	5,118	861	1,500	68	1,907,358
KY	1,918,875	589,735	80,471	144,035	5,391	1,567	2,267	309	554	21	19,684	6,050	825	1,478	55	2,771,318
LA	1,952,414	650,549	90,598	166,900	5,276	1,607	2,505	349	643	20	25,319	8,436	1,175	2,164	68	2,908,023
ME	629,404	206,540	43,628	48,493	2,547	424	603	127	142	7	7,206	2,365	500	555	29	942,571
MD	2,710,359	423,680	140,461	222,921	8,627	2,545	2,631	872	1,384	54	28,230	4,413	1,463	2,322	90	3,550,050
MA	2,985,662	317,913	134,191	183,845	6,668	2,629	2,451	1,034	1,417	51	35,665	3,798	1,603	2,196	80	3,679,203
MI	5,061,805	1,007,894	255,523	519,251	20,302	2,584	3,537	897	1,822	71	52,478	10,449	2,649	5,383	210	6,944,854
MN	2,364,322	555,306	145,757	205,137	10,590	1,483	2,385	626	881	45	28,087	6,597	1,732	2,437	126	3,325,509
MS	1,251,952	432,596	48,581	81,732	3,550	1,317	1,924	216	364	16	16,011	5,533	621	1,045	45	1,845,504
MO	2,661,262	718,510	126,685	221,082	9,457	3,008	2,243	395	690	30	27,177	7,337	1,294	2,258	97	3,781,524
MT	427,726	219,170	43,222	32,024	1,325	868	2,645	522	386	16	6,837	3,504	691	512	21	739,468
NE	891,690	257,943	39,221	66,432	2,344	1,059	1,402	213	361	13	12,031	3,480	529	896	32	1,277,646
NV	545,820	162,337	46,601	43,819	2,708	1,128	2,928	841	790	49	6,063	1,803	518	487	30	815,920
NH	642,071	164,749	49,649	55,208	3,290	583	479	144	160	10	6,301	1,617	487	542	32	925,323
NJ	4,500,297	410,116	205,885	321,817	14,403	2,166	3,140	1,576	2,464	110	50,776	4,627	2,323	3,631	163	5,523,495
NM	778,240	323,376	68,162	65,658	3,234	1,334	3,362	709	683	34	10,050	4,176	880	848	42	1,260,787
NY	8,068,262	842,509	367,831	585,947	23,296	8,232	5,949	2,597	4,138	165	126,410	13,200	5,763	9,180	365	10,063,845
NC	3,532,315	897,554	175,311	268,285	8,405	1,780	2,556	499	764	24	39,616	10,066	1,966	3,009	94	4,942,244
ND	358,691	138,161	25,872	27,746	1,821	585	981	184	197	13	5,053	1,946	364	391	26	562,031
OH	6,254,050	1,078,334	193,441	562,633	20,782	3,038	3,720	667	1,941	72	59,546	10,267	1,842	5,357	198	8,195,887
OK	1,617,747	644,400	92,152	136,864	6,834	1,478	2,543	364	540	27	17,968	7,157	1,024	1,520	76	2,530,693
OR	1,539,994	504,775	109,941	140,145	9,109	1,345	4,241	924	1,178	77	16,748	5,490	1,196	1,524	99	2,336,786
PA	5,805,326	958,658	307,744	459,553	21,481	4,956	4,931	1,583	2,364	110	47,683	7,874	2,528	3,775	176	7,628,742
RI	539,982	57,134	20,157	30,635	1,821	234	412	145	221	13	6,098	645	228	346	21	658,090
SC	1,793,902	425,542	77,240	126,902	4,528	1,549	2,346	426	700	25	23,292	5,525	1,003	1,648	59	2,464,686
SD	440,252	151,279	31,509	33,282	2,351	549	1,305	272	287	20	3,204	1,101	229	242	17	665,900
TN	3,067,464	878,364	133,959	221,936	8,831	3,283	4,814	734	1,216	48	26,464	7,578	1,156	1,915	76	4,357,838
TX	8,244,844	2,631,021	599,910	664,221	30,324	6,161	11,065	2,523	2,794	128	86,086	27,471	6,264	6,935	317	12,320,064
UT	767,014	233,188	76,080	75,302	4,288	908	1,881	614	607	35	9,984	3,035	990	980	56	1,174,962
VT	299,918	93,701	25,709	24,117	1,307	325	222	61	57	3	3,679	1,149	315	296	16	450,877
VA	3,522,616	741,970	195,774	264,505	9,540	2,485	3,857	1,018	1,375	50	37,831	7,968	2,103	2,841	102	4,794,034
WA	2,918,202	735,585	172,212	240,882	15,941	2,738	5,621	1,316	1,841	122	29,707	7,488	1,753	2,452	162	4,136,022
WV	756,847	261,192	56,572	55,349	2,312	859	994	215	211	9	10,040	3,465	750	734	31	1,149,579
WI	2,589,992	529,901	138,017	233,008	8,921	1,081	1,979	516	870	33	29,726	6,082	1,584	2,674	102	3,544,487
WY	258,721	142,989	39,605	23,383	1,716	379	1,391	385	227	17	3,779	2,089	579	342	25	475,627
Total	132,235,807	29,539,263	6,857,463	10,662,736	475,538	104,162	154,001	38,258	56,286	2,594	1,432,005	318,907	74,614	114,914	5,091	182,071,639

Table D.7. Final Private, Federal, and SCM Light-Duty Vehicle Counts by State and Type, 1991

State	Private & Commercial					Federal					State, County, and Municipal					1991 Total
	Auto	Pickup	Utility	Van	Other Trk	Auto	Pickup	Utility	Van	Other Trk	Auto	Pickup	Utility	Van	Other Trk	
AL	2,538,042	728,820	128,553	171,719	7,377	1,588	2,660	469	627	27	24,739	7,104	1,253	1,674	72	3,614,723
AK	237,545	129,738	51,473	29,514	2,166	480	1,432	568	326	24	3,948	2,156	855	491	36	460,753
AZ	1,893,131	563,038	164,828	150,245	8,483	2,124	4,473	1,310	1,194	67	20,152	5,994	1,755	1,599	90	2,818,483
AR	895,044	405,886	67,480	66,686	2,321	885	1,586	264	261	9	11,787	5,345	889	878	31	1,459,350
CA	15,293,756	3,364,987	938,041	1,193,460	65,427	12,077	20,681	5,765	7,335	402	149,290	32,847	9,157	11,650	639	21,105,513
CO	2,002,945	509,724	262,869	152,003	6,884	1,661	3,671	1,893	1,095	50	20,197	5,140	2,651	1,533	69	2,972,386
CT	2,042,453	256,134	113,774	120,593	5,265	842	1,739	772	819	36	19,550	2,452	1,089	1,154	50	2,566,722
DE	374,364	70,748	28,351	33,380	1,556	259	312	125	147	7	4,836	914	366	431	20	515,816
DC	208,648	7,558	6,687	10,067	443	2,420	849	751	1,131	50	7,110	258	228	343	15	246,557
FL	7,197,259	1,179,082	355,548	624,805	26,828	4,503	6,150	1,854	3,259	140	69,240	11,343	3,421	6,011	258	9,489,700
GA	3,964,896	1,017,826	193,499	308,953	13,179	2,369	3,665	697	1,112	47	46,981	12,060	2,293	3,661	156	5,571,395
HI	559,111	117,146	37,473	48,965	987	488	760	243	318	6	7,657	1,604	513	671	14	775,955
ID	604,986	262,972	66,312	45,300	3,187	631	2,607	657	449	32	6,138	2,668	673	460	32	997,104
IL	5,997,893	944,054	288,480	557,436	23,760	3,338	4,176	1,276	2,466	105	62,819	9,888	3,021	5,838	249	7,904,799
IN	3,013,317	728,245	128,183	290,174	11,820	1,313	2,131	375	849	35	30,974	7,486	1,318	2,983	122	4,219,324
IA	1,783,855	456,267	83,381	151,401	7,325	656	1,646	301	546	26	21,304	5,449	996	1,808	87	2,515,048
KS	1,202,179	357,811	72,203	105,282	4,608	757	1,606	324	473	21	17,343	5,162	1,042	1,519	66	1,770,396
KY	1,947,601	596,896	97,885	139,937	5,478	1,505	2,358	387	553	22	20,379	6,246	1,024	1,464	57	2,821,791
LA	1,979,807	656,544	109,887	161,219	5,563	1,543	2,606	436	640	22	25,854	8,574	1,435	2,105	73	2,956,309
ME	628,456	205,842	50,542	45,885	2,699	407	625	153	139	8	7,289	2,387	586	532	31	945,583
MD	2,698,391	431,448	166,401	225,905	8,923	2,444	2,697	1,040	1,412	56	27,709	4,430	1,709	2,320	92	3,574,977
MA	2,917,051	313,182	152,158	177,265	6,767	2,525	2,516	1,223	1,424	54	34,500	3,704	1,800	2,097	80	3,616,344
MI	5,037,988	1,021,320	300,901	523,884	22,897	2,481	3,642	1,073	1,868	82	52,331	10,609	3,126	5,442	238	6,987,880
MN	2,193,856	509,311	152,421	192,577	9,505	1,424	2,445	732	924	46	28,402	6,594	1,973	2,493	123	3,102,824
MS	1,240,473	441,500	59,874	80,924	3,431	1,265	2,001	271	367	16	15,890	5,655	767	1,037	44	1,853,514
MO	2,666,984	728,008	153,145	222,835	9,590	2,888	2,312	486	708	30	27,213	7,428	1,563	2,274	98	3,825,563
MT	426,412	198,570	48,471	30,541	2,483	834	2,666	651	410	33	7,123	3,317	810	510	41	722,871
NE	905,448	255,545	44,543	69,059	2,296	1,017	1,441	251	389	13	12,286	3,467	604	937	31	1,297,328
NV	561,036	164,722	57,115	42,573	2,599	1,083	2,994	1,038	774	47	6,523	1,915	664	495	30	843,608
NH	613,561	155,604	52,890	49,702	3,331	560	497	169	159	11	6,352	1,611	548	515	34	885,542
NJ	4,354,987	396,293	239,995	311,537	14,668	2,080	3,162	1,915	2,486	117	50,249	4,572	2,769	3,595	169	5,388,594
NM	785,542	325,818	81,296	61,874	3,440	1,281	3,478	868	660	37	10,229	4,243	1,059	806	45	1,280,674
NY	7,691,853	799,190	400,644	553,870	22,961	7,905	6,088	3,052	4,219	175	124,201	12,905	6,469	8,943	371	9,642,847
NC	3,545,758	896,923	210,154	261,579	8,819	1,709	2,636	618	769	26	40,341	10,205	2,391	2,976	100	4,985,002
ND	361,172	133,016	28,591	27,664	1,744	562	1,008	217	210	13	3,407	1,255	270	261	16	559,406
OH	6,402,183	1,130,255	237,297	582,511	23,389	2,917	3,861	811	1,990	80	59,821	10,561	2,217	5,443	219	8,463,555
OK	1,626,115	642,808	109,407	130,083	6,903	1,419	2,645	450	535	28	18,274	7,224	1,229	1,462	78	2,548,661
OR	1,572,436	507,614	129,225	142,364	9,040	1,292	4,354	1,108	1,221	78	17,031	5,498	1,400	1,542	98	2,394,299
PA	5,800,238	974,016	362,941	455,675	21,543	4,759	5,083	1,894	2,378	112	47,698	8,010	2,985	3,747	177	7,691,255
RI	499,651	55,198	22,684	27,558	1,709	224	430	177	214	13	6,166	681	280	340	21	615,346
SC	1,744,717	417,547	91,490	123,514	4,853	1,488	2,413	529	714	28	23,604	5,649	1,238	1,671	66	2,419,521
SD	435,194	147,231	35,228	32,868	2,054	527	1,344	322	300	19	4,411	1,492	357	333	21	661,702
TN	3,120,264	893,032	166,230	216,114	9,110	3,153	4,989	929	1,207	51	26,654	7,628	1,420	1,846	78	4,452,704
TX	8,110,124	2,606,007	693,147	621,226	31,285	5,917	11,468	3,050	2,734	138	87,841	28,226	7,507	6,728	339	12,215,736
UT	783,995	231,076	87,903	71,938	3,994	872	1,933	735	602	33	10,416	3,070	1,168	956	53	1,198,744
VT	286,030	90,183	28,063	21,787	1,210	312	231	72	56	3	3,726	1,175	366	284	16	433,513
VA	3,560,364	752,395	231,306	262,236	10,448	2,387	3,973	1,222	1,385	55	37,786	7,985	2,455	2,783	111	4,876,891
WA	3,004,114	756,481	209,842	248,487	15,375	2,629	5,764	1,599	1,893	117	30,749	7,743	2,148	2,543	157	4,289,644
WV	860,049	183,108	54,688	79,906	3,158	825	859	257	375	15	10,995	2,341	699	1,022	40	1,198,336
WI	1,904,707	1,039,925	368,468	155,397	11,319	1,038	2,364	837	353	26	22,298	12,174	4,314	1,819	133	3,525,172
WY	208,412	148,582	48,435	23,322	1,853	364	1,423	464	223	18	3,343	2,384	777	374	30	440,005
Total	130,284,39	29,905,22	8,270,401	10,433,80	486,051	100,025	158,449	46,679	56,697	2,705	1,435,15	328,827	91,643	114,397	5,316	181,719,765

Table D.8. Final Private, Federal, and SCM Light-Duty Vehicle Counts by State and Type, 1992

State	Private & Commercial					Federal					State, County, and Municipal					1992 Total
	Auto	Pickup	Utility	Van	Other Trk	Auto	Pickup	Utility	Van	Other Trk	Auto	Pickup	Utility	Van	Other Trk	
AL	2,082,830	749,128	147,513	182,302	7,751	1,785	2,868	565	698	30	23,379	8,409	1,656	2,046	87	3,211,046
AK	222,454	144,217	60,366	35,764	2,597	540	1,535	642	381	28	3,648	2,365	990	587	43	476,155
AZ	1,714,943	626,546	198,998	182,303	9,472	2,389	4,772	1,516	1,388	72	18,984	6,936	2,203	2,018	105	2,772,643
AR	838,844	456,692	81,227	78,808	2,792	996	1,718	306	296	11	11,173	6,083	1,082	1,050	37	1,481,113
CA	14,390,789	3,811,620	1,158,227	1,385,79	62,984	13,580	22,328	6,785	8,118	369	141,291	37,423	11,372	13,606	618	21,064,901
CO	1,735,077	564,605	323,905	178,560	7,790	1,867	3,876	2,224	1,226	53	18,752	6,102	3,501	1,930	84	2,849,552
CT	1,972,271	273,302	131,027	135,863	6,175	946	1,852	888	921	42	18,917	2,621	1,257	1,303	59	2,547,445
DE	373,834	74,513	31,533	36,857	1,775	291	335	142	166	8	2,568	512	217	253	12	523,015
DC	207,706	9,490	14,842	10,207	481	2,722	829	1,296	891	42	6,749	308	482	332	16	256,393
FL	7,121,994	1,310,749	444,248	736,010	33,409	5,063	6,512	2,207	3,657	166	67,537	12,430	4,213	6,980	317	9,755,491
GA	3,815,680	1,189,591	277,479	378,589	15,566	2,664	3,882	905	1,235	51	45,210	14,095	3,288	4,486	184	5,752,904
HI	521,267	130,400	44,779	55,060	1,138	549	822	282	347	7	7,489	1,873	643	791	16	765,465
ID	506,066	309,754	83,646	56,842	3,655	709	2,811	759	516	33	5,478	3,353	906	615	40	975,183
IL	5,828,853	848,078	332,601	598,535	25,612	3,754	4,147	1,626	2,927	125	62,756	9,131	3,581	6,444	276	7,728,444
IN	2,903,575	842,075	157,999	349,242	14,588	1,476	2,302	432	955	40	29,851	8,657	1,624	3,590	150	4,316,557
IA	1,662,732	543,766	109,314	192,784	8,608	738	1,764	355	625	28	19,427	6,353	1,277	2,252	101	2,550,124
KS	1,163,650	402,043	83,922	122,368	6,135	852	1,744	364	531	27	16,953	5,857	1,223	1,783	89	1,807,542
KY	1,836,770	674,256	116,048	169,852	6,764	1,692	2,546	438	641	26	19,620	7,202	1,240	1,814	72	2,838,981
LA	1,900,215	737,112	129,401	182,082	7,902	1,735	2,843	499	702	30	25,003	9,699	1,703	2,396	104	3,001,426
ME	603,396	217,585	56,990	51,345	2,925	458	674	176	159	9	7,049	2,542	666	600	34	944,607
MD	2,672,152	463,842	191,141	252,264	10,410	2,748	2,894	1,193	1,574	65	26,900	4,669	1,924	2,540	105	3,634,422
MA	2,803,211	342,682	203,260	205,588	9,663	2,839	2,584	1,533	1,550	73	32,553	3,980	2,360	2,387	112	3,614,375
MI	4,914,812	1,107,263	341,272	597,300	29,345	2,790	3,911	1,206	2,110	104	50,718	11,426	3,522	6,164	303	7,072,244
MN	2,204,880	603,110	192,701	246,805	12,196	1,601	2,608	833	1,067	53	27,121	7,418	2,370	3,036	150	3,305,948
MS	1,183,517	526,996	76,405	99,481	4,248	1,422	2,176	315	411	18	14,926	6,646	964	1,255	54	1,918,833
MO	2,503,828	845,164	188,958	281,328	11,613	3,248	2,478	554	825	34	25,340	8,554	1,912	2,847	118	3,876,801
MT	433,944	283,853	70,235	45,756	3,454	937	2,911	720	469	35	7,571	4,952	1,225	798	60	856,922
NE	770,926	291,447	69,938	92,473	3,857	1,143	1,467	352	466	19	11,056	4,180	1,003	1,326	55	1,249,709
NV	538,480	196,310	75,715	52,352	2,833	1,218	3,203	1,235	854	46	6,325	2,306	889	615	33	882,414
NH	591,191	156,444	56,637	54,095	3,124	630	532	192	184	11	6,298	1,667	603	576	33	872,219
NJ	4,304,278	426,926	283,363	352,654	18,021	2,339	3,336	2,214	2,756	141	49,209	4,881	3,240	4,032	206	5,457,595
NM	720,068	378,082	101,220	74,184	4,494	1,441	3,758	1,006	737	45	9,474	4,974	1,332	976	59	1,301,850
NY	7,501,409	846,626	457,129	632,301	25,838	8,889	6,424	3,469	4,798	196	119,859	13,528	7,304	10,103	413	9,638,285
NC	3,353,039	1,050,863	263,200	331,279	12,810	1,922	2,822	707	890	34	37,503	11,754	2,944	3,705	143	5,073,615
ND	334,542	164,911	36,507	38,110	2,275	632	1,086	240	251	15	3,459	1,705	377	394	24	584,530
OH	6,408,558	1,287,064	299,805	685,003	28,325	3,281	4,149	967	2,208	91	58,285	11,706	2,727	6,230	258	8,798,655
OK	1,519,916	755,189	135,397	159,754	9,319	1,596	2,869	514	607	35	17,019	8,456	1,516	1,789	104	2,614,081
OR	1,440,839	619,670	173,913	186,150	11,604	1,452	4,649	1,305	1,397	87	15,457	6,648	1,866	1,997	124	2,467,158
PA	5,691,444	1,067,351	424,393	540,441	26,157	5,351	5,400	2,147	2,734	132	46,817	8,780	3,491	4,446	215	7,829,299
RI	486,493	56,927	26,254	30,119	1,671	252	454	209	240	13	5,722	670	309	354	20	609,708
SC	1,715,835	508,982	120,825	155,018	6,306	1,673	2,607	619	794	32	22,765	6,753	1,603	2,057	84	2,545,951
SD	392,883	182,313	46,127	45,030	2,357	593	1,443	365	356	19	3,936	1,827	462	451	24	678,186
TN	2,968,845	1,039,284	208,542	274,457	12,522	3,546	5,345	1,072	1,411	64	25,366	8,880	1,782	2,345	107	4,553,568
TX	7,564,889	2,934,395	838,072	741,379	39,149	6,653	12,328	3,521	3,115	164	84,936	32,947	9,410	8,324	440	12,279,721
UT	730,881	266,817	110,419	88,224	3,737	980	2,066	855	683	29	9,852	3,596	1,488	1,189	50	1,220,869
VT	287,913	98,075	32,270	25,361	1,523	351	248	82	64	4	3,574	1,217	401	315	19	451,415
VA	3,523,415	875,017	291,276	331,562	13,795	2,684	4,225	1,406	1,601	67	36,367	9,031	3,006	3,422	142	5,097,016
WA	2,717,405	933,627	294,955	324,762	17,187	2,956	6,129	1,936	2,132	113	28,362	9,744	3,078	3,390	179	4,345,957
WV	744,875	297,596	73,112	62,846	2,885	927	1,129	277	238	11	9,836	3,930	965	830	38	1,199,496
WI	2,445,587	596,310	190,577	277,623	11,946	1,167	2,181	697	1,016	44	29,137	7,104	2,271	3,308	142	3,569,109
WY	214,683	153,053	49,892	24,024	1,909	409	1,565	510	246	20	3,408	2,430	792	381	30	453,354
Total	125,087,687	33,271,709	9,907,574	12,426,8	572,692	112,478	169,135	54,661	64,164	3,010	1,380,983	368,309	110,258	136,457	6,289	183,672,291

Table D.9. Final Private, Federal, and SCM Light-Duty Vehicle Counts by State and Type, 1993

State	Private & Commercial					Federal					State, County, and Municipal					1993 Total
	Auto	Pickup	Utility	Van	Other Trk	Auto	Pickup	Utility	Van	Other Trk	Auto	Pickup	Utility	Van	Other Trk	
AL	2,091,421	766,238	170,002	193,121	8,185	1,712	2,907	645	733	31	23,470	8,599	1,908	2,167	92	3,271,229
AK	217,399	145,551	65,306	37,971	2,488	518	1,553	697	405	27	3,590	2,404	1,078	627	41	479,654
AZ	1,759,246	638,665	221,628	196,789	9,660	2,290	4,811	1,670	1,482	73	19,657	7,136	2,476	2,199	108	2,867,891
AR	841,221	465,020	89,664	85,004	3,026	955	1,749	337	320	11	11,277	6,234	1,202	1,140	41	1,507,201
CA	14,539,282	3,927,519	1,336,497	1,477,387	63,872	13,022	22,506	7,658	8,466	366	138,765	37,485	12,756	14,100	610	21,600,289
CO	1,772,815	589,407	348,508	197,262	8,132	1,791	3,946	2,333	1,321	54	18,792	6,248	3,694	2,091	86	2,956,479
CT	1,975,494	274,955	143,876	143,183	6,089	907	1,859	973	968	41	19,131	2,663	1,393	1,387	59	2,572,975
DE	380,947	77,219	34,377	39,772	1,963	279	339	151	175	9	4,927	999	445	514	25	542,141
DC	220,664	8,330	9,324	12,026	587	2,610	873	977	1,260	61	6,889	260	291	375	18	264,547
FL	6,977,283	1,311,220	490,829	745,721	36,427	4,855	6,601	2,471	3,754	183	67,832	12,747	4,772	7,250	354	9,672,299
GA	3,554,978	1,173,825	299,637	375,007	17,781	2,554	3,962	1,011	1,266	60	37,019	12,223	3,120	3,905	185	5,486,534
HI	505,371	131,532	47,210	56,843	1,195	526	841	302	363	8	7,533	1,961	704	847	18	755,253
ID	489,990	303,748	90,484	58,355	3,046	680	2,848	848	547	29	5,535	3,431	1,022	659	34	961,256
IL	5,804,279	892,336	382,879	646,458	28,770	3,599	4,188	1,797	3,034	135	61,820	9,504	4,078	6,885	306	7,850,068
IN	2,966,407	864,201	180,276	387,611	16,603	1,416	2,307	481	1,035	44	29,777	8,675	1,810	3,891	167	4,464,700
IA	1,655,899	552,243	122,879	206,344	8,694	708	1,783	397	666	28	19,315	6,442	1,433	2,407	101	2,579,339
KS	1,102,027	429,204	100,341	141,955	6,904	817	1,749	409	579	28	16,320	6,356	1,486	2,102	102	1,810,378
KY	1,614,011	605,329	111,510	163,882	6,439	1,622	2,584	476	699	27	19,756	7,409	1,365	2,006	79	2,537,195
LA	1,878,951	801,087	151,886	202,575	9,224	1,664	2,906	551	735	33	24,234	10,332	1,959	2,613	119	3,088,869
ME	626,407	232,771	65,461	58,020	2,974	439	684	192	171	9	6,997	2,600	731	648	33	998,137
MD	2,552,969	445,095	200,188	251,807	11,050	2,635	2,910	1,309	1,646	72	26,936	4,696	2,112	2,657	117	3,506,200
MA	2,895,529	366,168	233,630	231,260	10,232	2,722	2,591	1,653	1,636	72	32,553	4,117	2,627	2,600	115	3,787,505
MI	4,872,343	1,129,452	383,988	654,248	36,228	2,675	3,896	1,325	2,257	125	49,803	11,545	3,925	6,687	370	7,158,869
MN	2,304,993	639,582	223,459	280,164	13,314	1,535	2,616	914	1,146	54	27,208	7,550	2,638	3,307	157	3,508,638
MS	1,201,550	540,450	87,745	106,365	4,539	1,364	2,214	359	436	19	14,965	6,731	1,093	1,325	57	1,969,211
MO	2,532,795	846,994	203,903	292,685	13,163	3,114	2,519	606	871	39	25,856	8,647	2,082	2,988	134	3,936,397
MT	438,749	295,988	77,920	50,831	3,111	899	2,967	781	510	31	7,741	5,222	1,375	897	55	887,077
NE	808,557	306,567	81,237	101,025	3,956	1,096	1,487	394	490	19	11,042	4,187	1,109	1,380	54	1,322,601
NV	543,032	196,468	84,310	54,094	2,894	1,168	3,221	1,382	887	47	6,464	2,339	1,004	644	34	897,986
NH	629,095	165,703	64,274	62,020	3,430	604	534	207	200	11	6,362	1,676	650	627	35	935,428
NJ	4,297,498	420,701	316,365	379,607	20,040	2,243	3,243	2,438	2,926	154	48,885	4,786	3,599	4,318	228	5,507,031
NM	721,571	386,247	112,758	79,045	4,895	1,382	3,811	1,113	780	48	9,527	5,100	1,489	1,044	65	1,328,874
NY	7,712,007	887,444	523,146	691,950	30,950	8,523	6,422	3,786	5,008	224	118,687	13,658	8,051	10,649	476	10,020,980
NC	3,362,174	1,075,442	294,124	357,704	14,990	1,843	2,851	780	948	40	38,805	12,412	3,395	4,128	173	5,169,808
ND	336,757	168,095	39,036	41,910	2,368	606	1,104	256	275	16	3,371	1,682	391	419	24	596,311
OH	6,497,227	1,325,852	342,273	749,505	32,609	3,146	4,162	1,074	2,353	102	57,829	11,801	3,046	6,671	290	9,037,940
OK	1,510,987	771,622	148,527	167,526	10,999	1,530	2,932	564	637	42	16,882	8,621	1,659	1,872	123	2,644,523
OR	1,449,757	623,512	197,030	196,145	11,231	1,393	4,679	1,478	1,472	84	15,427	6,635	2,097	2,087	120	2,513,146
PA	5,853,134	961,820	447,740	558,508	25,898	5,131	5,209	2,425	3,025	140	48,240	7,927	3,690	4,603	213	7,927,705
RI	530,744	68,669	31,614	36,680	2,038	242	470	216	251	14	6,070	785	362	420	23	678,599
SC	1,748,867	528,788	141,060	169,490	6,853	1,604	2,626	700	842	34	22,886	6,920	1,846	2,218	90	2,634,824
SD	428,475	199,538	53,400	53,869	2,418	569	1,461	391	394	18	3,958	1,843	493	498	22	747,346
TN	3,185,764	1,072,343	246,882	297,608	12,172	3,400	5,389	1,241	1,496	61	26,087	8,781	2,022	2,437	100	4,865,783
TX	7,684,243	3,047,397	930,715	791,521	46,407	6,380	12,553	3,834	3,260	191	86,757	34,406	10,508	8,937	524	12,667,634
UT	765,438	283,822	127,761	97,998	3,478	940	2,085	938	720	26	10,105	3,747	1,687	1,294	46	1,300,086
VT	296,874	101,222	35,479	28,608	1,490	336	250	88	71	4	3,555	1,212	425	343	18	469,973
VA	3,594,069	893,346	326,724	363,238	15,255	2,573	4,230	1,547	1,720	72	36,905	9,173	3,355	3,730	157	5,256,094
WA	2,616,906	930,804	329,105	336,831	15,310	2,835	6,175	2,183	2,234	102	28,246	10,047	3,552	3,636	165	4,288,131
WV	785,647	320,407	80,937	72,914	3,092	889	1,152	291	262	11	9,735	3,970	1,003	903	38	1,281,253
WI	2,459,148	627,154	214,185	308,902	13,632	1,119	2,201	752	1,084	48	28,836	7,354	2,511	3,622	160	3,670,707
WY	252,599	180,936	62,492	29,846	2,023	392	1,596	551	263	18	3,389	2,428	838	400	27	537,799
Total	125,843,591	33,998,029	11,104,583	13,319,192	622,122	107,851	170,550	59,955	68,076	3,198	1,375,747	373,703	122,355	145,153	6,789	187,320,895

Table D.10. Final Private, Federal, and SCM Light-Duty Vehicle Counts by State and Type, 1994

Table D.10. Final Private, Federal, and SCM Light-Duty Vehicle Counts by State and Type, 1994																
State	Private & Commercial					Federal					State, County, and Municipal					1994 Total
	Auto	Pickup	Utility	Van	Other Trk	Auto	Pickup	Utility	Van	Other Trk	Auto	Pickup	Utility	Van	Other Trk	
AL	1,901,818	727,626	159,313	181,349	8,242	1,693	3,103	679	773	35	23,723	9,076	1,987	2,262	103	3,021,782
AK	227,554	160,993	71,855	41,654	2,558	512	1,658	740	429	26	3,521	2,491	1,112	644	40	515,785
AZ	1,665,401	633,137	219,208	192,825	10,248	2,264	5,129	1,776	1,562	83	19,448	7,394	2,560	2,252	120	2,763,407
AR	850,532	490,590	94,233	89,733	4,640	944	1,858	357	340	18	11,292	6,513	1,251	1,191	62	1,553,554
CA	14,352,846	3,871,267	1,398,527	1,640,656	67,613	12,875	23,019	8,316	9,755	402	138,845	37,450	13,529	15,871	654	21,591,624
CO	1,565,237	559,519	320,594	181,761	8,429	1,770	4,257	2,439	1,383	64	18,614	6,654	3,813	2,162	100	2,676,796
CT	1,953,396	275,831	155,724	147,105	5,756	897	1,928	1,089	1,028	40	19,623	2,771	1,564	1,478	58	2,568,288
DE	383,372	80,446	36,416	42,750	2,128	276	357	161	190	9	5,105	1,071	485	569	28	553,364
DC	205,511	7,893	8,741	12,095	542	2,580	910	1,008	1,395	63	6,599	253	281	388	17	248,277
FL	7,012,253	1,365,113	530,016	790,403	36,456	4,801	6,942	2,695	4,019	185	69,431	13,516	5,248	7,826	361	9,949,265
GA	3,685,229	1,247,424	327,618	405,862	17,577	2,525	4,183	1,099	1,361	59	37,898	12,828	3,369	4,174	181	5,751,387
HI	510,514	135,502	49,761	60,594	1,074	520	884	324	395	7	7,535	2,000	734	894	16	770,755
ID	483,392	321,003	91,400	58,495	4,086	672	3,072	875	560	39	5,559	3,692	1,051	673	47	974,617
IL	6,124,763	996,720	438,181	694,440	37,960	3,559	4,479	1,969	3,121	171	62,046	10,097	4,439	7,035	385	8,389,362
IN	3,043,655	947,287	202,943	403,518	19,711	1,400	2,477	531	1,055	52	29,272	9,110	1,952	3,881	190	4,667,033
IA	1,649,682	590,708	128,562	203,011	11,225	700	1,935	421	665	37	19,340	6,925	1,507	2,380	132	2,617,230
KS	1,173,420	483,631	111,762	151,487	9,306	807	1,881	435	589	36	16,328	6,730	1,555	2,108	129	1,960,207
KY	1,590,777	630,059	117,171	165,012	7,371	1,604	2,760	513	723	32	19,775	7,832	1,457	2,051	92	2,547,229
LA	1,969,614	878,425	166,076	217,817	12,310	1,645	3,099	586	768	43	24,600	10,971	2,074	2,720	154	3,290,903
ME	560,546	216,674	61,633	54,950	2,643	434	725	206	184	9	6,917	2,674	761	678	33	909,066
MD	2,561,225	447,595	209,333	262,906	11,894	2,605	3,035	1,420	1,783	81	27,268	4,765	2,229	2,799	127	3,539,064
MA	3,022,440	384,645	262,743	253,661	9,511	2,692	2,675	1,827	1,764	66	32,554	4,143	2,830	2,732	102	3,984,386
MI	4,915,651	1,194,124	424,307	664,582	44,122	2,645	4,151	1,475	2,310	153	49,051	11,916	4,234	6,632	440	7,325,793
MN	2,521,373	744,457	256,480	309,878	16,541	1,518	2,823	973	1,175	63	27,356	8,077	2,783	3,362	179	3,897,038
MS	1,204,826	582,047	94,514	112,682	5,586	1,348	2,359	383	457	23	14,864	7,181	1,166	1,390	69	2,028,894
MO	2,558,596	910,741	219,861	300,491	17,197	3,079	2,700	652	891	51	26,045	9,271	2,238	3,059	175	4,055,045
MT	430,471	310,000	79,310	50,028	3,798	889	3,192	817	515	39	7,998	5,760	1,474	930	71	895,291
NE	807,071	331,303	86,175	103,446	4,929	1,084	1,602	417	500	24	10,969	4,503	1,171	1,406	67	1,354,668
NV	563,252	211,587	90,502	58,350	3,469	1,154	3,425	1,465	945	56	6,649	2,498	1,068	689	41	945,150
NH	639,362	168,668	68,482	65,907	3,362	597	558	227	218	11	6,473	1,708	693	667	34	956,967
NJ	4,373,009	431,820	351,217	403,228	21,207	2,218	3,334	2,711	3,113	164	48,746	4,814	3,915	4,495	236	5,654,227
NM	724,937	413,913	120,691	85,517	5,449	1,366	4,050	1,181	837	53	9,519	5,435	1,585	1,123	72	1,375,728
NY	7,551,715	898,445	550,069	713,811	30,740	8,428	6,730	4,121	5,347	230	117,403	13,968	8,552	11,097	478	9,921,135
NC	3,357,301	1,091,121	298,018	360,676	14,540	1,822	3,039	830	1,005	41	39,388	12,801	3,496	4,231	171	5,188,479
ND	336,309	176,916	39,323	40,332	2,377	599	1,201	267	274	16	3,437	1,808	402	412	24	603,698
OH	6,607,672	1,424,164	382,999	781,110	41,057	3,110	4,432	1,192	2,431	128	57,427	12,377	3,329	6,789	357	9,328,573
OK	1,498,405	792,830	149,058	171,476	13,258	1,513	3,126	588	676	52	16,834	8,907	1,675	1,926	149	2,660,473
OR	1,519,380	684,187	208,922	209,043	12,273	1,377	5,039	1,539	1,539	90	15,475	6,969	2,128	2,129	125	2,670,214
PA	5,916,519	1,063,025	467,710	549,175	29,013	5,073	5,792	2,548	2,992	158	48,790	8,766	3,857	4,529	239	8,108,187
RI	524,806	73,142	34,120	40,039	1,969	239	496	231	272	13	5,738	800	373	438	22	682,697
SC	1,735,857	551,113	147,191	175,643	7,359	1,586	2,796	747	891	37	22,630	7,185	1,919	2,290	96	2,657,340
SD	404,832	201,456	53,064	51,077	3,070	562	1,572	414	399	24	3,869	1,925	507	488	29	723,290
TN	3,173,450	1,136,539	257,244	311,581	14,260	3,361	5,757	1,303	1,578	72	26,295	9,417	2,132	2,582	118	4,945,689
TX	7,715,655	3,191,924	974,105	841,004	55,722	6,308	13,308	4,061	3,506	232	87,969	36,392	11,106	9,589	635	12,951,516
UT	785,673	306,347	136,341	97,046	4,253	929	2,258	1,005	715	31	10,275	4,007	1,783	1,269	56	1,351,990
VT	293,902	101,375	36,398	29,893	1,464	333	263	94	77	4	3,593	1,239	445	365	18	469,463
VA	3,614,634	929,190	340,509	378,817	16,364	2,544	4,495	1,647	1,833	79	37,346	9,600	3,518	3,914	169	5,344,660
WA	2,625,628	986,126	331,636	348,822	18,012	2,803	6,661	2,240	2,356	122	28,392	10,664	3,586	3,772	195	4,371,014
WV	826,642	353,637	89,367	79,313	3,818	879	1,228	310	275	13	9,806	4,195	1,060	941	45	1,371,531
WI	2,453,779	654,789	226,757	315,613	14,491	1,107	2,348	813	1,132	52	28,861	7,701	2,667	3,712	170	3,713,994
WY	223,106	170,899	57,969	26,607	2,164	388	1,714	581	267	22	3,349	2,566	870	399	32	490,934
Total	126,396,989	35,537,972	11,734,148	13,927,271	703,143	106,637	180,816	64,298	72,369	3,612	1,379,843	391,406	129,519	151,394	7,641	190,787,058

Table D.11. Final Private, Federal, and SCM Light-Duty Vehicle Counts by State and Type, 1995

State	Private & Commercial					Federal					State, County, and Municipal					1995 Total
	Auto	Pickup	Utility	Van	Other Trk	Auto	Pickup	Utility	Van	Other Trk	Auto	Pickup	Utility	Van	Other Trk	
AL	2,093,282	818,772	190,589	209,043	4,664	1,710	3,230	752	825	18	23,380	9,145	2,129	2,335	52	3,359,927
AK	229,836	161,647	75,270	43,565	2,274	517	1,714	798	462	24	3,506	2,466	1,148	665	35	523,928
AZ	1,665,794	662,232	239,936	204,223	6,726	2,288	5,347	1,937	1,649	54	19,879	7,903	2,863	2,437	80	2,823,347
AR	857,719	511,894	102,046	99,987	2,147	953	1,932	385	377	8	11,344	6,770	1,350	1,322	28	1,598,265
CA	14,146,804	3,959,775	1,498,283	1,771,169	42,316	13,007	23,748	8,986	10,622	254	137,675	38,536	14,581	17,237	412	21,683,404
CO	1,573,420	577,077	342,992	195,147	5,838	1,789	4,406	2,619	1,490	45	18,719	6,865	4,081	2,322	69	2,736,877
CT	1,950,869	273,947	176,332	154,794	4,024	906	1,931	1,243	1,091	28	19,827	2,784	1,792	1,573	41	2,591,184
DE	387,330	83,343	40,157	46,339	1,033	279	368	177	204	5	5,299	1,140	549	634	14	566,872
DC	199,856	7,865	8,629	11,901	207	2,607	975	1,070	1,476	26	6,007	236	259	358	6	241,479
FL	7,022,649	1,394,155	573,005	835,855	14,740	4,850	7,198	2,958	4,315	76	70,000	13,896	5,712	8,332	147	9,957,887
GA	3,718,933	1,268,184	372,227	435,066	7,436	2,551	4,289	1,259	1,471	25	38,492	13,126	3,853	4,503	77	5,871,493
HI	515,562	142,436	54,788	66,734	862	526	910	350	426	6	7,368	2,036	783	954	12	793,753
ID	484,042	323,301	96,621	61,199	3,205	679	3,189	953	604	32	5,712	3,815	1,140	722	38	985,253
IL	6,339,288	995,603	493,706	758,781	15,531	3,595	4,502	2,232	3,431	70	63,233	9,931	4,925	7,569	155	8,702,552
IN	3,111,843	998,794	232,635	440,878	9,601	1,414	2,568	598	1,134	25	28,738	9,224	2,148	4,072	89	4,843,760
IA	1,650,437	609,339	139,931	216,718	6,795	707	2,013	462	716	22	19,527	7,209	1,656	2,564	80	2,658,178
KS	1,151,201	492,551	119,357	160,833	4,681	816	1,959	475	640	19	16,368	7,003	1,697	2,287	67	1,959,952
KY	1,548,371	623,791	128,003	169,531	3,978	1,621	2,855	586	776	18	20,088	8,093	1,661	2,199	52	2,511,622
LA	1,848,028	863,916	171,602	224,883	4,814	1,662	3,227	641	840	18	24,492	11,450	2,274	2,980	64	3,160,890
ME	566,795	220,821	65,641	61,241	1,806	439	746	222	207	6	6,835	2,663	792	738	22	928,973
MD	2,541,541	450,756	226,574	283,006	4,471	2,632	3,102	1,559	1,948	31	27,335	4,848	2,437	3,044	48	3,553,333
MA	3,362,801	429,734	310,773	295,186	7,313	2,719	2,743	1,983	1,884	47	32,814	4,193	3,032	2,880	71	4,458,174
MI	4,906,184	1,217,624	473,402	729,419	11,794	2,672	4,256	1,655	2,550	41	48,271	11,980	4,658	7,177	116	7,421,799
MN	2,368,631	721,385	259,925	321,498	9,829	1,534	2,907	1,048	1,296	40	28,532	8,690	3,131	3,873	118	3,732,436
MS	1,229,868	615,235	107,710	121,770	3,130	1,362	2,457	430	486	13	14,898	7,453	1,305	1,475	38	2,107,630
MO	2,533,413	939,590	242,792	326,316	8,254	3,111	2,795	722	971	25	26,080	9,672	2,499	3,359	85	4,099,684
MT	432,832	318,405	83,759	53,684	3,191	898	3,327	875	561	33	7,581	5,576	1,467	940	56	913,185
NE	795,204	338,197	92,955	109,023	2,891	1,095	1,664	457	537	14	10,742	4,569	1,256	1,473	39	1,360,115
NV	590,862	225,031	102,086	64,947	2,609	1,166	3,530	1,602	1,019	41	6,883	2,621	1,189	757	30	1,004,374
NH	720,436	190,098	81,158	79,728	2,464	603	573	245	240	7	6,371	1,681	718	705	22	1,085,049
NJ	4,382,961	426,380	401,023	428,092	9,383	2,240	3,303	3,106	3,316	73	48,430	4,711	4,431	4,730	104	5,722,283
NM	752,157	430,567	129,805	93,432	3,051	1,380	4,217	1,271	915	30	9,643	5,520	1,664	1,198	39	1,434,889
NY	7,523,191	901,728	608,667	759,063	17,878	8,514	6,807	4,595	5,730	135	113,835	13,644	9,210	11,486	271	9,984,753
NC	3,475,985	1,150,375	331,426	389,544	6,145	1,840	3,165	912	1,072	17	39,760	13,159	3,791	4,456	70	5,421,717
ND	340,257	178,943	40,580	41,923	1,557	605	1,257	285	294	11	3,501	1,841	418	431	16	611,919
OH	6,612,747	1,449,960	438,116	851,637	15,685	3,142	4,526	1,368	2,658	49	57,283	12,560	3,795	7,377	136	9,461,039
OK	1,499,118	817,193	160,394	188,983	6,402	1,529	3,252	638	752	25	16,608	9,053	1,777	2,094	71	2,707,892
OR	1,512,151	697,085	223,085	221,832	10,365	1,391	5,218	1,670	1,661	78	15,584	7,184	2,299	2,286	107	2,701,995
PA	5,827,668	1,059,239	544,133	573,820	14,811	5,125	5,836	2,998	3,162	82	49,695	9,033	4,640	4,893	126	8,105,261
RI	518,608	73,253	38,232	42,757	1,226	242	501	262	293	8	5,670	801	418	467	13	682,751
SC	1,787,874	569,853	157,103	186,330	3,222	1,602	2,922	806	955	17	22,702	7,236	1,995	2,366	41	2,745,024
SD	363,061	183,409	50,138	48,036	1,976	568	1,637	448	429	18	3,861	1,951	533	511	21	656,597
TN	3,320,507	1,232,493	308,219	354,805	6,514	3,396	5,932	1,483	1,708	31	26,264	9,748	2,438	2,806	52	5,276,396
TX	7,595,443	3,262,149	1,022,961	907,047	18,040	6,372	13,891	4,356	3,862	77	88,966	38,210	11,982	10,624	211	12,984,191
UT	794,279	313,704	146,106	100,599	3,795	939	2,343	1,091	751	28	10,391	4,104	1,911	1,316	50	1,381,407
VT	290,717	102,765	38,414	32,741	1,091	336	271	101	86	3	3,559	1,258	470	401	13	472,228
VA	3,640,075	949,645	375,921	404,888	7,334	2,570	4,626	1,831	1,972	36	36,784	9,596	3,799	4,092	74	5,443,242
WA	2,605,423	1,007,907	352,570	364,404	16,017	2,831	6,924	2,422	2,503	110	28,531	11,037	3,861	3,990	175	4,408,706
WV	794,925	345,371	94,346	80,394	1,995	888	1,270	347	296	7	9,608	4,175	1,140	972	24	1,335,758
WI	2,457,980	669,304	244,360	338,763	8,155	1,118	2,425	885	1,227	30	29,375	7,999	2,920	4,049	97	3,768,687
WY	260,757	206,072	70,640	33,482	1,713	392	1,794	615	291	15	3,286	2,597	890	422	22	582,987
Total	126,899,713	36,462,893	12,879,123	14,995,037	354,978	107,726	186,580	70,771	78,182	1,948	1,379,336	400,995	141,467	162,452	3,897	194,125,097

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