Refinement of the Simplified Arizona Highway Cost Allocation Study Model

Final Report 477(2)

Prepared by:
Jason Carey
P.O. Box 87862
Phoenix, AZ 85080

September 2000

Prepared for:
Arizona Department of Transportation
206 South 17th Avenue
Phoenix, Arizona 85007
in cooperation with
U.S. Department of Transportation
Federal Highway Administration

Technical Report Documentation Page

1. Report No.	2. Government Accession No.	3. Recipient's Catalog No.
FHWA-AZ-00-477(2)		

4. Title and Subtitle	5. Report Date
Refinement of the Simplified Arizona Highway Cost Allocation Study Model	September 2000
	6. Performing Organization Code
7. Authors	8. Performing Organization Report No.
Jason Carey	
9. Performing Organization Name and Address	10. Work Unit No.
Jason Carey , P.O. Box 87862, Phoenix, AZ 85080	11. Contract or Grant No. SPR-PL-1-(55) 477
12. Sponsoring Agency Name and Address **ARIZONA DEPARTMENT OF TRANSPORTATION** **206 S. 17TH AVENUE** **PHOENIX, ARIZONA 85007** Project Manager: John Semmens	13.Type of Report & Period Covered
	14. Sponsoring Agency Code

15. Supplementary Notes

Prepared in cooperation with the U.S. Department of Transportation, Federal Highway Administration

16. Abstract

The purpose of this report was to evaluate the Simplified Model for Cost Allocation (SMHCAS) developed for the Arizona Department of Transportation in 1999. Results from the SMHCAS were compared with forecasts produced by the Arizona Highway Cost Allocation model. The new FHWA cost allocation model was also evaluated as a possible alternative.

This phase of the update revealed that the SMHCAS provides a reasonably accurate proxy for the more complicated model currently used by ADOT. Effective use of the FHWA model continued to be prevented by undefined and unavailable data inputs, as well as the model's incomplete status. Comparisons of the SMHCAS and the Arizona Highway Cost Allocation model were made for the fiscal 2000 to 2004 period, as well as for various five-year periods from 1988 to 2003. Forecast results produced by the two models for these periods were quite similar, with share of revenue and cost responsibility by vehicle class varying by less than 5 percent in most cases. These results suggest that greater complexity in the development of highway cost allocation methods does not provide a benefit commensurate with the amount of effort and cost required for updates.

The Simplified Model for Highway Cost Allocation provides reasonable estimates of cost responsibility and revenues attributable to vehicle and weight classes using readily available data. The model can be updated by state DOTs in a short period of time without the assistance of external consultants. In light of these benefits, it is recommended that ADOT use the simplified model for future highway cost allocation updates. In order to facilitate future use of the model, a detailed users manual and documentation package have been prepared in this report.

17. Key Words	18. Distribution Statement	23. Registrant's Seal
cost allocation, tax equity	Document is available to the U.S. public through the National Technical Information Service, Springfield, Virginia 22161	

19. Security Classification	20. Security Classification	21. No. of Pages	22. Price
Unclassified	Unclassified	168	

METRIC (SI*) CONVERSION FACTORS

APPROXIMATE CONVERSIONS TO SI UNITS

Symbol	When You Know	Multiply By	To Find	Symbol
	LENGTH			
in	inches	2.54	centimeters	cm
ft	feet	0.3048	meters	m
yd	yards	0.914	meters	m
mi	miles	1.61	kilometers	km
	AREA			
in^2	square inches	6.452	centimeters squared	cm^2
ft^2	square feet	0.0929	meters squared	m^2
yd^2	square yards	0.836	meters squared	m^2
mi^2	square miles	2.59	kilometers squared	km^2
ac	acres	0.395	hectares	ha
	MASS (weight)			
oz	ounces	28.35	grams	g
lb	pounds	0.454	kilograms	kg
T	short tons (2000 lb)	0.907	megagrams	Mg
	VOLUME			
fl oz	fluid ounces	29.57	milliliters	mL
gal	gallons	3.785	liters	L
ft^3	cubic feet	0.0328	meters cubed	m^3
yd^3	cubic yards	0.765	meters cubed	m^3

Note: Volumes greater than 1000 L shall be shown in m^3.

	TEMPERATURE (exact)			
°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C

APPROXIMATE CONVERSIONS TO SI UNITS

Symbol	When You Know	Multiply By	To Find	Symbol
	LENGTH			
mm	millimeters	0.039	inches	in
m	meters	3.28	feet	ft
yd	meters	1.09	yards	yd
km	kilometers	0.621	miles	mi
	AREA			
mm^2	millimeters squared	0.0016	square inches	in^2
m^2	meters squared	10.764	square feet	ft^2
yd^2	kilometers squared	0.39	square miles	mi^2
ha	hectares (10,000 m^2)	2.53	acres	ac
	MASS (weight)			
g	grams	0.0353	ounces	oz
kg	kilograms	2.205	pounds	lb
Mg	megagrams (1000 kg)	1.103	short tons	T
	VOLUME			
mL	millimeters	0.034	fluid ounces	fl oz
L	liters	0.264	gallons	gal
m^3	meters cubed	35.315	cubic feet	ft^3
m^3	meters cubed	1.308	cubic yards	yd^3

	TEMPERATURE (exact)			
°C	Celsius temperature	9/5 (then add 32)	Fahrenheit temperature	°F

These factors conform to the requirement of FHWA Order 5190.1A

*SI is the symbol for the International System of Measurements

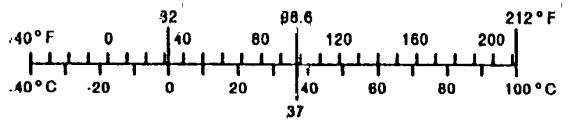


Table of Contents

List of Tables

List of Figures

Summary of Key Findings

The lack of direct charges for use of the roads creates the need for states to perform Highway Cost Allocation Studies in order to answer two basic questions: (1)are highway users, as a group, paying the full cost of the roadways and (2)is each class of vehicle paying its fair share? A number of methodologies of varying complexity exist for preparing an HCAS. Attempts to compare results between states and among various levels of government have historically been thwarted by the different methods of highway cost allocation in use. An important element of Phase II of this project has been an assessment of the options available to ADOT, including a more rigorous comparison of the Arizona Highway Cost Allocation Study (AzHCAS) model and the Simplified Model for Highway Cost Allocation (SMHCAS) developed in Phase I.

The SMHCAS was back-tested and compared to the AzHCAS for various fiscal periods from 1988 to 2004 in order to assess the accuracy of forecasts produced using the simplified methodology. The SMHCAS assigned construction costs based on the premise that in urban areas, these costs are driven primarily by the need to provide sufficient roadway capacity, while in rural areas, these costs are driven primarily by the need to provide pavements of sufficient strength to handle heavy vehicles. Consequently, in urban areas, costs were allocated based on vehicle miles of travel, while in rural areas, costs were allocated based on vehicle axle weights per mile driven.

Cumulative forecast results for fiscal years 1988 to 2004 produced by the AzHCAS and the SMHCAS models are shown in Table 1. With 100% representing a perfect match between cost responsibility and tax payments, for the extended period (FY 1988-2004) covered by highway cost allocation study updates in Arizona, highway users, as a group, are estimated to have paid about 98% of the cost of the roadways. Among the various classes of highway users, pick-up trucks and sport utility vehicles are estimated to be paying more than their fair share according to both cost allocation models (120% in the AzHCAS and 119% in the SMHCAS). Both models project marginal underpayment by passenger autos (94% and 93%) and combination trucks (93% and 95%).

Table 1: Cumulative Cost Allocation Share Results by Vehicle Class, 1988 to 2004
(Dollars in Millions)

Vehicle Class	AzHCAS Model			SMHCAS Model		
	Share of Revenue	Share of Cost Resp.	Equity Ratio	Share of Revenue	Share of Cost Resp.	Equity Ratio
Autos	44%	46%	94%	42%	45%	93%
Pick-ups and SUVs	23%	18%	120%	26%	21%	119%
Buses	0%	1%	68%	1%	1%	110%
Single Unit Trucks	7%	8%	81%	6%	7%	91%
Combination Trucks	26%	28%	93%	25%	26%	95%
Totals	100%	100%	97%	100%	100%	99%

Note: 1. Totals reflect adjustment for construction program expenditures discussed on pages 6 and 19.

Results for single-unit trucks and buses are considerably more varied. While both models allocate a similar share of revenues to single-unit trucks, the AzHCAS assigns a greater share of cost responsibility to these vehicles. The net result is a higher amount of underpayment forecast by the AzHCAS, with single-unit truck revenues estimated at 81 percent of cost responsibility in the AzHCAS versus 91 percent in the SMHCAS. The net results for buses are more markedly different, with a substantially higher share of revenue attributed to these vehicles by the SMHCAS. This creates the only divergence in equity trends forecast by vehicle class: the AzHCAS estimates underpayment by buses, while the SMHCAS estimates overpayment. However, when vehicle classes are considered according to broad types, a consistent pattern emerges. Lighter vehicles are paying their fair share of highway user revenues, while heavier vehicles are estimated to be paying less than their fair share.

The new highway cost allocation model under development by the FHWA was found to be unsuitable for use in Arizona at this time. While updates have been made to the federal model since completion of Phase I of this study, the federal model remains incomplete. The federal model is behind schedule in its development and lacks sufficient documentation for use in its current form. It also requires the input of data that ADOT does not have. It would require significant effort or the intervention of external consultants to create this input data from existing internal ADOT sources.

The existing ADOT highway cost allocation model was found to have some serious limitations. As indicated in Phase I of this study, the internal workings of the AzHCAS are driven by obsolete FORTRAN programming language. Many of the data relationships are “hard wired” and not easily adjusted for changes in tax rates, traffic, or expenditure categories, making continued use of this model cumbersome. Additionally, significant errors in construction program attribution have been found in the most recent forecasts using the Arizona model. The excessive construction expenditures forecast by the AzHCAS for the 1999 to 2003 and 2000 to 2004 periods have required adjustments to the model outputs, as well as a restatement of Phase I results.

The simplified model (SMHCAS) developed for Phase I of this study has been further refined to enhance its portability and ease of use. As an alternative to the AzHCAS model, the SMHCAS provides reasonably accurate estimates of user revenues and cost responsibility for most vehicle classes. User revenues and cost responsibility estimates produced by the two models tended to be closest for the more significant vehicle classes (e.g. autos and combination trucks). In general, the SMHCAS appears to more accurately distribute revenues than costs. While there were some differences between the ADOT highway cost allocation model and the simplified model in the results generated by vehicle class, the outcomes for the dominant classes of highway users were similar. In the aggregate, both models show lighter vehicles paying user fees equal to their cost responsibility and trucks paying less than their cost responsibility. Since these classes of vehicles account for about 98% of costs and revenues, the utility of the simplified model as a “macro” policy tool appears warranted.

I. Introduction to Highway Cost Allocation

A highway cost allocation study (HCAS) is an attempt to compare revenues collected from various highway users to the expenses incurred by highway agencies in providing facilities for these users. The basic premise behind an HCAS is that highway users should pay an amount sufficient to cover the cost incurred by highway agencies in providing these facilities. Likewise, highway users should not be required to pay more than it costs to provide the facilities they require.

Highway cost allocation studies are undertaken in order to assess the equity of the existing highway user tax structure and determine whether changes in that structure are needed. Because highway user taxes are generally collected through indirect means such as taxation of fuel or the value of the vehicle, and not through direct charges for use of the roadway, determination of equity is a complicated endeavor. Highway cost allocation studies have been devised in order to resolve the complicated distribution of revenues and expenses among different groups of highway users.

Highway users are grouped according to such variables as vehicle type, vehicle weight, commercial and non-commercial status, etc. in order to estimate the expenses that each group imposes on the highway system and the revenues that each group generates. The expenditure side of the HCAS equation includes all actual planned and estimated outlays for roads (including overhead), regardless of the source of these funds. These expenditures represent what it costs to serve the needs of highway users. The cost allocation study does not consider issues of "need," nor does it evaluate how much money should be spent on highways. The HCAS merely allocates responsibility to various classes of highway users for the amounts of money that various government agencies plan to spend on highways.

Revenues allocated among the various classes of highway users in an HCAS include only those revenues directly attributable to taxes paid by highway users for the use of the highways. The revenue side of the HCAS equation does not include non-user taxes that may be spent on highways. For example, sales taxes spent by the Arizona Department of Transportation (ADOT) on the Maricopa County freeway system and property taxes spent by local governments on roads and streets are not a charge for use of the highway system and are consequently not considered as revenues by the HCAS. Arizona highway user revenues include gasoline and diesel fuel taxes, motor carrier fees, vehicle license and registration fees, and other miscellaneous fees related to the use of a motor vehicle.

About two-thirds of the states do some kind of highway cost allocation study. Some have in-house staff at the Department of Transportation conduct the study. Others hire consultants to perform the study. The original Arizona HCAS was performed by a consultant and published in January of 1993. An update was subsequently prepared by ADOT staff in 1996. Phases I and II of this update are being prepared by ADOT with the assistance of an Arizona State University graduate student.

II. Options for Conducting Highway Cost Allocation Studies

Highway cost allocation studies have been conducted by a number of state governments and by the Federal Highway Administration (FHWA) over the past several decades. Methods and assumptions for the distribution of cost responsibility have often varied considerably among these highway cost allocation studies, but the general premises tend to reflect a "common" cost responsibility related to the provision and administration of basic roadway requirements, with added cost responsibility based upon proportional increments of axle loads, gross weight, vehicle width, etc. that different vehicles impose on the highway system.[1]

The developmental trend in highway cost allocation studies has been toward an increased level of detail (or "dis-aggregation") in accounting for various types of expenditures and classes of vehicles and roadways. However, while this dis-aggregation has been perceived in a positive light from a theoretical standpoint (Urban Institute, *et. al.*, 1990), it is not clear that the additional labor required to gather and report these variables has resulted in more useful results. All highway cost allocation studies require a significant degree of abstraction: it is not known that a given vehicle class is responsible for a certain expenditure level, nor for a certain proportion of travel, fuel tax revenues, etc. While reasonable estimates may be made from the data at hand, it is not clear that a more complicated (and theoretically justifiable) attribution of revenues and cost responsibility will actually result in a more accurate distribution.

A number of methodologies of varying complexity exist for preparing an HCAS. Attempts to compare results between states and among various levels of government have historically been thwarted by the different methods of highway cost allocation in use. While a standardized model is being developed for the use of state governments with the support of the FHWA, this "Federal Model" (FHCAS) remains incomplete. Arizona HCAS updates have been performed using a model (AzHCAS) developed for ADOT by SYDEC in 1993. However, due to difficulties arising from the complicated design of the Arizona HCAS during recent updates, a simplified model (SMHCAS) was developed for ADOT as a part of the 1999 update.

While the SMHCAS presents the least complicated of the three alternatives readily available to ADOT for conducting future highway cost allocation studies, the 1999 update provided a limited assessment of the SMHCAS output relative to the model currently in use by ADOT. An important element of Phase II of this project has been a more rigorous comparison of the SMHCAS to the AzHCAS to determine whether the simplicity of the SMHCAS has a detrimental effect on its accuracy relative to the AzHCAS.[2] Further discussion of the three HCAS alternatives available to the Arizona Department of Transportation is provided in the following section.

---

[1] For a detailed discussion of various state and federal studies from 1977 to 1990, see Appendix C in *Rationalization of Procedures for Highway Cost Allocation*, 1990.

[2] The "accuracy" of the SMHCAS refers to the degree to which its results match (i.e. substitute for) those of the AzHCAS. It should not be inferred that the output of either model represents anything other than a "best-guess" scenario.

Arizona HCAS Model (AzHCAS)

The original Arizona Highway Cost Allocation Model was created by SYDEC, Inc. for the Arizona Department of Transportation in 1993. The model uses a series of Fortran programs to allocate revenues and cost responsibilities among vehicle classes based on a variety of print file and database inputs. Print files are generated by several spreadsheets that tabulate expenditures, revenues and tax rates, registration and vehicle characteristics, and vehicle miles of travel by vehicle type and functional class of roadway.[3] The basic structure of the model is discussed below.

Revenue Attribution

Revenues collected are broken down for the purpose of the cost allocation model based on several criteria. State and federal fuel tax revenues are attributed based on estimates of VMT on Arizona roadways and fuel economy of each vehicle class. State registration fees and federal use taxes are attributed using the annual fees applicable to vehicles depending on registered weight. Estimated percentage of annual travel in Arizona is used to adjust revenue estimates for trucks operating in several states. State motor carrier taxes are now attributed to vehicles depending on registered weight, with varying flat fees assessed on all weight categories.

State vehicle license and Federal truck and trailer taxes are attributed to vehicle classes using estimates of annual new vehicle sales and prices, with sales for each vehicle class estimated using national sales data. Federal tire tax fees are attributed to heavy vehicles in proportion to the product of VMT and average number of tires. Oversize permit fees are attributed to heavy single-unit and combination trucks based on proportion of VMT per class. Title fees, operator licenses and inquiry fees are attributed in proportion to the number of Arizona-based vehicles. All other fees are attributed based on proportion of VMT in Arizona.

Cost Allocation

Costs of construction, maintenance and general operation of highway-related programs are allocated to various vehicle classes and compared with revenues in order to determine whether each class is paying its share of highway-related costs. Costs are allocated among vehicle classes using the Federal Method of allocation. The Federal method assumes a minimum pavement thickness in allocation of pavement construction costs. This minimum is distributed among all vehicle classes, while the cost of thicker pavement is attributed to heavier vehicles in proportion to axle loads. Pavement rehabilitation is also allocated in varying degrees, depending on a vehicle's "consumption" of pavement (i.e. contribution to the need for pavement repair).

[3] It should be noted that the collection of vehicle classification data and the corresponding measurement of VMT are subject to limitations in the frequency and scope of collection. Data collected in Arizona are from samples taken mainly on the State Highway System and are collected for short periods of time and/or infrequent intervals on some highway segments. The data collected are therefore likely to exhibit substantial fluctuation between measurement periods for any given portion of the highway system. While these data are assumed to provide reasonable estimates for statewide aggregates of cost responsibility, the application to smaller subsets of roadways may not be appropriate. Any enhancements that are made to monitor traffic streams will serve to refine and improve the effectiveness and fairness of the HCAS.

Table 2: Cost Allocation Methods

Cost Category	Allocation Method
New Pavement	Minimum pavement thickness
Pavement Rehabilitation	Pavement consumption
New Bridges	Incremental analysis of strength
Bridge Replacement	Incremental analysis of strength / Load bearing function
Bridge Repair	Common cost
Grading for New Facilities	Incremental analysis of earthwork requirements
Engineering	Prorated based on other capital outlays for construction
Right-of-Way	Common cost

The method used in cost allocation varies by the type of expenditure. While some costs are common to all vehicles, such as basic (i.e. minimum) pavement requirements and highway patrol, other costs are allocated to certain vehicle classes in proportion to those vehicles' responsibility for the costs incurred. Extra pavement thickness is required for the operation of heavy trucks on roadways, and thus, these vehicles are allocated additional cost responsibility to account for the additional thickness. In general, the model assumes a minimum level of strength for capital projects such as bridges and highways and assigns the cost of these minimum standards to vehicle and weight classes according to VMT. Added construction costs applicable to the extra strength and width requirements of larger, heavier vehicles are assigned to these vehicles according to axle loads (pavement thickness and pavement maintenance) and gross weight (bridge construction).

Limitations of the AzHCAS

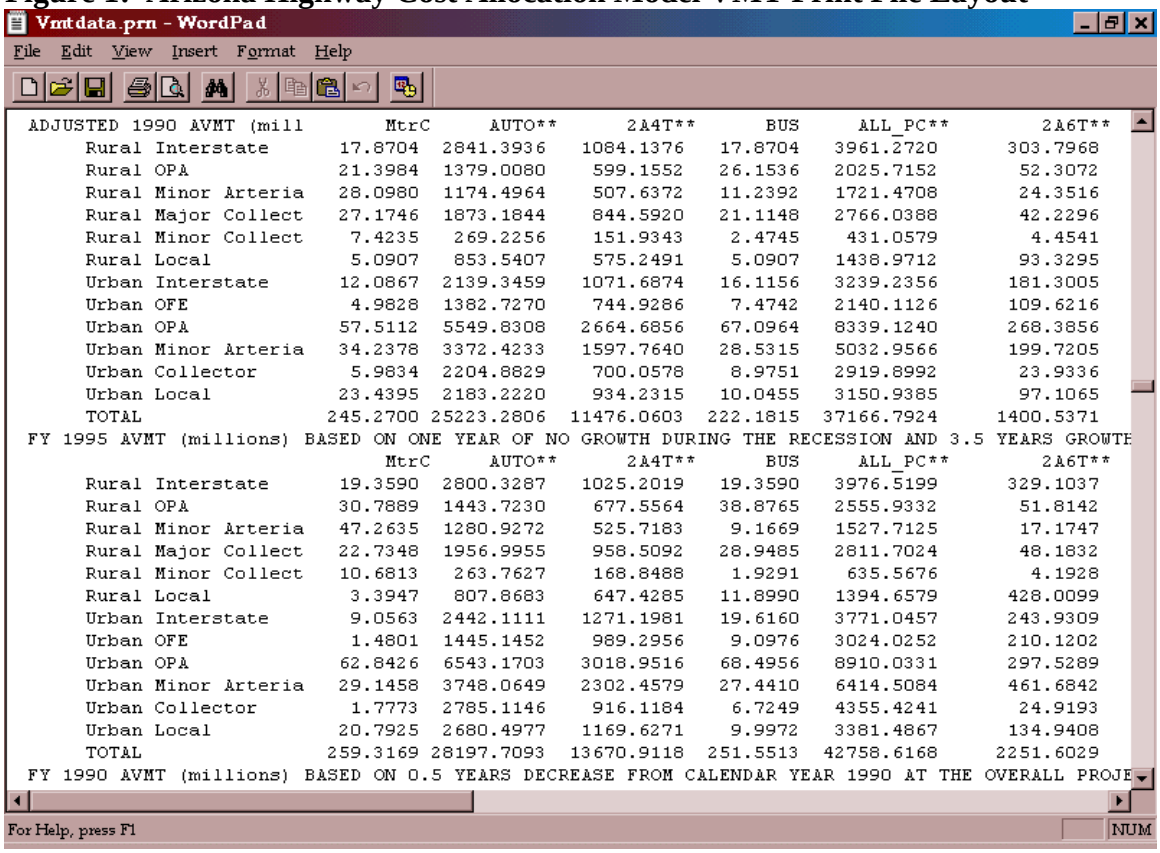
The primary limitation of the AzHCAS is its complexity. In total, the AzHCAS model consists of 141 separate files, not including several missing spreadsheets. Multiple file steps are required for updating virtually all of the input variables in the AzHCAS. This requirement becomes particularly time consuming due to the fact that some of the original spreadsheets were not packaged with the model. Because specific cell dimensions are required for the Fortran programs to work properly, new spreadsheets created for updates can not simply be converted to print files, and recalculated inputs must be printed and re-keyed into the AzHCAS print files by hand. In addition, formulas required for manipulation of several data inputs were only available in the missing spreadsheets, and thus the actual formulas used in the AzHCAS often must be estimated. As an example, the steps taken to update VMT in the 1999 update of the AzHCAS are discussed further.

Updates to VMT in the AzHCAS model require a series of steps. First, a spreadsheet is created for the new VMT data, updated using estimated growth rates as discussed above. However, because the Fortran program employed in the AzHCAS model can not read directly from a spreadsheet program, the recalculated data must next be converted to a "print file" (i.e. delimited text format), shown in the graphic below. Changes to values in the print files can not be recaculated in the print file, and must therefore be changed in the associated spreadsheet (which

must then be reformatted) or recalculated manually and input using the same number of spaces as the original figures.

This poses a number of problems when updating the AzHCAS model. First, as the graphic indicates, program years 1990 and 1995 are "hardwired" into the ADOT model. A successful update requires substitution of data for specific years in different parts of the model to ensure that the corresponding spreadsheet formulas remain accurate. For example, the original update was performed during a recessionary period and assumed a year of stagnant growth in VMT. In order to avoid this assumption in future updates, VMT from a later period must be used in forecasting. Inconsistencies in data requirements are endemic in the AzHCAS model because users are not always permitted to specify growth rates or change forecast formulas.

Figure 1: Arizona Highway Cost Allocation Model VMT Print File Layout



Vmtdata.prn - WordPad

File Edit View Insert Format Help

```
 ADJUSTED 1990 AVMT (mill        MtrC      AUTO**      2A4T**       BUS      ALL_PC**       2A6T**
      Rural Interstate        17.8704   2841.3936   1084.1376   17.8704   3961.2720       303.7968
      Rural OPA               21.3984   1379.0080    599.1552   26.1536   2025.7152        52.3072
      Rural Minor Arteria     28.0980   1174.4964    507.6372   11.2392   1721.4708        24.3516
      Rural Major Collect     27.1746   1873.1844    844.5920   21.1148   2766.0388        42.2296
      Rural Minor Collect      7.4235    269.2256    151.9343    2.4745    431.0579         4.4541
      Rural Local              5.0907    853.5407    575.2491    5.0907   1438.9712        93.3295
      Urban Interstate        12.0867   2139.3459   1071.6874   16.1156   3239.2356       181.3005
      Urban OFE                4.9828   1382.7270    744.9286    7.4742   2140.1126       109.6216
      Urban OPA               57.5112   5549.8308   2664.6856   67.0964   8339.1240       268.3856
      Urban Minor Arteria     34.2378   3372.4233   1597.7640   28.5315   5032.9566       199.7205
      Urban Collector          5.9834   2204.8829    700.0578    8.9751   2919.8992        23.9336
      Urban Local             23.4395   2183.2220    934.2315   10.0455   3150.9385        97.1065
      TOTAL                  245.2700  25223.2806  11476.0603  222.1815  37166.7924      1400.5371
 FY 1995 AVMT (millions) BASED ON ONE YEAR OF NO GROWTH DURING THE RECESSION AND 3.5 YEARS GROWTH
                              MtrC      AUTO**      2A4T**       BUS      ALL_PC**       2A6T**
      Rural Interstate        19.3590   2800.3287   1025.2019   19.3590   3976.5199       329.1037
      Rural OPA               30.7889   1443.7230    677.5564   38.8765   2555.9332        51.8142
      Rural Minor Arteria     47.2635   1280.9272    525.7183    9.1669   1527.7125        17.1747
      Rural Major Collect     22.7348   1956.9955    958.5092   28.9485   2811.7024        48.1832
      Rural Minor Collect     10.6813    263.7627    168.8488    1.9291    635.5676         4.1928
      Rural Local              3.3947    807.8683    647.4285   11.8990   1394.6579       428.0099
      Urban Interstate         9.0563   2442.1111   1271.1981   19.6160   3771.0457       243.9309
      Urban OFE                1.4801   1445.1452    989.2956    9.0976   3024.0252       210.1202
      Urban OPA               62.8426   6543.1703   3018.9516   68.4956   8910.0331       297.5289
      Urban Minor Arteria     29.1458   3748.0649   2302.4579   27.4410   6414.5084       461.6842
      Urban Collector          1.7773   2785.1146    916.1184    6.7249   4355.4241        24.9193
      Urban Local             20.7925   2680.4977   1169.6271    9.9972   3381.4867       134.9408
      TOTAL                  259.3169  28197.7093  13670.9118  251.5513  42758.6168      2251.6029
 FY 1990 AVMT (millions) BASED ON 0.5 YEARS DECREASE FROM CALENDAR YEAR 1990 AT THE OVERALL PROJE
```

For Help, press F1 NUM

The multiple steps required for updating VMT in the AzHCAS model are similar for other inputs, including vehicle characteristics (e.g. gas mileage and values), tax rates and fees, and obligation program expenditures. Furthermore, the AzHCAS allocation programs write ouptuts to text files. Outputs must then be converted from text to spreadsheet format if any additional analyses are to be performed.

Another drawback to the AzHCAS has occurred in recent updates. In trial runs for the 1999 to 2003 and 2000 to 2004 program periods, the AzHCAS has returned projections of state and federal construction spending that grossly exceed the program inputs. In some cases (e.g.

federally funded expenditures for 2000 to 2004), the AzHCAS has overstated ADOT's capital expenditure forecasts by an amount in excess of 300 percent.

A number of control tests were done for both program periods in order to pinpoint the cause of the expenditure misallocation. These included test runs for both periods using all of the original program data except the new Obligation Programs. In all cases, while results varied widely, the capital expenditure forecasts exceeded ADOT's projections. Expenditures were tracked within the 'EXPEND.WK1' input file, and appropriate totals identified. However, these totals did not appear in the final output produced by the model. It is therefore assumed that the misallocation occurs due to calculations made in the Fortran programs, which could not be tracked in a similar manner. While it is certainly plausible that user error is the cause of this disparity, the AzHCAS program documentation does not provide guidance in the event of such a problem.

The AzHCAS update instructions and reference files appear to have been written for use in the short term, i.e. for update periods within three years of the 1993 to 1997 program.[4] A likely explanation for current difficulties is that a recalibration of the model was intended for update periods farther into the future. Pending such a recalibration by the original consultants, the capital expenditures predicted by the AzHCAS can not be relied upon. Results of the AzHCAS (see page 19) have been restated to reflect the Obligation Program and Federal Aid projections made by ADOT for the forecast period.

FHWA State HCAS Model (FHCAS)

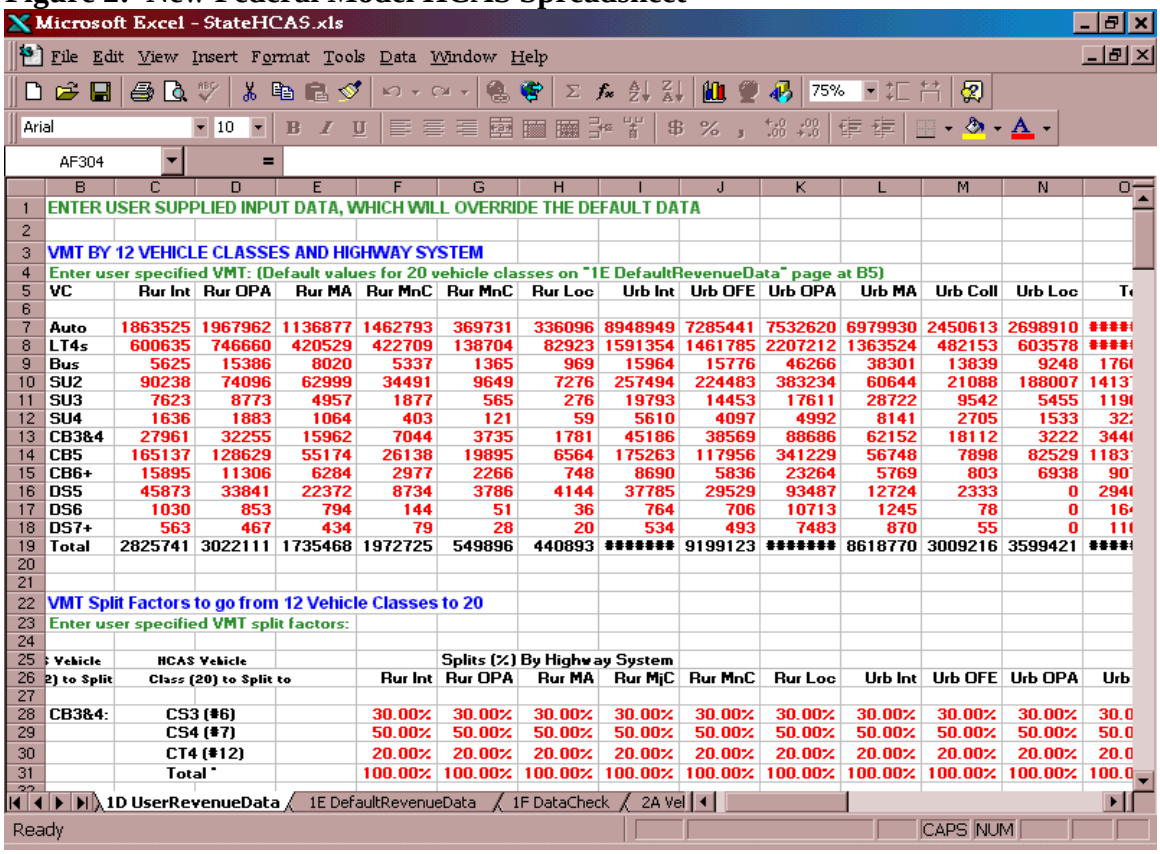
A new model for State Highway Cost Allocation is currently under development by consultants in conjunction with the Federal Highway Administration. This "Federal Model" provides an alternative for future cost allocation updates prepared by ADOT. Phase I of this study briefly compared the new FHCAS to the AzHCAS model currently employed by ADOT. It was concluded in Phase I of this project that the version of the FHCAS available to ADOT in 1999 was not suitable for performing a complete HCAS update. The Phase I comparison is included below, followed by a discussion of new developments in the FHCAS since the 1999 Update of the Arizona Highway Cost Allocation Study.

Summary of Phase I Findings

The new Federal Model is attractive in that its user interface has been simplified considerably from the AzHCAS model. Whereas the AzHCAS model must perform a series of file conversions prior to the actual allocation, the new FHCAS model has integrated all of these functions into one spreadsheet. External Fortran programs have been replaced with Visual Basic routines embedded in the spreadsheet of the FHCAS. The entire federal model consists of two files: the State HCAS spreadsheet, which contains all user input and the allocation programs, and Load Equivalency spreadsheet from which the allocation programs extract weight-related data. As an illustration of this approach, updates to VMT in both models are discussed in greater detail.

[4] Update procedures for the AzHCAS are expressly written for the 1994 to 1998 program period, with instructions to shift existing data one column (i.e. one year) to the left to accommodate new information.

Figure 2: New Federal Model HCAS Spreadsheet



Microsoft Excel - StateHCAS.xls

File Edit View Insert Format Tools Data Window Help

Arial 10 75%

AF304 =

	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	ENTER USER SUPPLIED INPUT DATA, WHICH WILL OVERRIDE THE DEFAULT DATA													
2														
3	VMT BY 12 VEHICLE CLASSES AND HIGHWAY SYSTEM													
4	Enter user specified VMT: (Default values for 20 vehicle classes on "1E DefaultRevenueData" page at B5)													
5	VC	Rur Int	Rur OPA	Rur MA	Rur MnC	Rur MnC	Rur Loc	Urb Int	Urb OFE	Urb OPA	Urb MA	Urb Coll	Urb Loc	T
6														
7	Auto	1863525	1967962	1136877	1462793	369731	336096	8948949	7285441	7532620	6979930	2450613	2698910	#####
8	LT4s	600635	746660	420529	422709	138704	82923	1591354	1461785	2207212	1363524	482153	603578	#####
9	Bus	5625	15386	8020	5337	1365	969	15964	15776	46266	38301	13839	9248	176
10	SU2	90238	74096	62999	34491	9649	7276	257494	224483	383234	60644	21088	188007	1413
11	SU3	7623	8773	4957	1877	565	276	19793	14453	17611	28722	9542	5455	119
12	SU4	1636	1883	1064	403	121	59	5610	4097	4992	8141	2705	1533	32
13	CB3&4	27961	32255	15962	7044	3735	1781	45186	38569	88686	62152	18112	3222	344
14	CB5	165137	128629	55174	26138	19895	6564	175263	117956	341229	56748	7898	82529	1183
15	CB6+	15895	11306	6284	2977	2266	748	8690	5836	23264	5769	803	6938	90
16	DS5	45873	33841	22372	8734	3786	4144	37785	29529	93487	12724	2333	0	294
17	DS6	1030	853	794	144	51	36	764	706	10713	1245	78	0	16
18	DS7+	563	467	434	79	28	20	534	493	7483	870	55	0	11
19	Total	2825741	3022111	1735468	1972725	549896	440893	#######	9199123	#######	8618770	3009216	3599421	#####
20														
21														
22	VMT Split Factors to go from 12 Vehicle Classes to 20													
23	Enter user specified VMT split factors:													
24														
25	Vehicle	HCAS Vehicle				Splits (%) By Highway System								
26	2) to Split	Class (20) to Split to			Rur Int	Rur OPA	Rur MA	Rur MjC	Rur MnC	Rur Loc	Urb Int	Urb OFE	Urb OPA	Urb
27														
28	CB3&4:	CS3 (#6)			30.00%	30.00%	30.00%	30.00%	30.00%	30.00%	30.00%	30.00%	30.00%	30.0
29		CS4 (#7)			50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.0
30		CT4 (#12)			20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.0
31		Total			100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.0

1D UserRevenueData | 1E DefaultRevenueData | 1F DataCheck | 2A Vel

Ready CAPS NUM

The graphic above illustrates the single-step update process of the FHCAS. VMT data for any period can be entered in the matrix shown below, and variable forecast rates and periods can be specified in the spreadsheet. Any user-specified growth rate may be used for the cost allocation and the data are all contained within a single file. A series of instructions provided in the spreadsheet shows users how to perform updates using default or user-specified data for a wide range of variables.

Limitations of the Federal Model

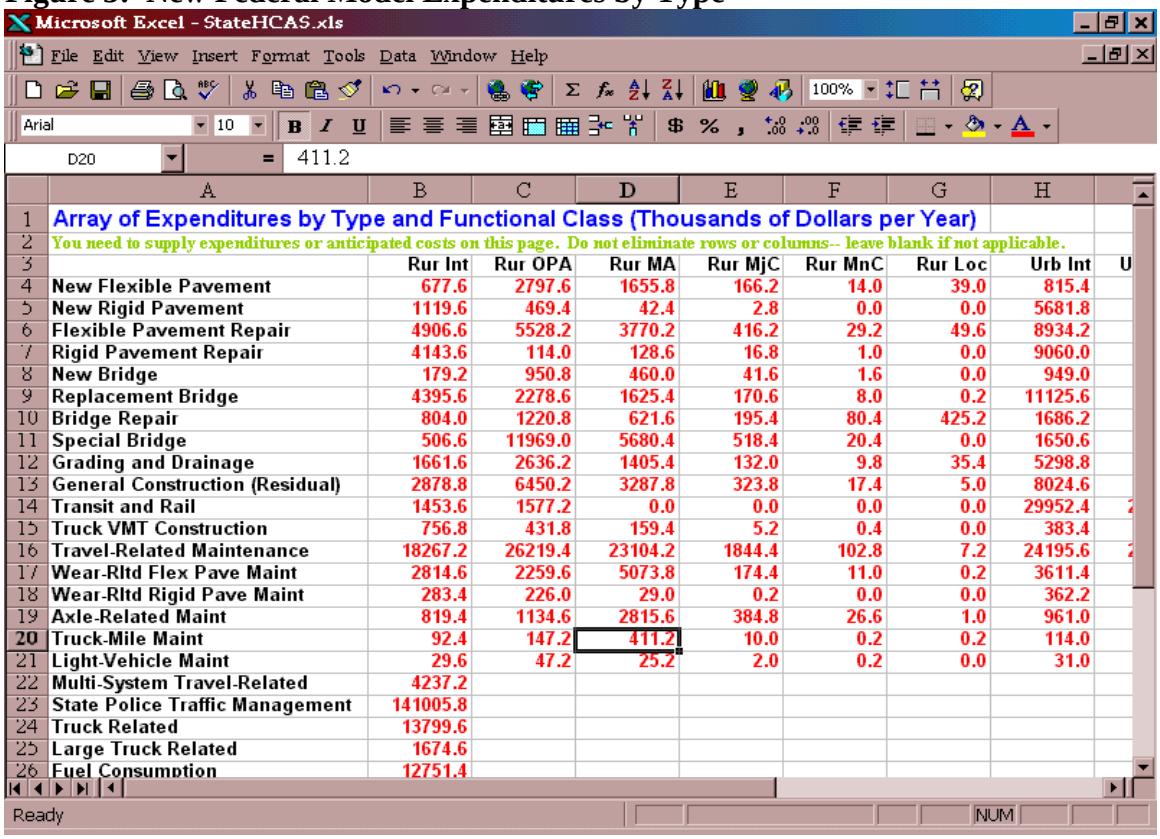
While the new federal cost allocation model would be a much simpler tool for future updates, it is important to note that there are also a number of serious limitations inherent in the test version received by ADOT.

One difficulty with the Federal Model as tested is that the model is not complete. Local revenue input functions and the allocation of costs for different levels of government are not available options in the version provided to ADOT. While this does not suggest that the Federal Model is flawed, it does mean that outputs of the version provided for this study can not be compared to the results of the AzHCAS model allocation. The first iteration of the ADOT model was run without changes to local expenditures. In subsequent runs, changes to local expenditures played a significant part in the assessment of cost responsibility. Because the available version Federal Model does not incorporate local-level data, it would only be possible to compare partial allocations based solely on state-level expenditures. Furthermore, as the level-of-government

tables are not available in the current version of the Federal Model, the state-level projections could be adversely affected by revenue or cost attributions internal to the model.

Perhaps the greatest impediments to the use of the federal model for Arizona cost allocation studies are the differences in construction expenditure classifications that exist between ADOT Obligation Programs and the inputs required for the federal model. The new model requires a breakdown of construction expenditures among different categories than those reported by ADOT. Furthermore, as shown below, the new model requires that expenditures be allocated among various functional classes of roadway – an added step that is not reflected in the ADOT Obligation Program. In order to achieve reliable results, conversion and reallocation of existing construction data would have to be done prior to using the new model.

Figure 3: New Federal Model Expenditures by Type



	Rur Int	Rur OPA	Rur MA	Rur MjC	Rur MnC	Rur Loc	Urb Int
New Flexible Pavement	677.6	2797.6	1655.8	166.2	14.0	39.0	815.4
New Rigid Pavement	1119.6	469.4	42.4	2.8	0.0	0.0	5681.8
Flexible Pavement Repair	4906.6	5528.2	3770.2	416.2	29.2	49.6	8934.2
Rigid Pavement Repair	4143.6	114.0	128.6	16.8	1.0	0.0	9060.0
New Bridge	179.2	950.8	460.0	41.6	1.6	0.0	949.0
Replacement Bridge	4395.6	2278.6	1625.4	170.6	8.0	0.2	11125.6
Bridge Repair	804.0	1220.8	621.6	195.4	80.4	425.2	1686.2
Special Bridge	506.6	11969.0	5680.4	518.4	20.4	0.0	1650.6
Grading and Drainage	1661.6	2636.2	1405.4	132.0	9.8	35.4	5298.8
General Construction (Residual)	2878.8	6450.2	3287.8	323.8	17.4	5.0	8024.6
Transit and Rail	1453.6	1577.2	0.0	0.0	0.0	0.0	29952.4
Truck VMT Construction	756.8	431.8	159.4	5.2	0.4	0.0	383.4
Travel-Related Maintenance	18267.2	26219.4	23104.2	1844.4	102.8	7.2	24195.6
Wear-Rltd Flex Pave Maint	2814.6	2259.6	5073.8	174.4	11.0	0.2	3611.4
Wear-Rltd Rigid Pave Maint	283.4	226.0	29.0	0.2	0.0	0.0	362.2
Axle-Related Maint	819.4	1134.6	2815.6	384.8	26.6	1.0	961.0
Truck-Mile Maint	92.4	147.2	411.2	10.0	0.2	0.2	114.0
Light-Vehicle Maint	29.6	47.2	25.2	2.0	0.2	0.0	31.0
Multi-System Travel-Related	4237.2						
State Police Traffic Management	141005.8						
Truck Related	13799.6						
Large Truck Related	1674.6						
Fuel Consumption	12751.4						

Recent Improvements to the FHCAS

The 1999 Update of the Arizona Cost Allocation Model determined that the FHCAS model could not be used effectively as currently available. An updated version that includes input and allocation options for local government expenditures would yield results that could be directly compared to the ADOT model in terms of methodology. As a preliminary step in creating a simpler means of cost allocation, a query was created to sort the ADOT Obligation Program by functional class of roadway. This query can also be used for allocating program expenditures in the FHCAS model. However, a means of allocating ADOT's Obligation Program among the new classes of project expenditures in the FHCAS has not been developed. Because the version of the FHCAS received does not include details or descriptions of the expenditure categories utilized, allocation of the ADOT Obligation Program to these expenditure classes would be arbitrary.

Since the completion of the 1999 AzHCAS Update, an updated version of the FHCAS has been distributed to state transportation departments for further testing and review. It should be noted that the version reviewed here was made available in July, 1999. A completed version was scheduled for distribution in late 1999, but has not been received. Several of the problems with the July, 1999 version were intended to be addressed in the completed model.

A number of problems remained with the updated (i.e. "current") version of the FHCAS:

1. The revenue control totals are forecast from base year control totals, whereas the preference of the Arizona Department of Transportation has been to use control totals established for the forecast period. However, projected totals can be effectively "controlled" by using the same amounts in the base period and setting the growth rate equal to zero.[5] The final version of the model may provide the option for states to specify forecast controls, but the option does not currently exist without "fooling" the model.
2. The expenditure inputs continue to require both functional class of roadway and highly detailed expenditure subcategories. While the first concern is addressed in Appendix B of this report, the second has yet to be addressed. The FHCAS developers have indicated that a conversion matrix for the various construction categories is to be provided with the final version of the model (Stowers, et. al., page 7). However, the current lack of such a tool makes the model impossible to test.
3. The current version of the FHCAS deals only with a limited scenario, comparing state expenditures to state revenues. Again, the final version of the model may be expanded to cover Federal and local revenues and expenditures within each state.

As in the previous study, the FHCAS *as provided* has not been determined to suit the needs of the Arizona Department of Transportation. The model is expected to be more useful in its final form, but has not been tested as such.

[5] Stowers, et. al., *State Highway Cost Allocation Study Spreadsheets: Description Of First Full Working Version 2.1 For Production Use By The States*, July, 1999 (page 11).

III. Simplified Model for Highway Cost Allocation (SMHCAS) Overview

An important element of the first phase of this study was the assessment of the Arizona HCAS model (AzHCAS) and the new "Federal" State HCAS model (FHCAS) to determine the usability of each. Cost allocation can be a useful tool for analysis of the equity of taxes and fees imposed on users of the highway system. However, the benefits of allocation must also be weighed against the cost of completing studies on a regular basis. Because the process can be a time-consuming endeavor, regular updates are more likely to occur when the process is simplified. Both the AzHCAS model and the new FHCAS model have significant drawbacks in terms of portability, user-friendliness, completeness and/or simplicity. For this reason, a simplified method for approximating cost responsibility was developed, under the assumption that system-wide expenditures could be reasonably attributed to vehicle classes based on two basic scenarios.

SMHCAS Revenue and Cost Allocation Methods

The Simplified Model for Highway Cost Allocation Studies (SMHCAS) differs from other highway cost allocation models primarily in its treatment of expenditures. Whereas revenues are distributed in similar ways by the FHCAS, AzHCAS and Simplified models, the distribution of cost responsibility in the SMHCAS is far less complicated than in the other two models. The SMHCAS allocation of expenditures is based on the following two premises:

1. Capital expenditures in urbanized areas are primarily the result of the need for additional *capacity*. Any construction on highway segments in an urbanized area will therefore be allocated according to an unadjusted share of highway usage (i.e. vehicle miles of travel). This method shares the rationale used for the allocation of "common" expenditures (e.g. signs, highway patrol, etc.) in the SMHCAS and other models, specifically that the *volume* of traffic on a given highway segment has the greatest impact on expenditures associated with that segment.
2. Capital expenditures on highway segments outside of urban areas are considered in terms of added *strength* (thickness) required for heavier vehicles. The share of VMT on these segments is therefore weighted in accordance with standardized equivalent single axle loads (ESALs) prior to allocation of cost responsibility. The only variables considered are VMT and ESAL factors. Incremental analysis of width and gross weight used in other models are not considered. Similarly, no attempt is made to discern the need for capacity versus strength on a segment-by-segment basis. All strength-driven capital expenditures are allocated according to ESAL-weighted VMT.

Very little engineering data are required for the SMHCAS allocation, which relies solely on shares of travel and accepted ESAL factors for a variety of vehicle configurations. As such, the SMHCAS should not be considered a scientific methodology for distribution of expenditures. The SMHCAS model was developed in order to reduce the burden of data collection and reporting on state highway agencies performing highway cost allocation studies, but is not intended to supplant the research performed by developers of other HCAS models. Treatment of various classes of revenues and expenditures in the SMHCAS are discussed in greater detail below.

Distribution of Revenues

Revenue data used for the SMHCAS were obtained from the ADOT Finance Department. The revenue forecasts used in the Simplified Model are the same "control totals" for the AzHCAS model as discussed in Appendix A. In the aggregate, there is expected to be no difference in total revenues for each revenue category between the AzHCAS and the Simplified Model. Federal fuel tax revenues were calculated based on state fuel tax projections, factored upward by the ratio of federal to state tax rates. Federal sales, use and tire taxes were increased by the compound annual growth rate of these revenues as measured in previous HCAS updates. As in the case of the AzHCAS model, the Simplified Model uses an average of annual revenues for the forecast period to make the allocation to vehicles and weight classes. The principal means of allocating each revenue source are shown in Table 3 below.

Table 3: Distribution of Revenues in the SMHCAS

Revenue Source	Primary Allocation Factor	Weighted?	Weighting Factors
Fuel taxes	VMT	Yes	Fuel efficiency
VLT	Historical distribution	Yes	Vehicle values
Registration fees	Registration counts	No	---
Weight & use fees	Registration counts	Yes	Relative magnitude
Federal Sales tax	Commercial registrations	Yes	Relative magnitude
Federal Tire tax	Commercial registrations	Yes	Tire configuration

Each of the following revenue categories is allocated by the SMHCAS to vehicle and weight classes based on different criteria. In general, the means of allocation follows the methods of the ADOT HCAS model. Fuel revenues are allocated based on VMT and relative fuel efficiency of vehicle classes and weight classes. The motor carrier tax is assigned to commercial vehicles based on the proportion of registrations in each category weighted by the differential in motor carrier fees assessed by weight. The vehicle license tax, registration fees and other miscellaneous taxes and fees require the use of external data sets, as well as a more detailed breakdown of the latter two categories in order to make an accurate allocation. Methods used to assign all fees to vehicle and weight classes are described in the following sections. Greater detail can be found in the *SMHCAS User Manual* in Appendix A of this report.

Fuel Taxes

The initial allocation of gasoline and diesel fuel taxes in the SMHCAS is made under the assumption that an insignificant portion of gasoline taxes would be paid by commercial vehicles (i.e. buses, single unit and combination trucks), and that a similarly small percentage of diesel fuel taxes would be attributable to autos and pick-ups. Based on this assumption, the allocation of fuel taxes is split between "commercial" and "non-commercial" vehicles, with the former being allocated 100 percent of diesel revenues and the latter being assigned 100 percent of gasoline revenues. This initial allocation is made solely for the sake of simplicity in working with registration and weight databases.

Gasoline taxes are allocated among autos and pick-ups using a combination of VMT and relative fuel efficiency.[6] Autos were assigned a default fuel efficiency of 22.2 miles per gallon and pick-ups were assigned an MPG of 15.1. Autos were thus rated as 48 percent more fuel-efficient than pick-ups. This differential was applied to the share of VMT of each vehicle class, and the final ratio was then used to allocate gasoline tax revenues to autos and pick-ups.[7]

Gasoline taxes were allocated by weight class based on a weighted average of the two vehicle class' fuel efficiencies and the proportion of "non-commercial" travel for each weight class. The weighted average fuel efficiency was 19.9 miles per gallon, applied to all non-commercial vehicles' share of each weight class. Virtually 100 percent of gasoline tax revenues were allocated to vehicles weighing less than 8,000 pounds, due to the proportional representation of this weight class in the registration and VMT data sets for autos and pick-ups.

Diesel taxes were distributed among buses, single unit and combination trucks using a similar approach. However, in this case, standardized fuel efficiencies had to be assigned based on MPG estimates for each weight class by vehicle type weighted by that weight class's proportion of VMT by vehicle type. This method resulted in a fuel efficiency of 8.8 MPG assigned to buses, and single unit and combination trucks were assigned fuel efficiencies of 8.3 MPG and 5.9 MPG respectively.

Diesel fuel revenues were allocated among weight classes based on the "commercial" VMT assigned to each weight class and configuration, factored by the MPG assigned to each combination. The heaviest weight class, made up mostly of combination trucks, was assigned the majority share of diesel fuel revenues (61.8 percent), based on the relatively poor fuel efficiency and high share of "commercial" VMT attributable to these vehicles.

Vehicle License Taxes

Because of the large amount of variance inherent in vehicle values (upon which the VLT is based), the distribution of VLT in the SMHACS is made among broad vehicle categories according to historical percentages of VLT attributable to these vehicle types. VLT collections for fiscal years 1992 to 1998 were obtained for autos (including motorcycles), pick-ups and vans, buses and commercial trucks (including trailers, which were broken out separately for further analysis). With the exception of commercial trucks, for which additional calculations were necessary in order to separate VLT by single unit and combination classes, the average percentage of total VLT collected that was attributable to a particular vehicle class from 1992 to 1998 is used as a baseline from which to distribute VLT for the forecast program periods. Averages for each vehicle type are adjusted upward or downward according to historical growth or decline over the base period.

[6] Fuel efficiency data were obtained from the updated ADOT HCAS data used in Phase I.

[7] Note that the ADOT HCAS results do not reflect a fuel efficiency differential between these two vehicle classes, despite reporting the MPG estimates listed above. The ADOT HCAS allocation of fuel taxes to these two vehicle classes appears nearly identical to their shares of VMT. Therefore results of the two models will differ substantially in allocation of the gasoline tax.

Autos and pick-ups are assigned shares of VLT based on the each vehicle class' share of the sum of their respective VLT attributions *and* on the share of registrations attributable to each. This adjustment is made in an effort to approximate growth in the volume of transactions as well as the value of each transaction, which is highest for pick-ups and vans in the base period and thus increases the share of these vehicles slightly in the final allocation.

In order to allocate the commercial share of VLT to single unit and combination trucks, scaled ratios of estimated vehicle prices are used based on inflation adjusted results of the original HCAS. These valuation ratios are used in a manner similar to the weight adjustment used to distribute motor carrier fees. The average price of single unit and combination trucks by registered weight is used to factor the number of registrations of each vehicle type by weight category. Ratios obtained via this method are used to distribute the amount of VLT assigned to "Commercial Trucks." VLT for "Commercial Trailers" is distributed among combination trucks only, under the assumption that "single unit" trucks should be excluded by definition.

From the distribution of VLT by vehicle class, allocation to various weight classes is made using the proportion of registrations in each weight class by vehicle type and then summing the results. Note that with the exception of commercial trucks, this method assumes uniform average values among vehicle classes, regardless of weight. However, in the case of pick-ups and autos, virtually all registrations are in the lightest category; and while buses are distributed across a variety of weight classes, their contribution to total VLT is minuscule. For these reasons, the scaling of vehicle valuations by weight is not considered necessary for distributing VLT for these vehicles.

Registration Fees

Registration fees are broken down a into sub-categories for this analysis according to the division of fees in the 1999 HURF forecast (ADOT Finance). For the purpose of this analysis, the "Registration" portion of these fees is considered common to all vehicles, distributed based on share of registrations and adjustments for reduced-fee and government vehicles. A similar assumption is made for the distribution of registration permits and penalties. "Weight" and "Apportioned" fees are assigned only to "commercial" vehicle classes (i.e. buses and trucks), based on a scaling of fees by weight similar to that used for motor carrier fees. "Weight" fees are scaled based on relative magnitude of the registration fee schedule, while "Apportioned" fees are scaled based on the schedule of Use Fees applicable to each weight class.

Weight and Use Fees

Motor carrier fees are assigned solely to single unit and combination trucks. These revenues are split among single unit and combination trucks according to a combination of relative magnitude of fees applicable to vehicles by registered weight and the proportion of "commercial" registrations by weight and vehicle type. Proportional distributions of motor carrier fees by relative magnitude are used to factor the distribution of registrations either upward or downward as follows: the "relative magnitude" factor is multiplied by the share of registrations for each vehicle type (single unit or combination) and weight class. All of these results are then scaled to 100 percent of the total motor carrier fee, and each scaled proportion is used to assign a

percentage of the motor carrier tax to a truck type and weight combination. Because combination trucks tend to have higher registered weights than single unit trucks, the majority of motor carrier fees are assigned to combination trucks, despite their relatively small share of commercial registrations. Similar results are obtained for weight classes, with the distribution of motor carrier fees skewed toward the heaviest weight class.

Other Taxes and Fees

Other taxes and fees allocated to vehicle and weight classes include title fees, operator licenses and special plates and permits. With the exception of "Oversize Permits" and "Use Fuel Permits," all of the are considered common fees and are distributed to vehicle classes and weight classes based on the respective share of total registrations attributed to each category. Oversize permits and use fuel permits are allocated among commercial vehicles only, using a matrix of commercial registrations derived from the proportional shares of all registrations.

Federal sales, use and tire taxes are applicable to commercial vehicles only. For the sake of simplicity, the distribution of these revenues is thus limited to single unit and combination trucks. Federal sales tax revenues are allocated among these vehicles using the same scale of relative valuation applied to the distribution of VLT, recalibrated to incorporate the added value of trailers in the case of combination trucks. Federal tire taxes are allocated among single unit and combination trucks based on the number of 1990 registrations and the estimated tire count for each vehicle configuration. For the sake of simplicity, all tires taxed are assumed to be the same size, though the federal tire tax is assessed at a higher rates for tires weighing more than 40 pounds.

Federal use taxes, applicable to vehicles registered at 55,000 pounds or more, consist of a base fee of $155 plus $22 for every thousand pounds over 55,000, up to a maximum charge of $550. Each weight class is assessed a scaled tax using the median weight within that class. For example, vehicles in the 70,000 to 75,000 pound weight class were assigned a default tax of $485, based on a median weight of 72,500 pounds. Default taxes for each weight class were then given allocation factors according to relative magnitude of the tax, which were multiplied by single unit and combination registrations and scaled to equal 100 percent.

Distribution of Cost Responsibility

Expenditure data are compiled in three categories: "Capacity-driven" expenditures, "Strength-driven" expenditures, and "Common" costs such as ADOT's overhead and operating expenses. Expenditure data from different levels of government are allocated to each category based on different methods, depending on the manner in which the source data are presented. The allocation methods for each category and data source are indicated in the following table.

Table 4: Allocation Methods by Level of Government and Type of Expenditure

Allocation Method	State Level [1.]	Local Levels [2.]	
		Metropolitan Areas [3.]	Counties
Capacity	Obligation Program Share (Urban)	Construction estimates for Cities & Towns; MAG and PAG expenditures	---
Strength	Obligation Program Share (Rural)	Maintenance (pavement)	Construction estimates for Counties; Maintenance (pavement)
Common	Overhead and Administration; Highway Patrol and Safety; Obligation Program Share	Administration and Safety; Interest on Debt; Road and Street Services; Maintenance (non-pavement)	Administration and Safety; Interest on Debt; Road and Street Services; Maintenance (non-pavement)

Notes:
1. Includes federally-funded portion of the state Obligation Program forecast.
2. Includes expenditures funded by transfers from state and federal sources.
3. Local Government reports for cities and towns, plus MAG and PAG regions.

Allocation Methods

Of the three methods for allocating cost responsibility, the means of distributing Capacity-driven and Common expenditures are most similar. Both types of expenditure are distributed among vehicle and weight classes according to share of VMT. However, capacity-driven expenditures are distributed according to *urban* VMT only, whereas common expenditures are distributed according to share of total VMT. This distinction is made in order to account for the distribution of system-wide common costs (e.g. highway signs and safety improvements) that pertain to travel on all state highways.

Strength-driven highway expenditures are allocated according to the share of rural VMT applicable to each vehicle or weight class, but are adjusted by equivalent single axle load (ESAL) factors for each configuration and weight class. While it is likely that some of these expenditures on rural segments are driven by the need for capacity (and that some urban segment expenditures are a function of added strength and width requirements), the adverse effect of axle loading has been shown to have a greater impact on the flexible pavements common on rural highways than on the rigid concrete of urban freeways (FHWA, 1995). Capacity and strength-driven expenditures are split according to this basic premise: that, in the aggregate, highways in urbanized areas are built primarily for capacity, and that the cost of construction on non-urban highway segments is primarily a function of vehicle weight.

Automobiles and pick-ups account for the majority of travel on both rural and urban systems. These vehicles can therefore be expected to receive the bulk of cost responsibility for capacity-driven and common expenditures, which are attributed based on VMT. However, while autos

and pick-ups also account for most of the VMT measured on non-urban segments, the share of strength-related expenditures attributed to these vehicle classes is greatly offset by their relatively small ESAL coefficients. Combination trucks are more highly represented on non-urban segments than most other vehicle types. The combination of higher ESAL factors and a proportionally greater share of rural VMT suggests combination trucks will bear the highest cost responsibility for construction and maintenance of highways outside of urbanized areas.

Various types of expenditure by level of government are indicated in Table 4. While federal funds are not specifically called out in the table, it is implied that expenditures funded with federal aid are included in the state and local expenditure sources. Federal funds allocated to a specific expenditure program are allocated according to the means of distributing the state and/or local funds for that particular program. For example, federal aid makes up a significant portion of the state Obligation Program. The sorted Obligation Program distributes federal funds to capacity, strength and common expenditure categories in the same way that state funds are distributed. Similarly, "State Aid to Local Governments" from the Highway User Revenue Fund (HURF) is distributed according to the share of local expenditures in each category, and not according to state level distributions such as the Obligation Program. The major expenditure categories allocated by the SMHCAS are discussed in greater detail in the following sections.

ADOT Five-year Obligation Program

Obligation Program expenditures are initially sorted by route number to identify common (system-wide) costs. Expenditures coded to "Route 999" are assumed to be common costs, and are therefore allocated to the Urban/Common category. "Route 999" expenditures include such system-wide costs as research and planning, contingency allowances, signage and safety funds. Once these common expenditures are sorted, the remaining capital improvements must be allocated according to the functional class of roadway for each route segment under construction/improvement.[8]

In the case of line items with split segments, expenditures are divided among class of roadway based upon the proportional length of each classified segment in the line item. For example, if expenditures in line item 1 cover miles 0 to 10 on Route A, and Route A miles 0 to 7 are classified as "rural" while miles 7 to 10 are classified as "urban," then 70% of line item 1 expenditures would be classified as "strength-driven" and 30% classified as "capacity-driven." While it is not likely that system improvements are evenly distributed in this manner for any given project, the assumption is made these distributions would tend to gravitate toward a length-weighted equivalence over the entire state highway system.

In the interest of simplicity, the only criteria for allocation of construction expenditures is whether the expenditure occurred for an urban or a rural highway segment. Urban segment expenditures are allocated based on the proportion of urban VMT attributable to a given vehicle class, which assumes that urban expenditures are primarily driven by the need for increased capacity on the highway system. This scenario has the highest impact on automobiles, which comprise the bulk of travel on all functional classes of roadway.

[8] The Obligation Program expenditures for 1999-2003 and 2000-2004 programs were sorted according to a multiple-step database query process. This process (and its limitations) are discussed in Appendix B.

In contrast, rural expenditures are assumed to be largely attributable to added strength required for flexible pavement construction and repair, climbing lanes and the like. It is therefore assumed that heavy-vehicle traffic had the greatest impact on rural costs. For this reason, cost responsibility for construction and maintenance on rural system segments is attributed based on VMT weighted by equivalent single axle loads (ESALs). ESAL ratios assign a far higher proportion of cost responsibility to heavier vehicle classes, which offset these vehicles' lower VMT.

Common costs such as signage and highway patrol expenses are also assigned based on VMT, *regardless* of highway segment classification. It is expected that these expenditures would have the most direct relationship to the amount of travel on a given roadway, and not to the type or weight of vehicles traveling a particular route. Again, this meant automobiles and pick-up trucks would bear the largest share of these expenses.

State Overhead and Administration

Common costs allocated to different vehicle classes include ADOT's Operating Program from the Discretionary Fund Analysis (e.g. administration, land and building improvements, etc.) and the interest on RARF and HURF bonds. Debt retirement is not included because the principal amount of these debt obligations has already been accounted for by including construction costs funded from bond proceeds. The annual average of state "common costs" for the forecast period is allocated in its entirety based on total VMT, under the assumption that the state operating program and debt service are common costs to be borne based upon frequency of system-wide road usage.

Common costs are thus allocated to vehicles based solely upon raw shares of VMT, with no consideration of weight-based responsibility. Note that the "common costs" included in the Discretionary Fund Operating Program include such expenditures as agency overhead and DPS transfers. These common costs do *not* include common expenditures associated with construction, such as planning and excavation. The latter are allocated as "Route 999" common costs as defined in the Obligation Program allocation methodology on page 16.

Regional Freeway Expenditures (MAG and PAG)

Freeway expenditures in Maricopa and Pima counties are considered construction program expenditures. However, unlike the balance of state and federally-funded projects in the Obligation Program, these regional expenditures are *not* allocated based on the Obligation Program split discussed above. Because the MAG and PAG programs specifically support regional freeways in urbanized areas, these expenditures are assigned to the capacity-driven cost allocation method in their entirety.[9]

[9] This method of allocating regional freeway expenditures assumes that capacity requirements, estimated based on peak-period VMT, are the primary impetus for system improvements in urbanized areas.

Other Local Expenditures

Ratios of county and city expenditures to total local expenditures are compiled from the Survey of Local Government Expenditures, as are proportional breakdowns of city and county expenditures by type of spending (e.g. maintenance, administration, etc.). These proportions are then applied to the average forecast "State Aid to Local Governments from the HURF" for the program period. The State Aid forecast is used as a control for local expenditures, which are then factored upward by the inverse of the State Aid ratio to reflect local spending funded by other sources.

Services and general administration costs are considered to be common costs allocated by VMT. In the case of capital outlays, county-level expenditures are allocated to the Strength category, whereas expenditures by municipalities are allocated to the Capacity category. These assignments are made under the assumption that the majority of county capital outlays are made outside of municipal jurisdictions and are therefore made to rural segments. Maintenance costs are split into pavement and non-pavement maintenance at both the county and municipality levels, based on estimates of statewide maintenance expenditures provided by the ADOT Maintenance Section.[10] Pavement-related maintenance costs are assumed to be the result of pavement wear more appropriately allocated to vehicles based on weight, while non-pavement maintenance costs are allocated as common costs according to VMT. Common and capacity-driven costs are allocated based on the proportion of VMT assigned to each vehicle class.

[10] The average statewide maintenance program for the past two fiscal periods is comprised of approximately 12.3 percent pavement costs and 87.7 percent non-pavement costs.

IV. Forecast Results: AzHCAS and SMHCAS, 1988 to 2004

Separate iterations of the SMHCAS were run for various forecast periods previously done using the AzHCAS model. As indicated in Section 2 (page 7), recent updates of the AzHCAS have produced cost responsibility estimates that exceed the sum of expenditures projected by ADOT for the program period. These cost responsibility estimates were revised downward based on the construction program totals in fiscal years 1999 to 2004. However, total expenditures forecast by the two models still differ by $70 million to $100 million annually for these fiscal years. This discrepancy is the result of alternate forecast methodologies for local government expenditures.[11]

Total estimated revenues and expenditures over a variety of program periods are shown for both the AzHCAS and the SMHCAS on pages 21 to 25. Totals for the AzHCAS model include the original cost responsibility estimates generated by the model, as well as recalibrated cost responsibility estimates based on known budgetary constraints for the 1999 to 2003 and 2000 to 2004 program periods. The overstatement of state-level expenditures in the AzHCAS occurred only in the construction program. State maintenance and overhead totals were therefore left unadjusted, while the construction program was recalculated to reflect the Obligation Program totals for each forecast period.[12] The same procedure could not be followed to restate federally-funded expenditures because the AzHCAS does not break federal aid into subcategories. Restated estimates of federal expenditures should therefore be considered with greater reservation.

It should be noted that rounding of figures and use of varying forecast methods between the two models will occasionally result in different totals, even for "control" figures. For example, total revenue projections for the forecast periods covering fiscal years 1999 to 2004 are, on average 0.4 percent lower in the SMHCAS than in the AzHCAS. However, on a larger scale, the variance in local expenditure estimates and the recalibration of cost responsibility for these periods results in an AzHCAS forecast that averages 5.1 percent less than the SMHCAS. While a 5.1 percent variation does not seem large, the result is an aggregate difference of approximately $350 million in the total cost responsibility forecast for 1988 to 2004.

Both the AzHCAS and the SMHCAS show the same overall trends in revenues and cost responsibility from 1988 to 2004. Underpayment by virtually all vehicle and weight classes in earlier program periods has been replaced by overpayment in the most recent forecasts, as growth in highway user revenues has caught up with the capital outlays from earlier periods. Cost allocation summaries by vehicle class and weight class for various forecast periods are discussed in greater detail in the following sections.

---

[11] Both models rely on data reported to the FHWA for itemization of local government expenditures. However, the SMHCAS also incorporates a more recent "Survey of Local Government Expenditures" for allocation of local spending by funding source. The final SMHCAS forecast is based on local spending as a percentage of state aid.

[12] Table 3 of the AzHCAS output includes subcategories such as construction, maintenance, and overhead. The "State Construction" totals were first converted to percentages attributed to each vehicle class. These percentages were then multiplied by the State Obligation Program totals, and the results used to replace the "State Construction" totals in Table 3. These were then added to the remaining subcategories. This procedure, while more complicated than a reallocation based on total share of all expenditures, keeps the distribution of "common costs" from skewing the reallocation of construction expenditures.

Revenue and Cost Responsibility Results by Vehicle Class

Both models project overpayment in the aggregate for the most recent program periods, 1999 to 2004. However, as shown in Tables 5 and 6, the majority share of this overpayment is borne by passenger vehicles (i.e. autos, pick-ups and SUVs). Projected revenue-to-cost-responsibility for automobiles averages[13] 112 percent in the SMHCAS forecast and 131 percent in the AzHCAS forecast from 1999 to 2004.[14] Pick-ups and SUVs are allocated an even higher share of revenues relative to cost responsibility. These vehicles' equity ratio averages 174 percent in the SMHCAS and 177 percent in the AzHCAS between 1999 and 2004. Some possible explanations for the persistence of overpayment by the pick-ups and SUVs vehicle class are the differential fuel economies between these vehicles and autos and the popularity of light trucks in Arizona.

From 1999 to 2004, the two forecasts are quite close for combination and single-unit trucks. Equity ratios for combination trucks, which represent the greatest source of commercial vehicle revenues and cost responsibility, average 109 percent in the AzHCAS and 108 percent in the SMHCAS from 1999 to 2004. Single unit trucks' equity ratios average 100 percent in the AzHCAS and 101 percent in the SMHCAS over the same period. In contrast, equity forecasts for buses demonstrate significantly more divergent results. The average equity forecast from 1999 to 2004 for buses is 102 percent in the AzHCAS and 121 percent in the SMHCAS.

Differences in equity forecasts tend to be more pronounced for buses in all periods measured. In contrast with the more recent update periods, the results for single-unit trucks vary by larger amounts in the 1988 to 1997 periods. In the case of buses and single-unit trucks, the AzHCAS projects much greater underpayment than the SMHCAS. Average AzHCAS equity ratios from 1988 to 1997 are 43 percent for buses and 58 percent for single-unit trucks. The SMHCAS projects respective ratios averaging 96 percent for buses and 83 percent for single-unit trucks.

The SMHCAS does not take into consideration any special tax status for buses and single-unit trucks, for which the AzHCAS model makes some provisions. The reduction in revenues attributed to these vehicles in the AzHCAS accounts for the majority of the equity discrepancies in the earlier forecast periods. However, the SMHCAS allocates a smaller share of revenues to single-unit trucks in the more recent forecasts. Thus it is likely that most of the disparity between shares allocated to these vehicles are the result of differential shares of variables such as proportional distributions of traffic and registrations.

[13] Simple averages between the two forecasts were calculated from the ratios in the tables above for illustrative purposes only. The figures above are not adjusted for magnitude. For a more detailed analysis, see the standardized equity comparisons on pages 35 to 37.

[14] The SMHCAS was updated using 1998 registration totals, while the AzHCAS relies on 1990 registrations. In the more recent period, registrations of pick-ups and SUVs have increased relative to passenger cars. This change results in a lower share of revenues for cars in the SMHCAS and correspondingly lower equity ratios.

Table 5: Cost Allocation Results by Vehicle Class, 2000 to 2004
(Dollars in Millions)

Vehicle Class	AzHCAS Model				SMHCAS Model		
	Revenue	Cost Resp.	Adj. Cost Resp.[15]	Ratio	Revenue	Cost Resp.	Ratio
Autos	$997.4	$1,204.9	$762.3	131%	$909.6	$797.8	114%
Pick-ups and SUVs	$444.8	$390.3	$250.0	178%	$587.8	$333.2	176%
Buses	$10.1	$17.7	$9.6	105%	$20.5	$16.1	127%
Single Unit Trucks	$186.7	$304.1	$180.8	103%	$120.7	$119.3	101%
Combination Trucks	$543.1	$973.6	$491.9	110%	$557.9	$541.8	103%
Totals	$2,182.1	$2,890.6	$1,694.6	129%	$2,196.4	$1,808.2	121%

Table 6: Cost Allocation Results by Vehicle Class, 1999 to 2003
(Dollars in Millions)

Vehicle Class	AzHCAS Model				SMHCAS Model		
	Revenue	Cost Resp.	Adj. Cost Resp.[13]	Ratio	Revenue	Cost Resp.	Ratio
Autos	$948.3	$787.9	$723.5	131%	$889.0	$807.4	110%
Pick-ups and SUVs	$423.2	$260.0	$239.2	177%	$537.8	$313.1	172%
Buses	$9.7	$11.0	$9.7	100%	$9.6	$8.3	116%
Single Unit Trucks	$177.2	$202.1	$181.8	97%	$116.9	$117.0	100%
Combination Trucks	$521.7	$563.4	$487.4	107%	$531.3	$470.4	113%
Totals	$2,080.1	$1,824.4	$1,641.5	127%	$2,084.6	$1,716.1	121%

Table 7: Cost Allocation Results by Vehicle Class, 1993 to 1997
(Dollars in Millions)

Vehicle Class	AzHCAS Model			SMHCAS Model		
	Revenue	Cost Resp.	Ratio	Revenue	Cost Resp.	Ratio
Autos	$564.80	$696.03	81%	$580.1	$603.6	96%
Pick-ups and SUVs	$335.20	$322.25	104%	$321.0	$296.2	108%
Buses	$5.60	$10.21	55%	$7.1	$6.7	106%
Single Unit Trucks	$57.10	$85.49	67%	$83.6	$87.6	95%
Combination Trucks	$365.70	$370.43	99%	$336.5	$339.7	99%
Totals	$1,328.40	$1,484.40	89%	$1,328.4	$1,333.9	100%

[15] Adjusted Cost Responsibility reflects a restatement of AzHCAS Construction Program expenditures for 1999 to 2003. Refer to page 19 for a discussion of the rationale and methods used to adjust these figures.

Table 8: Cost Allocation Results by Vehicle Class, 1988 to 1992
(Dollars in Millions)

Vehicle Class	AzHCAS Model			SMHCAS Model		
	Revenue	Cost Resp.	Ratio	Revenue	Cost Resp.	Ratio
Autos	$441.4	$737.7	60%	$435.7	$694.7	63%
Pick-ups and SUVs	$264.1	$326.4	81%	$274.2	$391.1	70%
Buses	$4.3	$10.7	40%	$6.7	$7.7	87%
Single Unit Trucks	$44.7	$93.0	48%	$70.3	$97.6	72%
Combination Trucks	$294.3	$444.5	66%	$262.0	$376.1	70%
Totals	$1,048.8	$1,612.3	65%	$1,048.9	$1,567.2	67%

Revenue and Cost Responsibility Results by Weight Class

As noted in the previous section, the differential in forecasts of revenues and cost responsibility is most pronounced for buses and single-unit trucks. The forecast results by weight class emphasize this disparity. Revenue, cost responsibility and equity results tend to be closest for the heaviest weight classes (vehicles registered above 60,000 pounds, primarily to combination trucks) among all forecast periods shown in Tables 9 to 12 below. A considerable amount of divergence is evident in all forecast periods for the lighter weight classes, with the greatest relative difference observed in intermediate weight classes (10,000 to 40,000 pounds) for most forecast periods. Much of this divergence appears to be the results of revenue distributions for weight classes above 10,000 pounds. In general, the amount of revenues allocated to the heaviest vehicles is lower in the SMHCAS. These revenues are allocated instead among the intermediate weight classes, heightening the disparity in equity ratios.

When revenues are aggregated across all forecast periods,[16] a clear pattern of distribution emerges. In every period, the amount of revenues allocated to the lightest weight class diverged by no more than 4 percent between the two models. The AzHCAS allocated over 20 percent *more* revenue to the heaviest weight class. The SMHCAS allocated an average of 18 percent more revenue to vehicles between 10,000 and 60,000 pounds. This redistribution from the heaviest to intermediate weight classes in the SMHCAS accounted for the majority of the revenue differential between the results of the two models.

Total costs allocated to various weight classes did not exhibit such a clearly defined difference. However, the overall pattern of distribution remains the same. In the aggregate, the lightest weight class accounts for roughly two-thirds of cost responsibility in both models, 65 percent in the AzHCAS and 69 percent in the SMHCAS. The heaviest vehicles make up the second largest share of cost responsibility, allocated 26 percent of total (adjusted) costs in the AzHCAS and 25 percent of costs in the SMHCAS for the aggregate forecast period. Both models project a growing share of cost responsibility allocated to the heaviest vehicles, averaging 23 percent to 25 percent of cost responsibility between 1988 and 1997, and 26 percent to 29 percent from 1999 to 2004.

The SMHCAS tends to allot a lower amount of cost responsibility to intermediate weight classes and a higher amount to the lightest weight class in all forecast periods. The greatest relative disparity in cost responsibility is observed in the 20,000 to 40,000 pound weight class in most forecast periods. A likely explanation is the special methodology for assigning bridge construction and maintenance costs, including highway overpasses, to single-unit trucks. The higher forecast of local government expenditures in the SMHCAS, which are primarily a "common cost," produces a larger cost responsibility for the lightest vehicles, similarly shifting cost responsibility from the intermediate weight classes.[17] Total forecasts of user revenues, cost responsibility and equity ratios by weight class are shown in Tables 9 to 12 below.

[16] Totals across all forecast periods use an average of the 1999 to 2003 and the 2000 to 2004 to account for the 1999 to 2004 period. This was done to avoid double-counting of years 2000 to 2003.

[17] See page 21 for a discussion of the variance in local government expenditure forecasts. Common costs are distributed based on share of traffic. Because the intermediate weight classes make up the smallest share of traffic, additional common costs will shifted responsibility from these vehicles to the lightest (i.e. passenger) vehicles.

Table 9: Cost Allocation Results by Weight Class, 2000 to 2004
(Dollars in Millions)

Weight Class	AzHCAS Model				SMHCAS Model		
	Revenue	Cost Resp.	Adj. Cost Resp.[13]	Ratio	Revenue	Cost Resp.	Ratio
0-10,000 lb.	$1,483.0	$1,654.5	$969.9	153%	$1,538.2	$1,157.2	133%
10,000-20,000 lb.	$45.7	$62.5	$36.6	125%	$47.5	$28.7	166%
20,000-40,000 lb.	$66.6	$104.0	$61.0	109%	$70.9	$43.4	163%
40,000-60,000 lb.	$66.9	$104.5	$61.3	109%	$66.0	$49.9	132%
60,000-75,000 lb.	$42.2	$54.9	$32.2	131%	$40.4	$31.3	129%
75,000 lb. +	$477.7	$910.3	$533.6	90%	$433.5	$497.7	87%
Total	$2,182.1	$2,890.6	$1,694.6	129%	$2,196.4	$1,808.2	121%

Table 10: Cost Allocation Results by Weight Class, 1999 to 2003
(Dollars in Millions)

Weight Class	AzHCAS Model				SMHCAS Model		
	Revenue	Cost Resp.	Adj. Cost Resp.[13]	Ratio	Revenue	Cost Resp.	Ratio
0-10,000 lb.	$1,410.0	$1,087.8	$978.8	144%	$1,464.9	$1,143.5	128%
10,000-20,000 lb.	$43.3	$41.9	$37.7	115%	$42.6	$23.9	178%
20,000-40,000 lb.	$63.5	$68.5	$61.6	103%	$62.0	$36.7	169%
40,000-60,000 lb.	$64.0	$64.7	$58.2	110%	$63.0	$47.7	132%
60,000-75,000 lb.	$40.4	$33.3	$30.0	135%	$38.0	$28.8	132%
75,000 lb. +	$458.9	$528.1	$475.2	97%	$414.1	$435.5	95%
Total	$2,080.1	$1,824.3	$1,641.5	127%	$2,084.6	$1,716.1	121%

Table 11: Cost Allocation Results by Weight Class, 1993 to 1997
(Dollars in Millions)

Weight Class	AzHCAS Model			SMHCAS Model		
	Revenue	Cost Resp.	Ratio	Revenue	Cost Resp.	Ratio
0-10,000 lb.	$909.2	$1,035.9	88%	$928.1	$916.9	101%
10,000-20,000 lb.	$13.0	$20.3	64%	$28.9	$17.7	163%
20,000-40,000 lb.	$25.0	$34.7	72%	$42.9	$26.0	165%
40,000-60,000 lb.	$31.3	$31.3	100%	$42.1	$30.7	137%
60,000-75,000 lb.	$23.3	$17.9	130%	$26.7	$19.5	137%
75,000 lb. +	$326.6	$344.3	95%	$259.7	$323.1	80%
Total	$1,328.4	$1,484.4	89%	$1,328.4	$1,333.9	100%

Table 12: Cost Allocation Results by Weight Class, 1988 to 1992
(Dollars in Millions)

Weight Class	AzHCAS Model			SMHCAS Model		
	Revenue	Cost Resp.	Ratio	Revenue	Cost Resp.	Ratio
0-10,000 lb.	$712.6	$1,083.8	66%	$731.2	$1,103.8	66%
10,000-20,000 lb.	$10.2	$22.3	46%	$23.4	$18.7	125%
20,000-40,000 lb.	$19.9	$37.6	53%	$35.3	$27.4	129%
40,000-60,000 lb.	$25.3	$35.3	72%	$34.1	$30.8	111%
60,000-75,000 lb.	$18.6	$20.8	90%	$21.2	$20.2	105%
75,000 lb. +	$262.2	$412.5	64%	$203.7	$366.4	56%
Total	$1,048.9	$1,612.3	65%	$1,048.9	$1,567.2	67%

V. Comparison of Forecast Results: AzHCAS and SMHCAS Models

Given the uncertainty surrounding the expenditure estimates provided by the AzHCAS, the comparison of results in this section focuses instead on the proportional shares of revenues and expenditures allocated among vehicle classes by each model. Each vehicle class has been assigned a percentage share of total revenues and total cost responsibility according to the output generated by each of the HCAS models. These percentages are then compared to assess the degree to which the SMHCAS methodology is capable of reproducing the distributions allocated by the AzHCAS.

It is assumed that the best measure of the SMHCAS Model's effectiveness is the degree to which the simplified methodology replicates the results of the more complicated ADOT HCAS. Thus, parity between the two models in terms of distributing certain *types* of revenues and expenditures serves as a better indicator of the success of the SMHCAS than comparison of raw totals. The following comparisons focus solely on the distribution of revenues and cost responsibility among vehicle and weight classes. Beginning on page 35, a detailed discussion of standardized equity ratios is included.

Comparison of Cost Responsibility by Vehicle Class

The percentages of total cost responsibility by vehicle class are shown in graphs prepared for each forecast period (refer to Figures 4, 5, 6 and 7). Results obtained through the SMHCAS are generally consistent with those obtained by the AzHCAS. The majority of shares of total cost responsibility by vehicle class projected by each model are consistent within three percentage points. The most notable exceptions to this observation occur in the share of cost allocation for pick-ups and single unit trucks, for both of which the results differ by roughly 4 percent in all forecast periods except 1993 to 1997.

The share of cost responsibility allocated to passenger autos remained relatively constant in the 1988 to 1997 program periods, forecast between 46 percent and 47 percent of total expenditures in the AzHCAS and roughly 45 percent for both periods forecast by the SMHCAS. However, the AzHCAS projects a slight decline in the share of cost responsibility attributed to passenger vehicles in the most recent forecast periods. Passenger autos are allocated roughly 44 percent of total cost responsibility from 1999 to 2004 in the AzHCAS. The share allocated to pick-ups and SUVs by the AzHCAS falls from approximately 21 percent in the earlier periods to about 15 percent from 1999 to 2004. In contrast, the SMHCAS projects a slight increase in passenger autos' share of total expenditures (between 44 percent and 47 percent from 1999 to 2004), and a smaller decline for pick-ups and SUVs (from roughly 23 percent from 1988 to 1997 to about 18 percent from 1999 to 2004). The greater share allocated to passenger vehicles by the SMHCAS is attributable to its higher forecast of local expenditures (primarily "common" costs) than the AzHCAS for the 1999 to 2004 periods.

The declining share of cost responsibility for passenger vehicles in the AzHCAS is matched by rising cost responsibility for single-unit and combination trucks. The AzHCAS projects the greatest relative increase in share of cost responsibility for single-unit trucks, from just under 6 percent between 1988 and 1997 to 11 percent from 1999 to 2003. Combination trucks' share of total cost responsibility forecast using the AzHCAS model rises from roughly 26 percent from 1988 to 1997 to 29 percent in the more recent periods.

The SMHCAS produces similar results for combination trucks, though slightly lower for most periods. According to the SMHCAS estimates. combination trucks' share of total cost responsibility rose from approximately 25 percent in the earlier periods to just under 29 percent in the more recent periods. However, the share of cost responsibility allocated to single-unit trucks by the SMHCAS does not follow the same pattern as that of the AzHCAS. Single-unit trucks are allocated a relatively constant share of cost responsibility across all forecast periods, estimated between 6 and 7 percent.

The differential share allocation to single-unit trucks is likely a function of construction program allocation. The AzHCAS allocates certain maintenance and construction categories (e.g. bridge construction) in such a way that the cost of these expenditures will be borne in greater magnitude by single-unit vehicles. For example, the gross weight loading of bridges will assign a greater impact to single-unit trucks, as these vehicles tend to be shorter than combination trucks (regardless of weight), and are therefore more likely to load a given set of points on a bridge with a greater share of the overall weight of the vehicle. Not only does the SMHCAS make no provisions for such a scenario, but bridge construction and maintenance in heavily trafficked (i.e. urbanized) areas is assigned by the SMHCAS according to share of VMT *only*. It is quite plausible that a number of bridge and overpass projects, particularly on urban freeways, could account for much of the disparity in shares of cost responsibility allocated to single-unit trucks.

Figure 4: Comparison of Cost Responsibility by Vehicle Class, 2000 to 2004

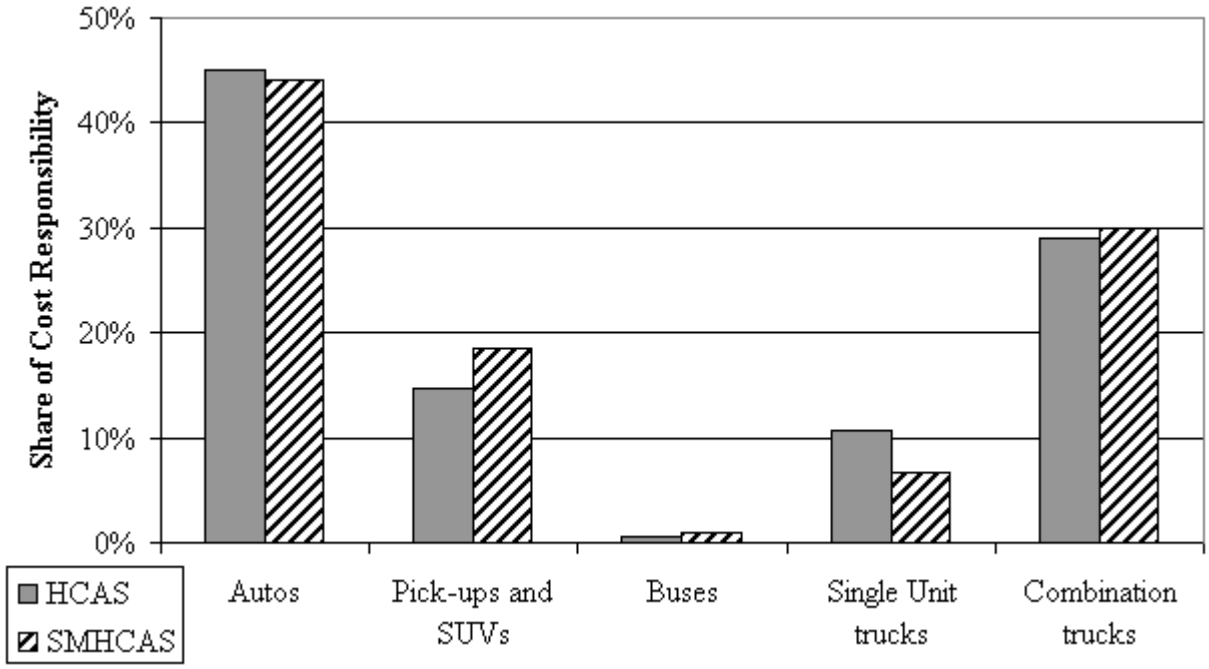


Figure 5: Comparison of Cost Responsibility by Vehicle Class, 1999 to 2003

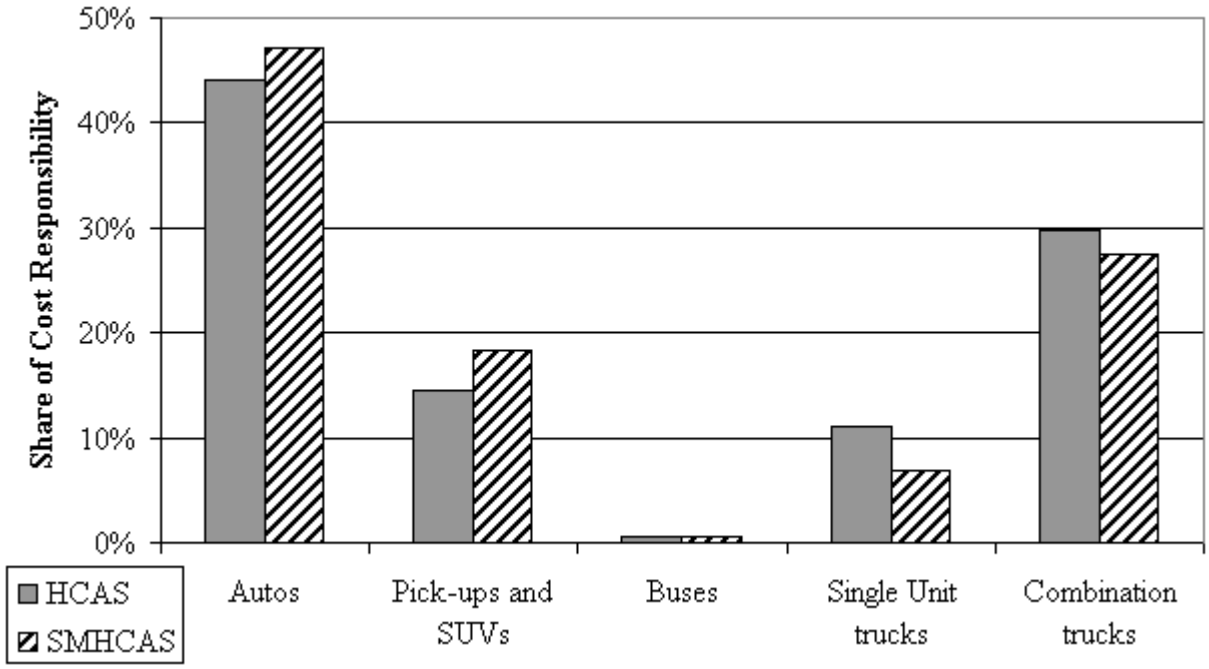


Figure 6: Comparison of Cost Responsibility by Vehicle Class, 1993 to 1997

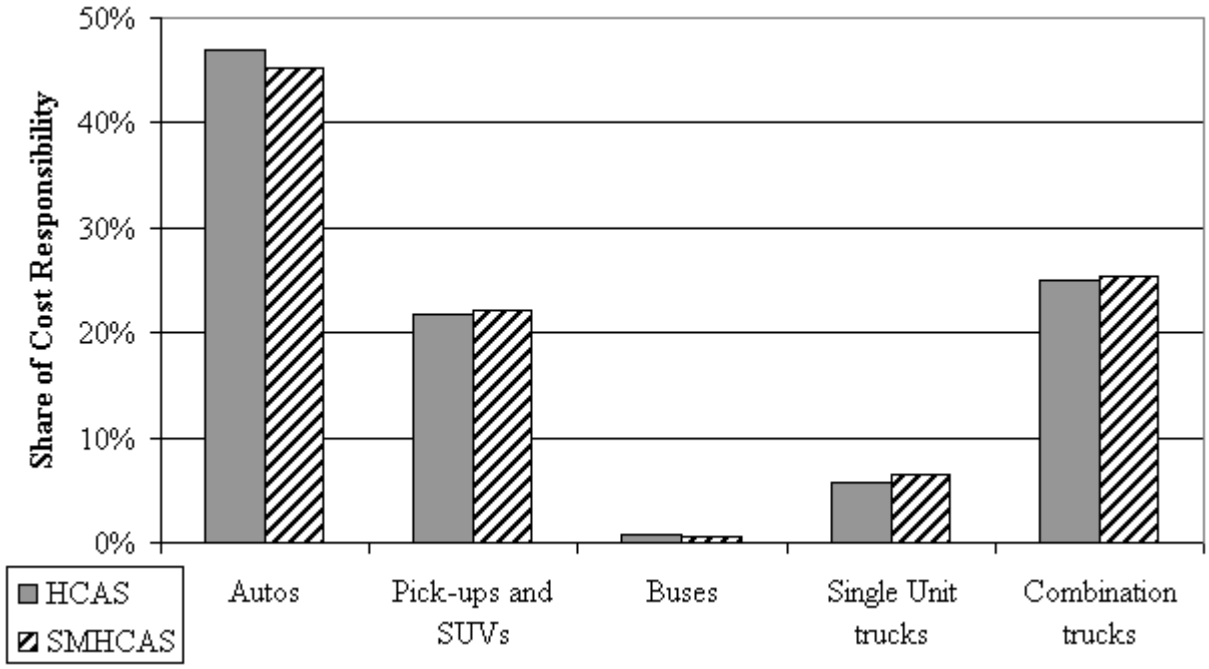
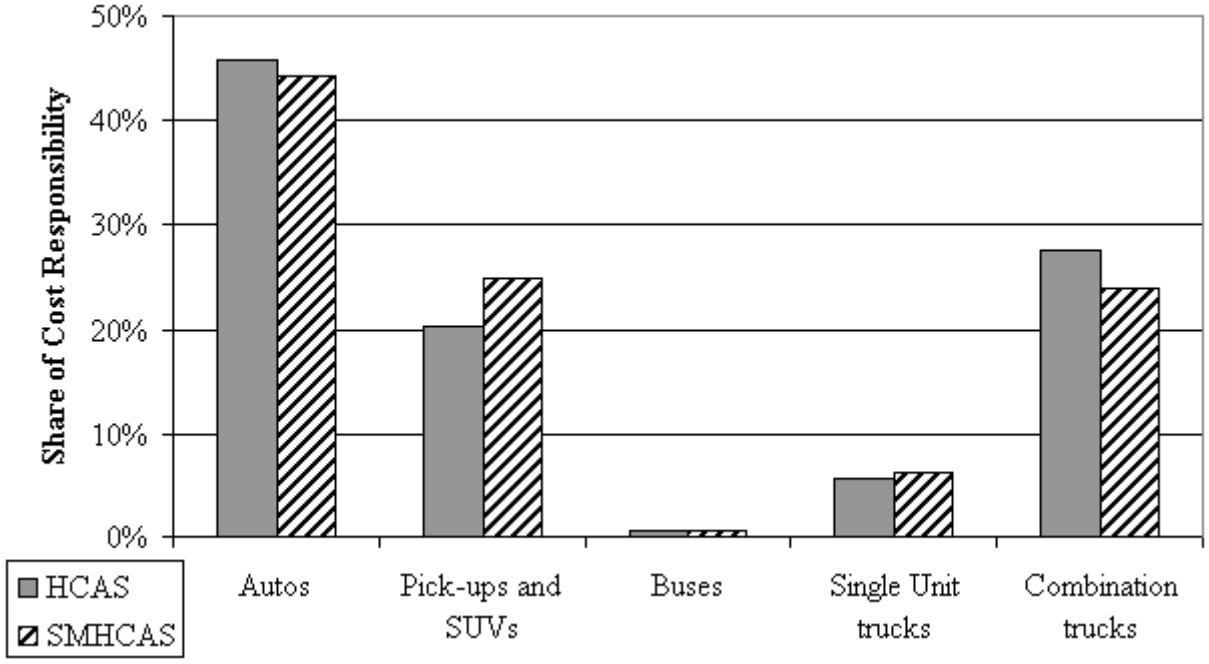


Figure 7: Comparison of Cost Responsibility by Vehicle Class, 1988 to 1992



Comparison of User Revenues by Vehicle Class

In comparison with the share of cost responsibility allocated by the two models, the SMHCAS estimates of user revenues attributable to each vehicle class tend exhibit slightly more divergence from the projections made by the AzHCAS. However, in all forecast periods measured, the gross share of revenues allocated to a given vehicle class by the SMHCAS differed from the results of the AzHCAS by no more than 6 percent.

For all forecast periods, both models attribute the greatest share of user revenues to passenger autos. In the AzHCAS model, this share rises from roughly 42 percent of user revenues in the earlier forecast periods to 46 percent in the more recent periods. The SMHCAS attributes a relatively constant share of revenues to autos, between 41 percent and 43 percent. Combination trucks make up the next largest revenue class for most forecast periods, comprising roughly 27 percent of highway user revenues from 1988 to 1997 and 25 percent of user revenues from 1999 to 2004. Pick-up trucks and sport utility vehicles are assigned the next largest share of user revenues, about 25 percent for the 1988 to 1997 periods and 23 percent from 1999 to 2003.

Recent period revenue forecasts for pick-ups and SUVs show greater divergence between the two model outputs than do results for autos and combination trucks, in terms of gross percentages of revenue share. Whereas the share of revenues allocated to pick-ups and SUVs in the 1988 to 1997 forecast periods differs by less than 1 percent between the two models, the divergence observed in the more recent forecasts is nearly 6 percent. This change can be attributed to the updated registration data used for the SMHCAS forecasts for these periods, in which pick-ups, vans and SUVs comprised a larger relative share of total registrations (see page 22 for further discussion).

Revenue share differences of approximately 3 percent are observed in the projections for single-unit and combination trucks for earlier forecast periods (1988 to 1997). This result is likely due to the shift from a mileage-based weight-distance motor carrier tax on commercial vehicles to a flat fee structure. The SMHCAS results for 1988 to 1997 use the flat-fee motor carrier tax in effect for later periods. Because the weight-distance tax was assessed according to a specific rate per mile during these forecast periods, the SMHCAS results for 1988 to 1997 should be viewed as less reliable. Nonetheless, the overall results forecast by the SMHCAS remain within acceptable levels of variance from the AzHCAS results.

Despite the varying methods used to allocate the motor carrier tax, both models portray a relatively constant share of revenues attributable to commercial vehicles between all forecast periods. As discussed in the previous section, the change in the commercial tax structure appears to have reduced the share of user revenues collected from heavier vehicles and shifted some of the tax burden to lighter vehicles. However, due to the relative magnitude of such fees as the vehicle license tax and fuel taxes, it does not appear that the change in the motor carrier tax has had a significant impact on the different models' overall share of user revenues attributed to a given vehicle class.

Figure 8: Comparison of User Revenues by Vehicle Class, 2000 to 2004

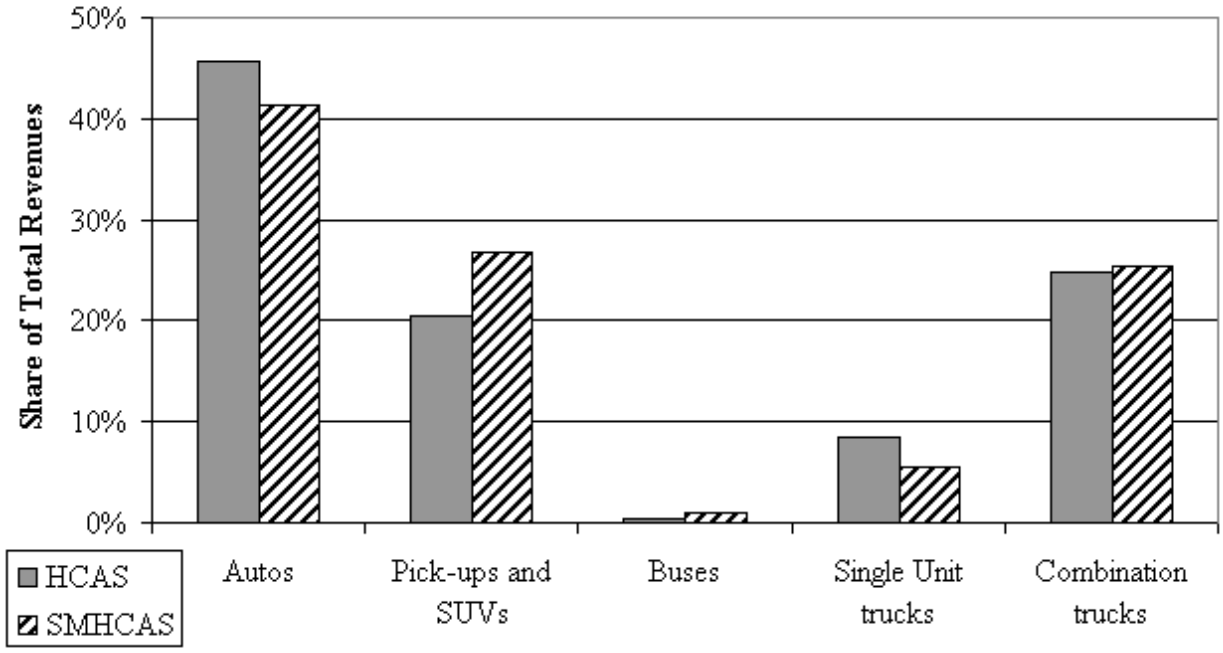


Figure 9: Comparison of User Revenues by Vehicle Class, 1999 to 2003

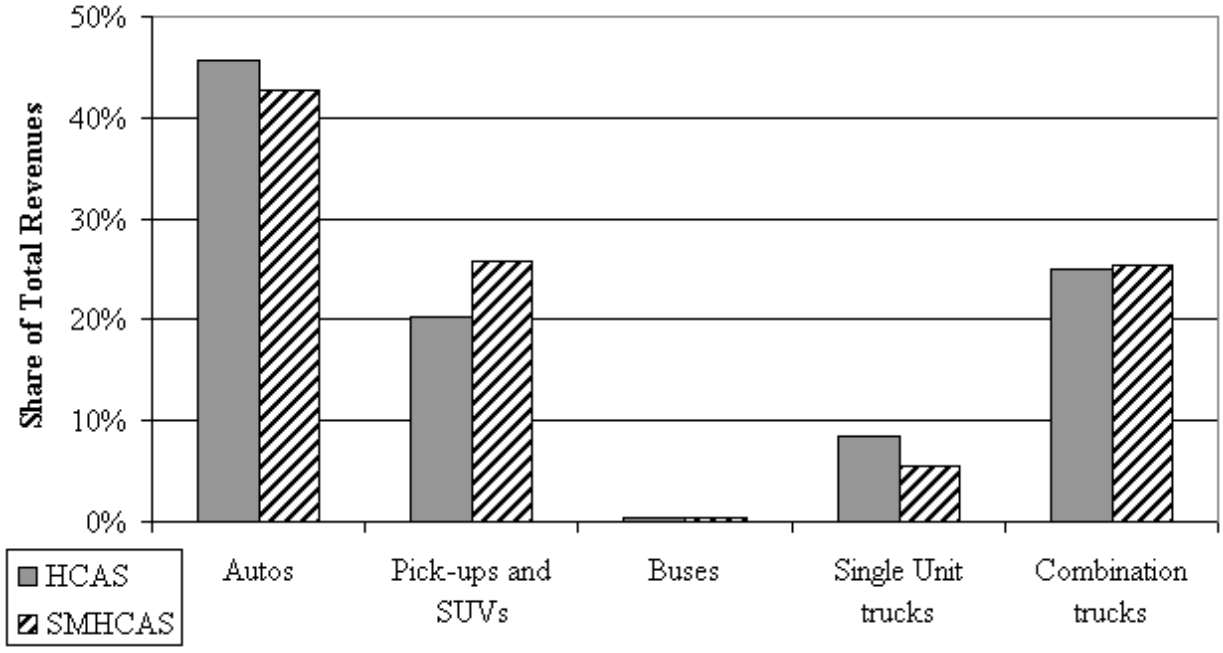


Figure 10: Comparison of User Revenues by Vehicle Class, 1993 to 1997

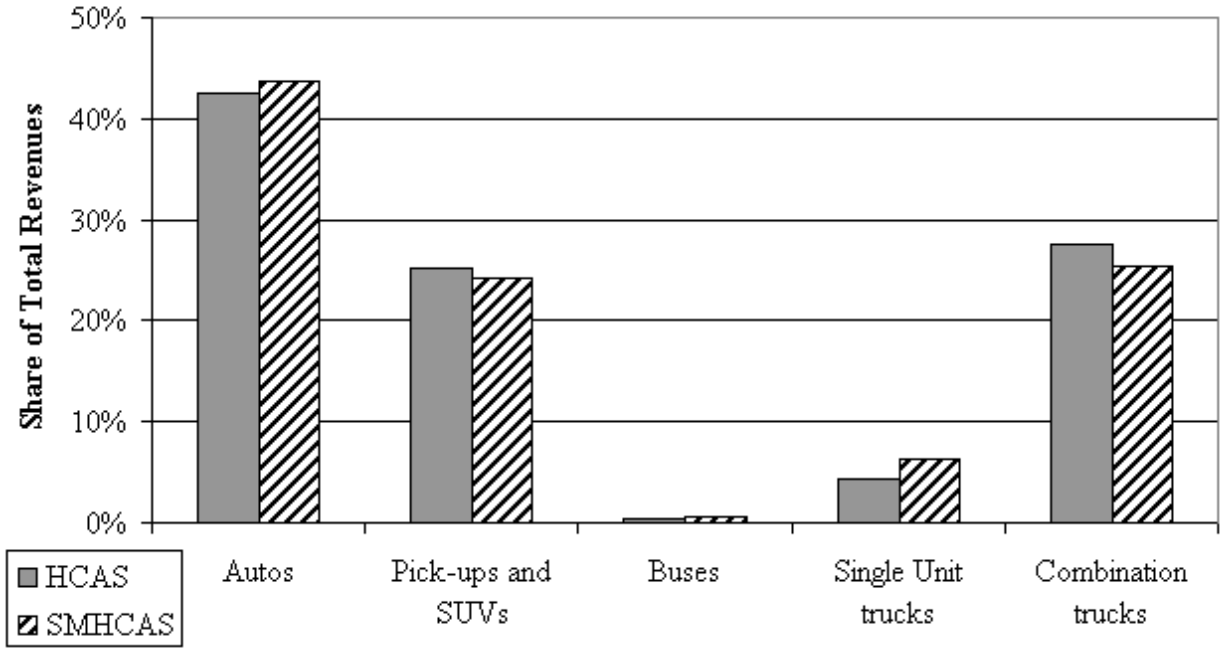
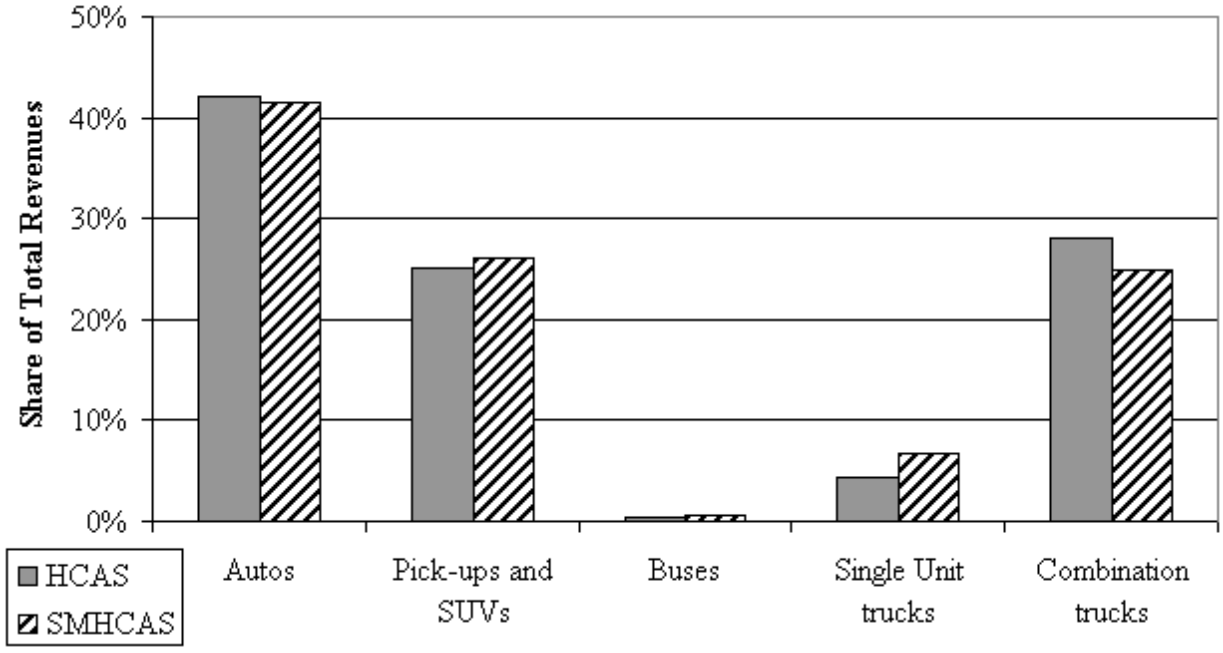


Figure 11: Comparison of User Revenues by Vehicle Class, 1988 to 1992



Comparison of Standardized Equity Ratios

Forecasts of equity ratios are dependent on the revenue and cost responsibility totals estimated for a given vehicle class. Because these totals vary among the AzHCAS and SMHCAS results due to rounding and different forecast rates for certain variables, the equity ratios have been standardized for comparison in much the same way that shares of revenues and cost responsibility were calculated for the preceding analyses. The equity ratios in Figures 12 to 15 have all been scaled to 100 percent, regardless of aggregate over- or under-payment in a given forecast period. It is important to note that these standardized ratios are *not* the actual equity ratios forecast by each model, and should therefore not be used to evaluate equity for a given program period. The standardized ratios should be used only to assess the accuracy of the SMHCAS in replicating estimates of equity produced by the AzHCAS.

For most vehicle classes, standardized equity ratio results indicate that both models present the same basic picture of highway user equity. When differences in total allocations of costs or revenues are controlled, standardized user equity for pick-ups and SUVs is consistent within 8 percent in the most recent forecast, a substantial improvement from the earliest forecast divergence of nearly 20 percent. However, results for passenger autos exhibit increased differences in standardized equity ratios, from just over 2 percent in the earliest forecast to nearly 8 percent in the most recent forecast. As discussed in previous sections, this change is largely due to differences in registration data used in the two models.

Standardized equity results for trucks are generally close, with combination trucks differing by less than 1 percent in the most recent forecast, and within 10 percent in all forecast periods. Results for single-unit trucks also show a trend toward greater similarity in equity forecasts. While the standardized equity ratios for single-unit trucks demonstrate considerable divergence in the earliest forecast period (34 percent from 1988 to 1992), this difference falls to 3 percent for the 2000 to 2004 forecast.

The trend toward greater similarity in standardized equity ratios for most vehicle classes in the more recent forecast periods suggests that the SMHCAS provides a reasonable estimate of equity, provided the same assumptions are used in both models. In other words, it is likely that most of the differences in the allocation of revenues and expenditures to single-unit and combination trucks stem from the differences in allocating construction program expenditures and motor carrier fees in the 1988 to 1997 forecast periods. Similarly, the change in relative share of registrations between autos and pick-ups and SUVs in recent iterations of the SMHCAS accounts for the divergence of equity ratios for autos in the most recent forecasts.[18] However, the equity ratios observed for buses in the SMHCAS results remain significantly different from the AzHCAS ratios in all forecast periods. While the results for buses have also improved from earlier to later forecast periods, the persistence of a relatively high magnitude differential suggests that the SMHCAS may not accurately forecast the share of revenues attributable to buses.

[18] Refer to revenue variance by vehicle and weight classes in Table 13 of the following section. Despite the relatively high variance in revenue attributions to autos, the low variance by weight class indicates that auto revenues have simply been shifted to pick-ups and SUVs. Overall results between the two models are very close for these "passenger vehicles" (i.e. approximately 99 percent of the lightest weight class).

Figure 12: Comparison of Adjusted Equity Ratios by Vehicle Class, 2000 to 2004

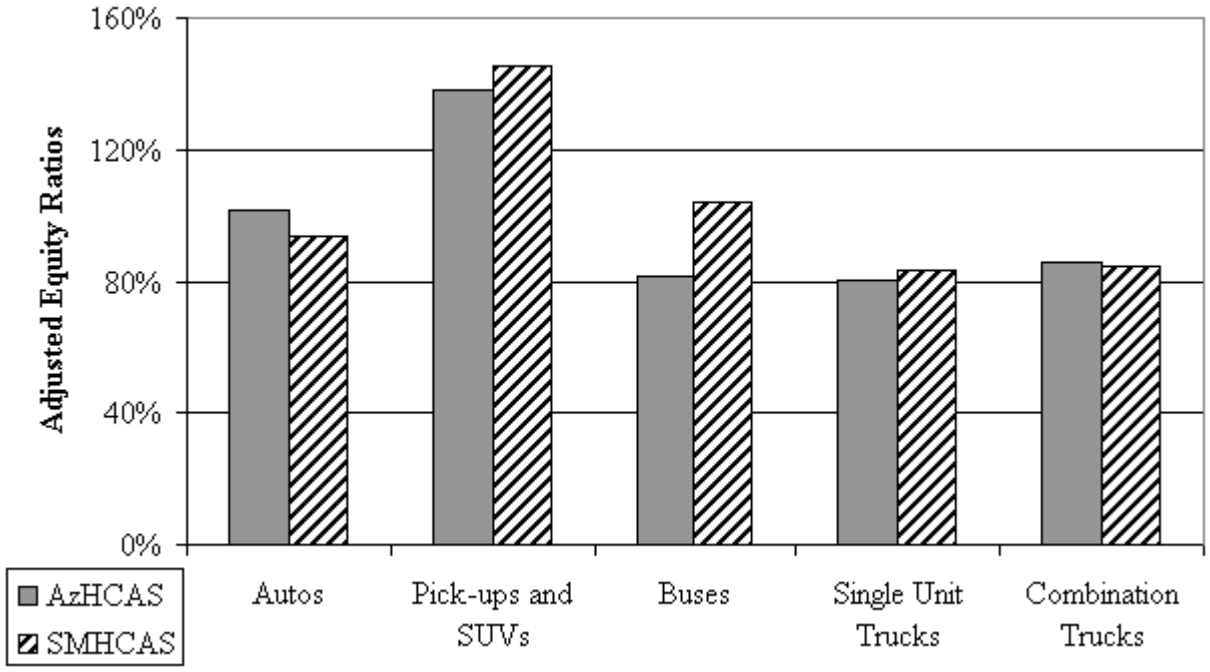


Figure 13: Comparison of Adjusted Equity Ratios by Vehicle Class, 1999 to 2003

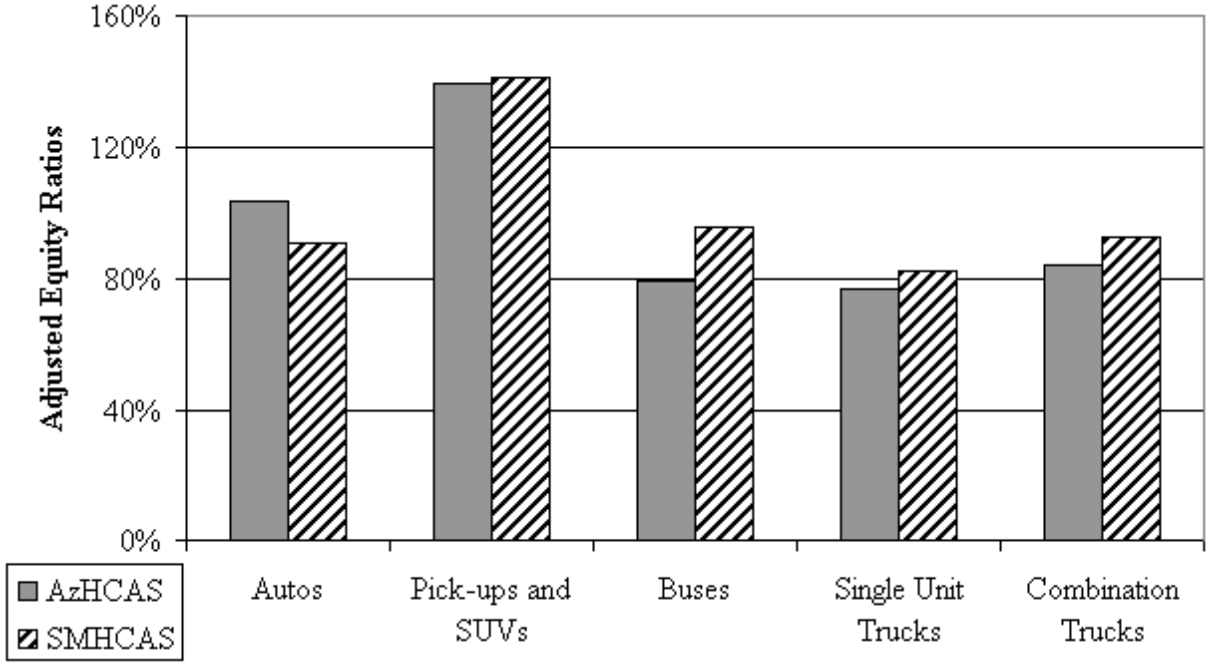


Figure 14: Comparison of Adjusted Equity Ratios by Vehicle Class, 1993 to 1997

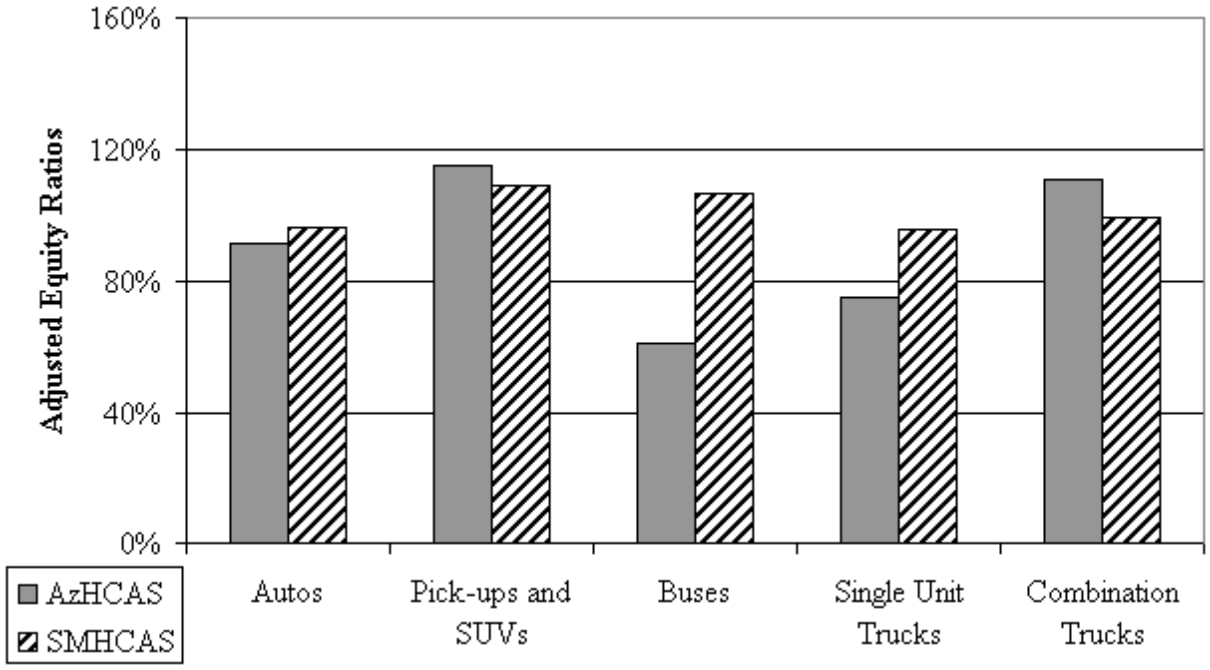
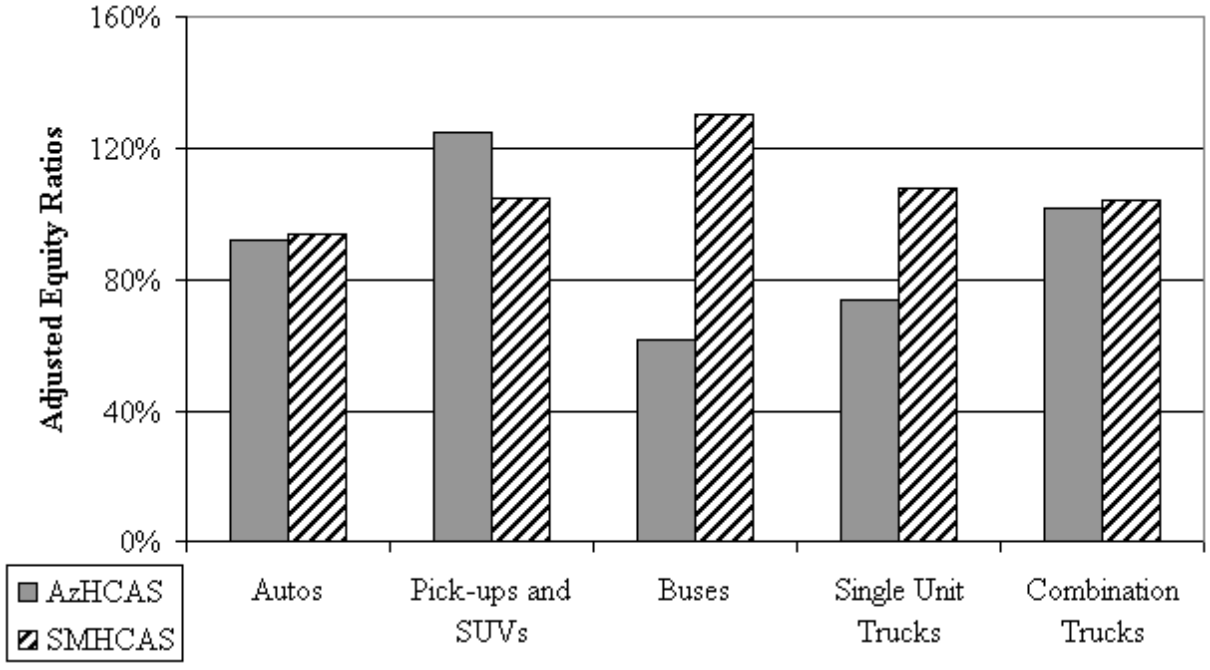


Figure 15: Comparison of Adjusted Equity Ratios by Vehicle Class, 1988 to 1992



VI. Conclusions and Recommendations

The SMHCAS provides an easy to use, efficient means of performing highway cost allocation studies in Arizona. The model is portable, largely self-explanatory, and can accommodate data from other state and local governments with limited modification. However, the user-friendliness of the SMHCAS notwithstanding, the true test of the model's effectiveness is its ability to replicate the results of the Arizona HCAS model and other similarly complicated methodologies.

As indicated in Table 13, the SMHCAS provides forecasts of user revenues and cost responsibility that are similar to the estimates made by the AzHCAS model. With a few exceptions, forecast totals by vehicle class for the 1988 to 2004 fiscal period for both the AzHCAS model and the SMHCAS tell the same basic story. In the aggregate, lighter vehicles (i.e. autos, pick-ups and SUVs) are paying an amount approximately equal to their cost responsibility, with aggregate overpayment by pick-ups and SUVs compensating for aggregate underpayment by autos. Heavier vehicles (single-unit and combination trucks) are paying less than their cost responsibility. The greatest discrepancy in forecast results occurs for buses, which as a class comprise less than 1 percent of user revenues and cost responsibility. The SMHCAS projects *over*payment of highway user revenues by buses, whereas the ADOT HCAS model forecasts *under*payment by this vehicle class.

Table 13: Cumulative Cost Allocation Results by Vehicle Class, 1988 to 2004
(Dollars in Millions)

Vehicle Class	AzHCAS Model			SMHCAS Model		
	Revenue	Cost Resp.[1.]	Ratio	Revenue	Cost Resp.	Ratio
Autos	$11,624.68	$12,335.84	94%	$11,209.45	$12,012.41	93%
Pick-ups and SUVs	$5,979.51	$4,991.38	120%	$6,782.10	$5,680.32	119%
Buses	$116.57	$172.38	68%	$167.60	$152.75	110%
Single Unit Trucks	$1,718.11	$2,113.90	81%	$1,582.55	$1,736.93	91%
Combination Trucks	$6,937.99	$7,441.29	93%	$6,693.90	$7,020.55	95%
Totals	$26,376.87	$27,054.79	97%	$26,435.60	$26,602.96	99%

Note: 1. Totals reflect adjustment for construction program expenditures discussed on pages 6 and 19.

Fuel taxes are the greatest influence on over-allocation to buses in the 2000 to 2004 period. The most persistent over-allocation occurs in the miscellaneous revenue categories, for which the amount attributed to buses by the SMHCAS exceeds the amount forecast by the AzHCAS in all fiscal periods. Other revenue trends include the relative under-allocation of state fuel tax revenues to combination trucks and over-allocation of fuel revenues to pick-ups/SUVs. The same patterns are observed for allocation of federal revenues, which are comprised nearly entirely of fuel taxes. This divergence may be the result of fuel economy estimates included in the SMHCAS or in different forecasts of VMT made in each model. The latter scenario is more likely to have the greatest impact on results for pick-ups and SUVs, for which the SMHCAS consistently allocates a greater share of VMT.

Variance estimates comparing the two models' allocations of user revenues and cost responsibility by vehicle class suggest that the SMHCAS is reasonably effective in duplicating the share allocations made by the AzHCAS. Variances for each vehicle and weight class were calculated for each forecast period by weighting the divergence from a 100 percent match by the proportional share of revenues or cost responsibility attributable to that class. These class variances were then added together to reflect the overall variance between the two models' allocations.[19] Most variance estimates are below 15 percent, indicating that the SMHCAS captures at least 85 percent of the share results forecast by the AzHCAS. In general, the variance results indicate that the SMHCAS provides a more reliable estimation of equity (relative to the AzHCAS results) for vehicle classes than for weight classes. However, when all program periods are considered in the aggregate, the SMHCAS captures more than 92 percent of AzHCAS results.

Table 14: Overall Share Variance[1.] in Forecast Results

Forecast Period	Results by Vehicle Class			Results by Weight Class		
	Revenues	Cost Resp.	Equity	Revenues	Cost Resp.	Equity
1988-92	7.9%	10.6%	10.2%	12.1%	6.3%	10.9%
1993-97	6.9%	3.7%	12.2%	10.9%	3.0%	20.4%
1999-04	13.4%	9.4%	7.2%	4.6%	13.4%	11.1%
Aggregate	6.8%	6.0%	2.3%	8.1%	7.7%	6.4%

Note: 1. Overall variance reflects the summation of variances for each vehicle or weight class, weighted according to relative magnitude of revenues and cost responsibility.

If either the Federal Model or the ADOT model are to be used in the future, greater coordination of construction program reporting with the reporting format for these models should be a priority. This could be accomplished through an automated sorting system (refer to Appendix B of this report for a sample methodology) or through a reclassification of the construction program categories. However, in light of the fact that two of the three spreadsheets required for updating the current AzHCAS model are no longer available to ADOT, the functionality of the current model is impeded by a high risk of error inherent in the multiple-step update process. While the Federal Model might be a more efficient and user-friendly interface for conducting future studies, it is not usable as provided.

The SMHCAS provides a useful tool for estimation of equity that can be updated with fewer steps than those required for the AzHCAS update. Furthermore, while some degree of variance exists between the results produced by the Simplified Model and the ADOT HCAS for specific vehicle or weight classes and among different weight classes, the variation tends to be concentrated in the least consequential weight classes (from the standpoint of both revenue generation and cost responsibility). In the aggregate, ratios of revenue to cost responsibility produced by the SMHCAS are similar to the results of the AzHCAS, with the exception of recurring overpayment attributed to buses in the SMHCAS.

[19] Divergence from 100 percent was calculated using the absolute value of over- or under-allocation. All variances calculated were therefore positive, and do not cancel each other out. Equity variances reflect the overall share of revenues *and* cost responsibility attributed to a vehicle or weight class.

Not only does the SMHCAS provide a reasonable approximation of the results of the AzHCAS model with fewer steps and enhanced portability, the SMHCAS is also more accessible for future updates and changes to such variables as tax rates, motor carrier fee structures, and construction program reporting. The SMHCAS is contained within a single Excel spreadsheet workbook that fits on a standard 3½-inch floppy disk. All equations and calculations are visible to the operator, and can be modified to suit future changes in spending or taxation. This is an important advantage over the current AzHCAS model, in which much of the allocation of costs and revenues is contained within the FORTRAN programs and thus far less accessible to the average user.

The SMHCAS is most effective for painting a "broad picture" of revenues and cost responsibility. However, it is recommended that certain data sets be updated prior to use in evaluating highly specific policy changes. The following updates will further enhance the reliability of SMHCAS outputs for future updates:

1. Inclusion of local expenditure subtotals for multiple years in worksheet 'LOCAL ADJ'. While the local expenditure forecast is made using historical shares for a six-year period, the expenditure category subtotals are calculated using only the most recent Survey of Local Government Expenditures. Subtotaling the Survey of Local Government Expenditures for three or more fiscal years would enhance the reliability of the SMHCAS cost responsibility allocation.
2. The vehicle registration tables have been updated to reflect 1998 totals, but are still distributed among the various weight classes according to the same ratios from calendar year 1990 used in the AzHCAS. Users of both models would benefit from conversion of more recent registration data to weight classes to capture changing vehicle characteristics and registration patterns.
3. Additional VMT data collected for the SMHCAS would "smooth" variability in traffic distributions. While the model's internal growth constraints serve to limit this variability, further refinement of share totals by vehicle class, weight and configuration could be achieved through the inclusion of additional HPMS data.

The SMHCAS provides ADOT and third-party researchers with a cost effective tool that makes the allocation of revenues and expenditures an easier and far less time-consuming process. While some "fine tuning" of the SMHCAS may be useful for redistributing the share of revenues attributed to buses and single-unit trucks, the model "as-is" provides a reasonable allocation of revenue-to-cost responsibility for various vehicle and weight classes that is both theoretically justifiable and far more user-friendly than the current ADOT HCAS model. The SMHCAS can be easily modified for more complex or simpler attribution operations, making regular updates far more likely, and is therefore recommended for use on a regular basis as a tool for evaluation of broad policy options.

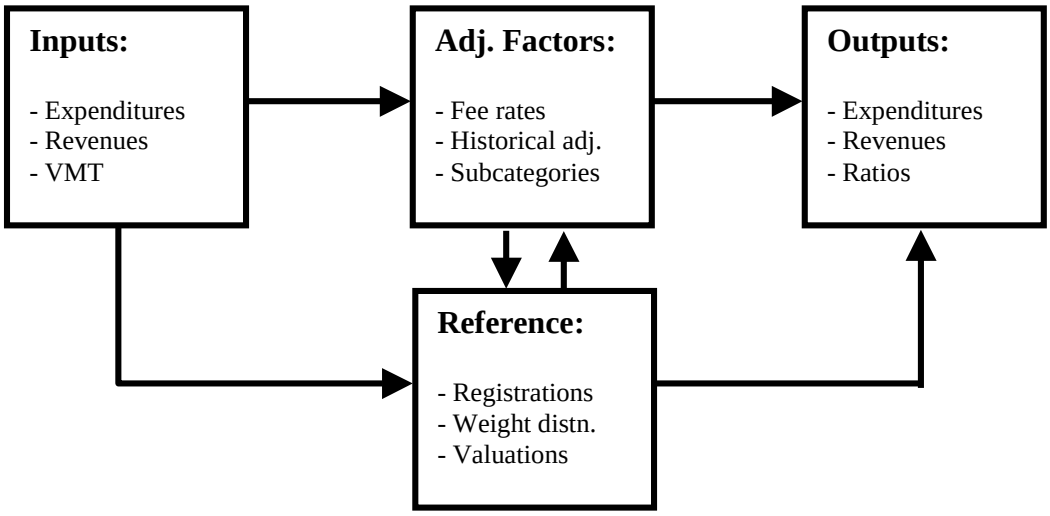
Appendix A: SMHCAS User Manual

This document is intended for use with the Simplified Model for Highway Cost Allocation (SMHCAS) designed for the Arizona Department of Transportation in 1999. The following sections provide an outline and overview of the components of the model, instructions for completing new cost allocation updates, and detailed descriptions of each of the worksheets contained within the model. Supporting data containing formulas and cell references in the SMHCAS worksheets can be found in Appendix C of this report.

SMHCAS Overview

The outline below provides an overview of the various worksheets contained in the SMHCAS. Worksheets are grouped according to functional categories: Inputs, Adjustment Factors, Reference files and Outputs. Depending upon the expenditure or revenue category being allocated, inputs are filtered through a series of worksheet matrices. As indicated in the diagram below, the allocation of various inputs can be a function of adjustment factor(s), historical reference(s), or a combination of both.

Figure 16: SMHCAS Flowchart



Some outputs are produced via a simple allocation by VMT (e.g. ADOT Overhead expenses), and are thus allocated according to a single matrix in the "Reference" section. Other outputs are considerably more complicated, requiring a series of calculations between references and adjustment factors. For example, the allocation of the vehicle license tax (VLT) requires a broad adjustment based on historical shares of VLT by vehicle class. This general pattern is then used to further divide VLT revenues by weight class according to the distribution of vehicle registrations. Finally, a projected allocation of VLT is made based on average rates of growth in historical VLT collections by vehicle class.

The following outline provides a brief overview of the components of the SMHCAS in a "Table of Contents" format. Each sheet name is contained within single quotations (e.g. 'REG') and followed by statement of the worksheet contents and references to other worksheets to which the

subject sheet is linked. A page number reference for each worksheet directs the user to the section of this document that contains illustrations and detailed descriptions of each of the component sheets in the model. Most worksheets also contain "comment" notations for specific cells, which may be accessed by simply holding the mouse pointer over the commented cell.

I. Inputs

- **'EXP IN'** (page 46): Input state Obligation Program, Discretionary Fund Analysis, Interest Payments and HURF Distributions.
- **'REV IN'** (page 48): Input revenues from HURF Forecast, federal and state fuel tax rates, and VLT distribution ratios.
- **'HPMS IN'** (page 50): Input VMT by roadway and vehicle class for 3 base years or periods.

II. Adjustment Factors

- **'VLT ADJ'** (page 52): Historical shares and growth rates of VLT by vehicle class from ADOT database MV-620-280-8. Used in conjunction with 'TRK VAL' to allocate program period VLT.
- **'FUEL ADJ'** (page 53): Allocation factors for distribution of fuel tax revenues according to fuel efficiency and share of traffic ('TRAFWGT').
- **'FEE SPLIT'** (page 54): Detailed breakdown of "registration and weight" fees and "other" fees for allocation among commercial and non-commercial vehicles.
- **'FEE ADJ'** (page 56): Allocation factors for State Registration, Weight and Motor Carrier fees by weight class, scaled according to fee magnitude and number of registrations ('REG').
- **'ESAL ADJ'** (page 58): Weighted share of strength-driven expenditures, based on share of rural traffic by weight ('RTRAF WGT') and ESAL coefficients for various vehicle configurations ('CONFIG').
- **'EXP ARRAY'** (page 59): Array of expenditures by level of government and type of expenditure. Totals refer to expenditure inputs ('EXPEND IN').
- **'LOCAL ADJ'** (page 61): Split factors for local expenditures according to pavement and non-pavement maintenance, locally funded projects and highway patrol extrapolations.
- **'HURF DIST'** (page 63): Forecast distribution of HURF funds to various agencies and levels of government.
- **'FED FEES'** (page 57): Allocation factors for Federal Sales, Tire and Use fees, respectively scaled according to value ('TRK VAL'), configuration ('CONFIG') and registration ratios ('REG').

III. Reference

- **'REG'** (page 65): Vehicle registration counts and ratios by broad vehicle type (e.g. Auto, SU, etc.) and weight class.
- **'VMT'** (page 66): Forecast shares of total VMT by vehicle and weight class according to HPMS inputs ('HPMS IN') and registrations by vehicle and weight class ('REG').
- **'RVMT'** (page 67): Forecast shares of rural VMT by vehicle and weight class according to HPMS inputs ('HPMS IN') and registrations by vehicle and weight class ('REG').
- **'UVMT'** (page 67): Forecast shares of urban VMT by vehicle and weight class according to HPMS inputs ('HPMS IN') and registrations by vehicle and weight class ('REG').
- **'CONFIG'** (page 71): Distribution of axle weight and corresponding ESAL coefficients according to vehicle configuration and weight class.
- **'MAB DERIV'** (page 73): Algebraic derivation of standard axle weights for tandem axle ESAL calculations in 'CONFIG'.
- **'COMWGT'** (page 68): Commercial vehicle weight counts and ratios from original ADOT HCAS. Ratios used to distribute commercial registrations ('REG') according to specific configurations.
- **'RTRAF WGT'** (page 69): Rural VMT ('RVMT') allocated among all listed vehicle configurations, according to proportional registrations in each vehicle and weight class.
- **'TRAF WGT'** (page 70): Total VMT ('VMT') allocated among all listed vehicle configurations, according to proportional registrations in each vehicle and weight class.
- **'TRK VAL'** (page 74): Scaled valuations of SU and CMB trucks, used in the allocation of Vehicle License Tax and Federal Sales Tax revenues among these vehicle classes.

IV. Outputs

- **'REV OUT'** (page 75): Detailed summary of revenues ('REV IN') by vehicle class and weight class.
- **'EXP OUT'** (page 77): Detailed summary of highway and overhead expenditures ('EXPEND ARRAY') by vehicle class and weight class.
- **'RATIOS OUT'** (page 78): Calculation of user revenue to cost responsibility ratios, according to vehicle and weight class, as well as aggregated sources of funds and expenditures.

SMHCAS Update Instructions

This section provides an overview of the data sources and steps required for an update of the SMHCAS. However, these update instructions are intended for users that have familiarized themselves with the SMHCAS components. It is strongly recommended that the more detailed update instructions found in the "Worksheet Details" beginning on page 47 be followed for the first update performed by a new user of the SMHCAS.

The following data sources will be needed for a basic update of the SMHCAS:

- ADOT Discretionary Funds Analysis and TEA-21 Federal Apportionments

This report provides a summary of the Arizona Department of Transportation operating budget, including funds allocated to administrative and overhead expenditures, debt service, federal aid and the available construction budget. The fund budgets HURF revenues apportioned for discretionary spending by ADOT, and does not include such funds as the share of VLT allocated to the Arizona General Fund.

Data source: T0m Noss, Financial Management Services, Cash Management
(602) 712-6642, tnoss@dot.state.az.us

- ADOT Outstanding Debt Service by Issue and HURF Distribution Forecast

The debt service report provides a breakdown of interest and principal payment forecasts according to type of debt issued, including debt backed by non-user revenues (e.g. RARF obligations backed by sales taxes). Only interest payments on these obligations are considered in the allocation of cost responsibility. The HURF distribution forecast provides a breakdown of Highway User Revenue Fund allocations to various levels of government (e.g. state transfers to local governments and regional freeway planning organizations).

Data source: John McGee, Director, Financial Management Services
(602) 712-7441, jmcgee@dot.state.az.us

- Five-Year Obligation Program, sorted according to instructions in Appendix B

The Obligation Program summarizes all state-level capital and highway-related expenditures. Totals include projects funded with both state and federal funds, and are noted accordingly. Expenditures are designated by highway segment, type of project, and amount of expenditure. However, the assignment of urban/rural designation by functional class of roadway is not included in the Obligation Program report, and must be sorted manually or according to the procedure described in Appendix B.

Data source: Arnold Burnham, Transportation Planning Division,
Priority Planning Group, (602) 712-8591, aburnham@dot.state.az.us

- Regional Capital Improvement Spending Forecasts for MAG and PAG, if available

Regional capital improvement plans (CIPs) are available from the Maricopa Association of Governments and the Pima Association of Governments. Some reports can be accessed on the internet at www.maricopa.gov and www.pagnet.org. MAG expenditures for the most recent

update were taken from the *Performance Audit of the Maricopa Regional Freeway System*, 1997. The PAG estimates are from the most recent PAG CIP.

- HURF Revenue Forecast (including share of VLT revenues not dedicated to the HURF)

The HURF Revenue Forecast provides ADOT's estimates of highway user revenues by type for the forecast period. Revenues are broken down into gasoline and use fuel (diesel) tax receipts, vehicle license taxes, registration and weight fees, motor carrier fees and other miscellaneous revenues. The 1999 forecast provided additional estimates of sub-category distributions for registration and weight fees and miscellaneous fees.

Data source: Nettie Klingler, Financial Management Services, Fiscal Planning, (602) 712-4638, nklingler@dot.state.az.us

- Current state and federal fuel tax rates

Current state and federal fuel tax rates are available from ADOT finance or from FHWA, and are normally included with the HURF Revenue Forecast documentation.

Data source: Nettie Klingler, Financial Management Services, Fiscal Planning, (602) 712-4638, nklingler@dot.state.az.us

The current version of the SMHCAS references years 1987, 1992 and 1997 for VMT projections in worksheet 'HPMS IN'. If more recent VMT data are readily available, these data should be updated as well. HPMS traffic data may be obtained from Mark Catchpole (602-712-8596, mcatchpole@dot.state.az.us). In addition, any changes in registration, weight or motor carrier fees will require an update of sheet 'REG.' A discussion of these "optional" inputs follows the basic update instructions.

Basic Update: Cost Responsibility

The following inputs are required to allocate cost responsibility for a new program period (all cell references refer to worksheet '**EXP IN**'):

1. Enter start and end years for the new update period in cells B2:B3.
2. Enter sorted totals for Five-Year Obligation Program expenditures in cells B10:C12.
3. Update Discretionary Fund totals in cells G5:K11 and G13:K18.
4. Update Federal TEA-21 Apportionments in cells G21:K24. If federal funding for Highway Patrol expenditures are not available, leave cells K21:K24 blank.
5. Input MAG and PAG Capital Improvement Plan expenditures in cells G26:K27.
6. Update RARF and HURF debt service payments in cells G29:K30. Note that these values should include interest payments only.
7. Enter new values for the HURF Distribution Forecast in cells G32:K35. Forecast values through fiscal year 2006 are available from reference worksheet 'HURF DIST.'

Basic Update: User Revenues

The following inputs are required to allocate highway user revenues for a new program period (all cell references refer to worksheet '**REV IN**'):

1. Enter start and end years for the new update period in cells B2:B3.
2. Enter state fuel tax rates in cells B7:B8 and federal fuel tax rates in cells B11:B12.
3. Enter the percentage of VLT revenues dedicated to the HURF in cell B15.
4. Update the HURF Revenue Forecast in cells G5:K7 and G9:K11.
5. If available, update federal sales, tire and commercial use fees in cells G16:K18. If these data are not available, leave cells blank.

No further information is required for a basic update of the SMHCAS. However, output results could be distorted by changes in registration and weight fees, traffic composition or the number of registrations in a given vehicle category. As more recent versions of these data become available, it is recommended that the SMHCAS be updated periodically in the following categories:

Changes to Vehicle Miles of Travel by Traffic Composition:

Periodic updates to sheet 'HPMS IN' are recommended in order to reflect changing traffic patterns on state highways. As data for a new year becomes available, total VMT by class of roadway can be updated by replacing 1997 values in 'HPMS IN' D3:D9 and D13:D18. The new proportions of travel by vehicle type and class of roadway should also be changed in cells B64:N69 and B73:N78.

After a few updates of the last year only (i.e. D3:D9), it is recommended that the 1987 and 1992 periods be replaced with averages.[20] For example, 1987 totals in cell ranges B3:B18 and B24:N38 should be updates with the average of 1987 and 1992 values, with the year "1989.5" listed in cell B3. The 1992 totals shown in cells C3:C18 and B44:N58 should be similarly updated to reflect the average of the 1992 and 1997 totals, with "1994.5" listed in cell C3. Replacing individual years with averages will provide a more robust means of forecasting future traffic without the need to collect data for each intermediate year. To simplify the process, these average values have been provided in cells 'HPMS IN' A100:O158.

Changes to Registration Counts and User Fees:

The number of registrations by vehicle class and weight class can be adjusted in sheet 'REG' cells B3:F25. New registered gross weight counts for various truck configurations may be updated in 'COMWGT' B5:N28.

[20] This should only be done if averages are available for the latest program period as well. Do not replace VMT data for the first two periods while leaving the last period unadjusted. For example, if year 2001 VMT data are available, replace the 1997 data with the average of the 1997 and 2000 data.

Current registration, weight and motor carrier fees are located in 'FEE ADJ' B2:D24. Should any of these fees change, this cell range can be updated with the new values.

SMHCAS Worksheet Details

The following section provides detailed descriptions of all sheets referenced or updated in the SMHCAS. Each sheet description includes an illustration of the worksheet as it appears to the user of the SMHCAS. Relevant cell references and links to other worksheets are also provided. Appendix C of this report contains cell formulas used by the SMHCAS in tabular form.

In accordance with the goal of providing a portable, easy-to-use model, the SMHCAS contains no macros, external references, algorithms or other complications. All calculations are made using standard Excel formulas and internal look-up references. Additional calculations may be required in order to format certain data sets (e.g. ADOT's Five Year Obligation Program) for input. It is recommended that only numerical entries be updated in the SMHCAS. The model's functionality is heightened by the lack of external references, and by updating the input sections with numerical values only, the chance of error is greatly diminished.

Cells to be updated in the various '--- IN' worksheets are surrounded by heavy black borders. Cells shaded in gray contain formulas or default settings for the worksheet and should not be changed for a basic update. All shaded cells are protected by a password, which can be accessed from the 'Intro' worksheet. Pages 45 to 50 provide instructions for conducting a basic update of the SMHCAS. A "basic" update requires only the manipulation of the three input worksheets: 'EXP IN', 'REV IN' and 'HPMS IN'. Remaining worksheets in the model are discussed in order of appearance in the model following the update instructions.

Updating Expenditures

Expenditure data for the SMHCAS are primarily located in worksheet 'EXP IN.' Cells that require updates are bordered by a heavy black line. Shaded cells are protected, and should not be changes for a basic update. Each major input category contains a comment marker or footnote that references the current data source for the input requirement. For example, the footnote "a." in cell F4 refers to Tim Ahrens as the current source of ADOT's Discretionary Fund Analysis. The following steps should be taken to update expenditures for the forecast period (refer to Figure 17 for cell locations):

1. Input the start year and end year of the forecast period in cells B2 and B3. These data *must* be included for all calculations to work properly.
2. Input the sorted totals for the forecast period Obligation Program (see Appendix B) in cells B10:C12. ADOT's "Obligation Program" refers to state construction projects to be undertaken in the forecast period. Because the layout of Obligation Program files is subject to change, the SMHCAS requires manual input of expenditure classes and funding splits for the Obligation Program. These projects are sorted according to source of funds (state or federal) and type of expenditure (rural/urban capital improvements or common costs such as signage).

3. Input the various line items from ADOT's Discretionary Fund Analysis in cells G5:K18. The Discretionary Fund Analysis provides a line-item breakdown of the budget for the state transportation department, not including items such as transfers to local governments. Lines F6:F11 refer to the various administrative and overhead charges associated with running the Arizona Department of Transportation. Subtracting these expenses from the total available (line F5) leaves the amount available in the Highway User Revenue Fund that is available for construction (F12). This line is followed by Federal Aid and other adjustments to the budget (F13:F17), which can be compared with the Programmed Bids (F18) to determine the state's net budget surplus or shortfall.

Figure 17: EXP IN Worksheet

Microsoft Excel - SMHCAS.xls

File Edit View Insert Format Tools Data Stats Window Help

F1 = EXPENDITURE PROGRAM INPUTS (Thousands of Dollars)

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	PROGRAM PERIOD					EXPENDITURE PROGRAM INPUTS (Thousands of Dollars)							
2	Start Yea	2000					YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5		
3	End Year	2004				Category Inputs	2000	2001	2002	2003	2004	AVERAGE	TOTAL
4	Midpoint	2002.5				Discretionary Fund *-							
5						Total Available	463,725	531,291	505,168	558,972	559,025	523,636	########
6	ADOT Obligation Program (Sorted)					Operating Program	247,446	254,591	266,512	277,173	288,260	266,796	########
7	(Thousands of Dollars)					Land, Bldg & Improvements	16,100	16,900	12,000	12,000	12,000	13,800	69,000
8	Expend	Funding Source				Arbitrage Expenses	0	0	0	0	0	0	0
9	Class	State	Federal	Total		DPS Transfer	10,000	10,000	10,000	10,000	10,000	10,000	50,000
10	Urban	125,894	598,429	724,323		Debt Service	45,732	45,502	40,663	43,142	43,142	43,636	218,181
11	Rural	185,851	907,684	1,093,535		GITA	0	0	0	0	0	0	0
12	Common	543,661	316,884	860,545		HURF Available for Construction	144,447	204,298	175,993	216,657	205,623	189,404	947,018
13	Total	855,406	#######	2,678,403		Federal Aid	300,816	306,647	312,124	318,270	318,270	311,225	########
14						Federal Aid (PLH FL)	5,800	0	10,000	0	0	3,160	15,800
15	Adjusted Construction Program					Set Aside for SIBS	0	0	0	0	0	0	0
16	(Thousands of Dollars)					Local/Private/3rd Party	3,141	1,000	0	0	0	828	4,141
17	Expend	Funding Source				Inflation Cost Estimate	0	10,000	10,000	19,611	18,094	11,541	57,705
18	Class	State	Federal	Total		Programmed/Scheduled Bids	522,447	459,291	493,948	560,308	516,978	510,594	########
19	Urban	139,377	598,429	737,806		Federal Apportionments *-							
20	Rural	205,755	907,684	######		State Programmable Funds	264,718	300,514	305,882	311,905	311,905	298,985	########
21	Common	601,886	316,884	918,770		Maricopa Urban Programmable	63,264	64,659	65,858	67,224	67224	63,068	315,338
22	Total	947,018	#######	######		Pima Urban Programmable	14,677	14,884	15,063	15,267	15,267	14,437	72,187
23						Other Local Programmable	9,627	9,631	9,634	9,638	9,638	9,248	46,242
24						Highway Patrol						0	0
25						Regional CIPs							
26						MAG & RARF	62,934	40,903	43,591	52,736	52,736	50,580	252,900
27						PAG	24,846	25,410	25,986	26,575	26,575	25,879	129,393
28						Interest on Bonds *-							
29						RARF	36,430	30,334	38,232	33,165	28,193	33,271	166,354
30						HURF	28,673	26,050	23,279	21,657	19,516	23,835	119,175
31						HURF Distribution Forecast *-							
32						Highway Fund	407,213	420,917	439,117	455,861	476,545	439,931	########

Intro | Glossary | <Inputs> | EXP IN | REV IN | HPMS IN | <Adj Factors> | VI

Ready NUM

4. Input federal aid apportioned for various state and local highway agencies in cells G20:K24. Note that federal aid apportioned for state projects is calculated based on the "Federal Aid" line of the Discretionary Fund (G13:K13) multiplied by the apportionment ratio for each year of the five-year program. The default ratios for the SMHCAS are 88 percent for the first year and 98 percent in subsequent years. These ratios can be changed by removing the cell protection, and then inserting the new ratios in the appropriate cells. Alternately, the formulas can be removed and new values simply keyed into the model. The remaining line items (Maricopa, Pima, etc.) are distributed as "local" expenditures in the cost allocation, with the exception of federal funds earmarked for "Highway Patrol" expenditures. Highway patrol expenses are distributed as common costs. If highway

patrol distributions are not available, the SMHCAS allocates an amount equal to the average highway patrol allocation for the 1988 to 1997 update periods.

5. Update interest payments on bonds for Highway User Revenue Fund and Regional Area Road Fund obligations. These figures should include only the interest expense of servicing these debts, and should *not* include principal payments.
6. The distribution of Highway User Revenue Fund includes allocations of state highway funds to various local entities (e.g. cities, counties, MAG). For the purposes of this analysis, it is assumed that these funds are spent on various types of highway projects according to the results of previous surveys of local governments. These estimates are also used to project local government expenditures funded by local and federal sources refer to sheet 'LOCAL ADJ'. Estimated HURF Distributions through fiscal 2006 can be found in worksheet 'HURF DIST'. However, as these estimates were made in 1998, it is recommended that 'HURF DIST' be updated within the next few years. Appropriate items from the 'HURF DIST' worksheet should be entered in cells G32:K35 of the 'EXP IN' worksheet.

Totals from the above steps are allocated according to type (e.g. "urban") and level (e.g. "local") of expenditure in worksheet 'EXP ARRAY'. The final distribution of cost responsibility is made from 'EXP ARRAY' and not from 'EXP IN'. However, all adjustments to expenditure totals should be made from sheet 'EXP IN' to preserve the formulas in 'EXP ARRAY'.

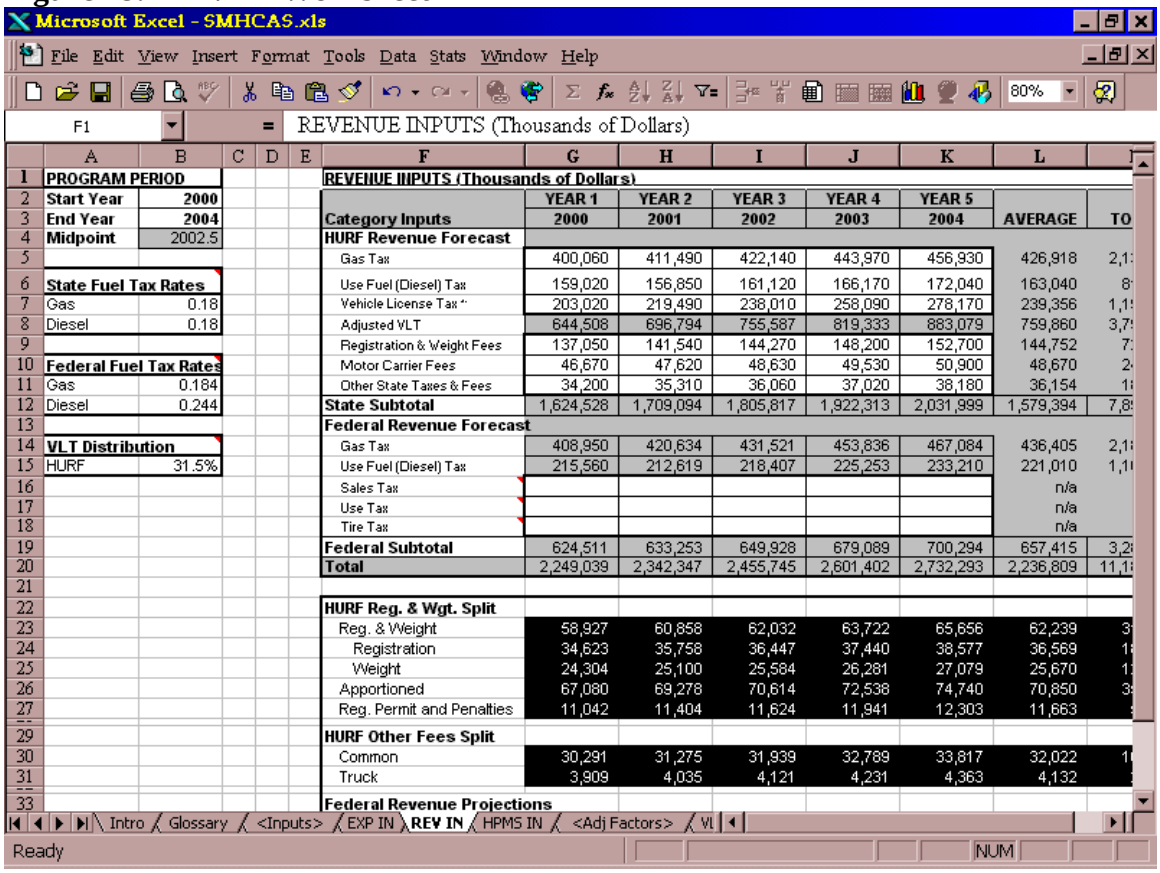
Updating Revenues

Highway user revenues for the SMHCAS should be updated in worksheet 'REV IN'. As indicated in Figure 18, major revenue categories are delineated in the same way as expenditures in worksheet 'EXP IN'. Virtually all revenue projections are available in the HURF Revenue Forecast available from the ADOT Finance Department. The following steps should be taken in order to update worksheet 'REV IN':

1. Input the start year and end year of the forecast period in cells B2 and B3. As before, these data *must* be included for all calculations to work properly.
2. Input the state tax rates for gasoline and diesel fuels in cells B7:B8. These should be entered as cents per gallon in decimal format (e.g. 18 cents per gallon entered as "0.18"). Input federal fuel tax rates in cells B11:B12 using the same format.
3. Cell B15 refers to the share of the Arizona vehicle license tax (VLT) dedicated to the Highway User Revenue Fund. The inverse of this share is used to estimate the *total* VLT collected in Arizona based on the HURF revenue projection. This upward adjustment is made because the total VLT represents the charge that highway users pay for use of the roads, regardless of the share of VLT earmarked for highway purposes. In the event that the entire amount of VLT collected were dedicated to highway purposes, the entry in cell B15 would be 100 percent. However, if none of the VLT revenue is earmarked for highway purposes, *do not* enter 0% in cell B15. Instead, select from the toolbar at the top of the worksheet: **Tools > Protection > Unprotect sheet** and enter the password (see 'INTRO' E3) when prompted. Then enter the appropriate VLT totals in cells G8:K8.

Note that this will delete the formulas for adjusting the VLT totals, so the edited SMHCAS file should be renamed.

Figure 18: REV IN Worksheet



1	PROGRAM PERIOD					REVENUE INPUTS (Thousands of Dollars)							
2	Start Year	2000					YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5		
3	End Year	2004				Category Inputs	2000	2001	2002	2003	2004	AVERAGE	TO
4	Midpoint	2002.5				HURF Revenue Forecast							
5						Gas Tax	400,060	411,490	422,140	443,970	456,930	426,918	2,1
6	State Fuel Tax Rates					Use Fuel (Diesel) Tax	159,020	156,850	161,120	166,170	172,040	163,040	8
7	Gas	0.18				Vehicle License Tax *	203,020	219,490	238,010	258,090	278,170	239,356	1,1
8	Diesel	0.18				Adjusted VLT	644,508	696,794	755,587	819,333	883,079	759,860	3,7
9						Registration & Weight Fees	137,050	141,540	144,270	148,200	152,700	144,752	7
10	Federal Fuel Tax Rates					Motor Carrier Fees	46,670	47,620	48,630	49,530	50,900	48,670	2
11	Gas	0.184				Other State Taxes & Fees	34,200	35,310	36,060	37,020	38,180	36,154	1
12	Diesel	0.244				State Subtotal	1,624,528	1,709,094	1,805,817	1,922,313	2,031,999	1,579,394	7,8
13						Federal Revenue Forecast							
14	VLT Distribution					Gas Tax	408,950	420,634	431,521	453,836	467,084	436,405	2,1
15	HURF	31.5%				Use Fuel (Diesel) Tax	215,560	212,619	218,407	225,253	233,210	221,010	1,1
16						Sales Tax						n/a	
17						Use Tax						n/a	
18						Tire Tax						n/a	
19						Federal Subtotal	624,511	633,253	649,928	679,089	700,294	657,415	3,2
20						Total	2,249,039	2,342,347	2,455,745	2,601,402	2,732,293	2,236,809	11,1
21													
22						HURF Reg. & Wgt. Split							
23						Reg. & Weight	58,927	60,858	62,032	63,722	65,656	62,239	3
24						Registration	34,623	35,758	36,447	37,440	38,577	36,569	1
25						Weight	24,304	25,100	25,584	26,281	27,079	25,670	1
26						Apportioned	67,080	69,278	70,614	72,538	74,740	70,850	3
27						Reg. Permit and Penalties	11,042	11,404	11,624	11,941	12,303	11,663	
29						HURF Other Fees Split							
30						Common	30,291	31,275	31,939	32,789	33,817	32,022	1
31						Truck	3,909	4,035	4,121	4,231	4,363	4,132	
33						Federal Revenue Projections							

4. Enter state revenue projections from the HURF Revenue Forecast in cells G5:K7 and G9:K11. Note that all revenue inputs are in thousands of dollars.
5. Federal fuel tax revenues are calculated based on the ratio of federal to state fuel tax rates. Therefore, no additional inputs are required for updating cells G14:K15. If estimates of federal sales, use and tire taxes are available, input these totals in cells G16:K18. If these data are not readily available, leave these cells blank and estimates will be made based on growth rates of these revenues for prior update periods (refer to worksheet 'FED FEES'). If cells G16:K18 are left blank, the default forecast totals for these revenues can be found in cells G34:K36.

Note that HURF "Registration & Weight" fees are further subdivided so that these revenues may be properly attributed to commercial and non-commercial vehicles. Totals by subcategory can be found in cells F23:K27. These subtotals are allocated according to the 1999 distribution of registration and weight fees (see worksheet 'FEE SPLIT'). As new estimates become available, it is recommended that the 'FEE SPLIT' worksheet be adjusted accordingly. Further detail of this recommendation is provided in the 'FEE SPLIT' worksheet description on page 54.

Updating Traffic

The SMHCAS relies on proportional shares of traffic by vehicle type and class of roadway to distribute revenues and cost responsibility. Unlike the AzHCAS, the SMHCAS does not project total VMT for the forecast period. The forecast of total VMT was omitted because the forecasts produced by the AzHCAS were often notably different from the estimates made by ADOT. In order to prevent confusion, the SMHCAS does not project total VMT counts at all. Instead, estimates of total VMT by vehicle or weight class can be calculated externally by applying the appropriate share of VMT reported in SMHCAS sheet 'VMT' (see below) to ADOT's forecast of total VMT for the midpoint year of a given forecast period.

Traffic updates should be done using total VMT estimates[21] by class of roadway and proportional shares of traffic reported via the ADOT Highway Performance Monitoring System (HPMS). As data for a new year becomes available, total VMT by class of roadway can be updated by replacing 1997 values in 'HPMS IN' D3:D9 and D13:D18. The new proportions of travel by vehicle type and class of roadway should also be changed in cells B64:N69 and B73:N78.

After a few updates of the last year only (i.e. D3:D9), it is recommended that the 1987 and 1992 periods be replaced with averages. For example, 1987 totals in cell ranges B3:B18 and B24:N38 should be updates with the average of 1987 and 1992 values, with the year "1989.5" listed in cell B3. The 1992 totals shown in cells C3:C18 and B44:N58 should be similarly updated to reflect the average of the 1992 and 1997 totals, with "1994.5" listed in cell C3. Replacing individual years with averages will provide a more robust means of forecasting future traffic without the need to collect data for each intermediate year. To simplify the process, these average values have been provided in cells 'HPMS IN' A100:O158.

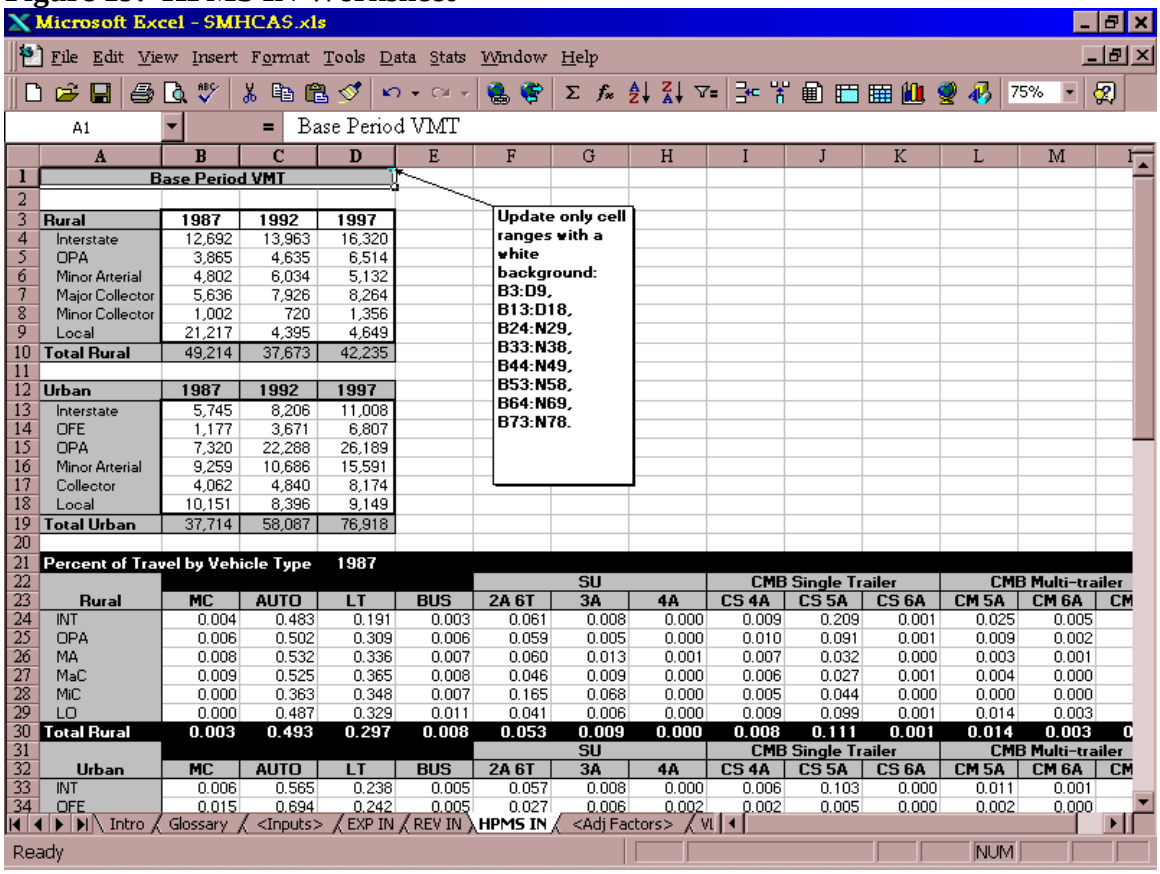
For the next cost allocation forecast, the following steps are recommended:

1. Enter the most recent HPMS traffic data available in cells D3:D9 and D13:D18. Change the proportions of travel by vehicle type and class of roadway in cells B64:N69 and B73:N78 to reflect the new HPMS data.
2. Select (click and drag across) cells B102:C108. Right-click the mouse over the highlighted range and select "**Copy**" from the drop-down menu. Select cells B3:C9, right click and select "**Paste special > Values**." This will replace the 1987 and 1992 rural VMT counts with averages. Follow the same procedure to replace the urban VMT data in cells B13:C18 with the urban averages from cells B112:C117.
3. In the same manner, select and **copy** cells A120:O158. Highlight cells A21:O59 and **paste** the contents of cells A120:O158 in the new location. Do *not* use the "paste special" command in this case, as the formulas in the reference lines (shaded black) need to be updated as well.

[21] Note that these estimates are not used to create forecast totals. However, these figures are required in order to properly weight the aggregated shares of travel to various vehicle classes.

Once steps 2 and 3 have been completed, only step 1 will be required for future updates to VMT. New averages may be prepared as the user determines necessary, but the averaging of traffic shares in steps 2 and 3 will have already enhanced the robustness of the HPMS share forecast considerably. No further action is required for updating traffic data.

Figure 19: HPMS IN Worksheet



Base Period VMT			
Rural	**1987**	**1992**	**1997**
Interstate	12,692	13,963	16,320
OPA	3,865	4,635	6,514
Minor Arterial	4,802	6,034	5,132
Major Collector	5,636	7,926	8,264
Minor Collector	1,002	720	1,356
Local	21,217	4,395	4,649
Total Rural	49,214	37,673	42,235
Urban	**1987**	**1992**	**1997**
Interstate	5,745	8,206	11,008
OFE	1,177	3,671	6,807
OPA	7,320	22,288	26,189
Minor Arterial	9,259	10,686	15,591
Collector	4,062	4,840	8,174
Local	10,151	8,396	9,149
Total Urban	37,714	58,087	76,918

Percent of Travel by Vehicle Type 1987

					SU			CMB Single Trailer			CMB Multi-trailer		
Rural	**MC**	**AUTO**	**LT**	**BUS**	**2A 6T**	**3A**	**4A**	**CS 4A**	**CS 5A**	**CS 6A**	**CM 5A**	**CM 6A**	**CM**
INT	0.004	0.483	0.191	0.003	0.061	0.008	0.000	0.009	0.209	0.001	0.025	0.005	
OPA	0.006	0.502	0.309	0.006	0.059	0.005	0.000	0.010	0.091	0.001	0.009	0.002	
MA	0.008	0.532	0.336	0.007	0.060	0.013	0.001	0.007	0.032	0.000	0.003	0.001	
MaC	0.009	0.525	0.365	0.008	0.046	0.009	0.000	0.006	0.027	0.001	0.004	0.000	
MiC	0.000	0.363	0.348	0.007	0.165	0.068	0.000	0.005	0.044	0.000	0.000	0.000	
LO	0.000	0.487	0.329	0.011	0.041	0.006	0.000	0.009	0.099	0.001	0.014	0.003	
Total Rural	**0.003**	**0.493**	**0.297**	**0.008**	**0.053**	**0.009**	**0.000**	**0.008**	**0.111**	**0.001**	**0.014**	**0.003**	**0**
					SU			CMB Single Trailer			CMB Multi-trailer		
Urban	**MC**	**AUTO**	**LT**	**BUS**	**2A 6T**	**3A**	**4A**	**CS 4A**	**CS 5A**	**CS 6A**	**CM 5A**	**CM 6A**	**CM**
INT	0.006	0.565	0.238	0.005	0.057	0.008	0.000	0.006	0.103	0.000	0.011	0.001	
OFE	0.015	0.694	0.242	0.005	0.027	0.006	0.002	0.002	0.005	0.000	0.002	0.000	

Adjustment Factors

The worksheets in this section are used in a variety of ways, depending upon the type of data being adjusted. Generally, the contents of an "adjustment" worksheet will aggregate data from several different worksheets or data sources, often applying historical growth rates or subcategory breakdowns to allocate a given variable. Each worksheet description, prefaced by an illustration, contains a discussion of the important references within the worksheet, the rationale for using particular data sets, update instructions when applicable, and its connection to other worksheets within the model.

'VLT ADJ' Worksheet

Historical collections of the vehicle license tax (VLT) are used as the primary basis for allocating VLT funds in the SMHCAS. This process differs from that of the AzHCAS model, which creates a VLT forecast based on an extrapolation from the 1990 registration data. While the two models are thus expected to report differing results for the VLT allocation, the allocation process used by the SMHCAS is expected to provide more accurate results.[22] Historical VLT collections can be found in ADOT data report MV-620-280-8, produced on an annual basis.

Vehicle license tax collections from 1992 to 1998 are split among passenger vehicles, trucks and trailers, and buses in cells A3:H12. The matrix of cells immediately below (A15:H22) converts the collected totals to percentages attributable to each vehicle class, *based on the sum of recorded classes only*.[23] Commercial truck VLT revenues are subdivided into proportional shares corresponding to truck units and trailer units (see 'FEE ADJ' for further discussion) in cells A25:H27. An average value and an annualized growth estimate is calculated for each series of proportional shares in columns J and K respectively. Annualized growth is calculated as follows:

$$\text{Growth} = (\text{Share}_e \div \text{Share}_b)^{[1\div(e-b)]} \qquad \textit{where } e = \textit{end year and } b = \textit{beginning year}$$

Growth rates per share are used to forecast program period share of VLT from the average share for each vehicle class in cells A29:D38. The following formula is used in column C to make the program period forecast of VLT share for each vehicle class:

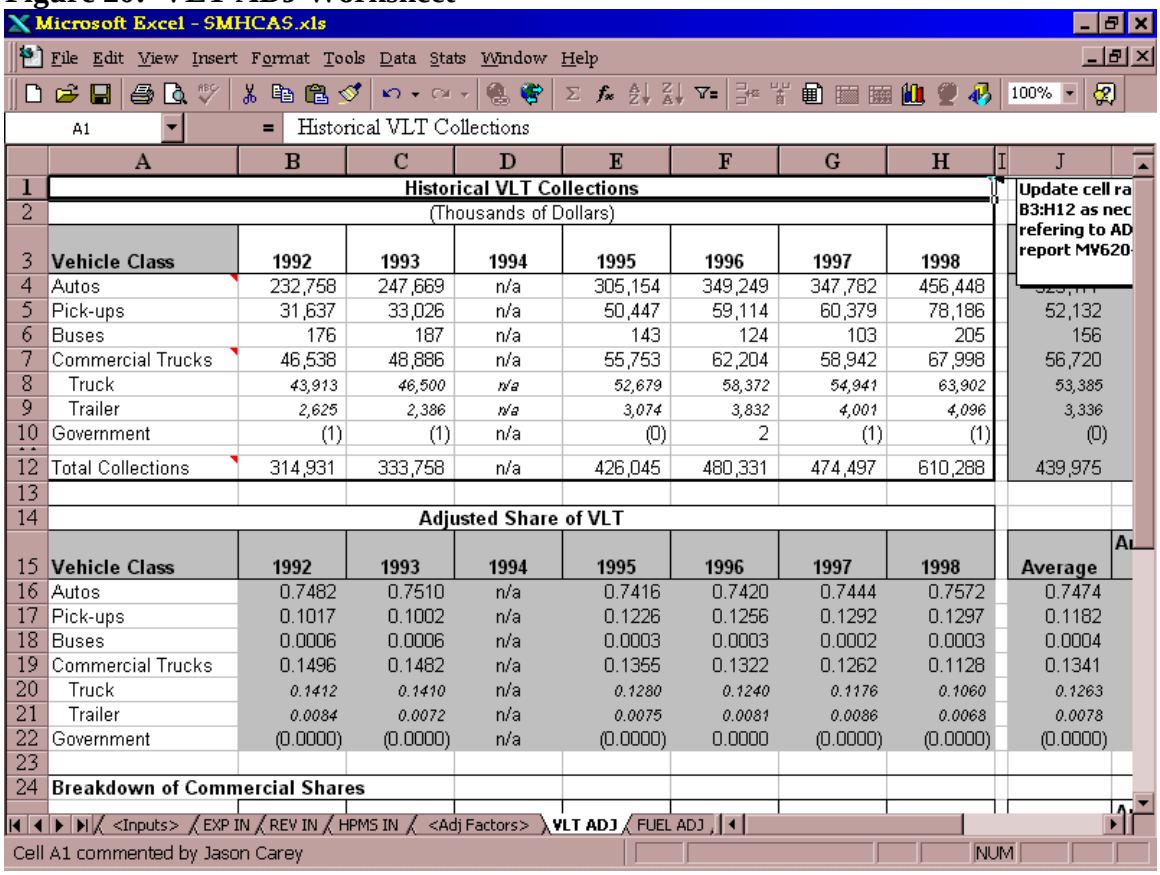
$$\text{Forecast} = \text{Average} \times (\text{Growth})^{[M-e]} \qquad \textit{where } e = \textit{end year and } M = \textit{midpoint of the forecast}$$

The final shares for the forecast period (column D) are referenced in the VLT allocation in worksheet 'REV OUT'. However, the final output is also influenced by registration splits and commercial vehicle valuations, discussed in the 'REG' and 'TRK VAL' worksheets respectively.

[22] Note that both models extrapolate shares of VLT from limited base periods. However, the SMHCAS uses a series of six years of VLT collections to make an extrapolation, whereas the base share in the AzHCAS relies on a single year (1990). The SMHCAS forecast is therefore expected to provide a more accurate short-term projection.

[23] Certain vehicle classes (e.g. farm vehicles and boats) are intentionally excluded from these calculations. The exclusion does not alter the total amount of VLT collected, only the share attributed to each class of highway user.

Figure 20: VLT ADJ Worksheet



Microsoft Excel - SMHCAS.xls

File Edit View Insert Format Tools Data Stats Window Help

A1 = Historical VLT Collections

	A	B	C	D	E	F	G	H	I	J
1	Historical VLT Collections									Update cell ra
2	(Thousands of Dollars)									B3:H12 as nec
3	Vehicle Class	1992	1993	1994	1995	1996	1997	1998		refering to AD
4	Autos	232,758	247,669	n/a	305,154	349,249	347,782	456,448		report MV620
5	Pick-ups	31,637	33,026	n/a	50,447	59,114	60,379	78,186		52,132
6	Buses	176	187	n/a	143	124	103	205		156
7	Commercial Trucks	46,538	48,886	n/a	55,753	62,204	58,942	67,998		56,720
8	Truck	*43,913*	*46,500*	*n/a*	*52,679*	*58,372*	*54,941*	*63,902*		*53,385*
9	Trailer	*2,625*	*2,386*	*n/a*	*3,074*	*3,832*	*4,001*	*4,096*		*3,336*
10	Government	(1)	(1)	n/a	(0)	2	(1)	(1)		(0)
12	Total Collections	314,931	333,758	n/a	426,045	480,331	474,497	610,288		439,975
13										
14	Adjusted Share of VLT									
15	Vehicle Class	1992	1993	1994	1995	1996	1997	1998		Average
16	Autos	0.7482	0.7510	n/a	0.7416	0.7420	0.7444	0.7572		0.7474
17	Pick-ups	0.1017	0.1002	n/a	0.1226	0.1256	0.1292	0.1297		0.1182
18	Buses	0.0006	0.0006	n/a	0.0003	0.0003	0.0002	0.0003		0.0004
19	Commercial Trucks	0.1496	0.1482	n/a	0.1355	0.1322	0.1262	0.1128		0.1341
20	Truck	*0.1412*	*0.1410*	*n/a*	*0.1280*	*0.1240*	*0.1176*	*0.1060*		*0.1263*
21	Trailer	*0.0084*	*0.0072*	*n/a*	*0.0075*	*0.0081*	*0.0086*	*0.0068*		*0.0078*
22	Government	(0.0000)	(0.0000)	n/a	(0.0000)	0.0000	(0.0000)	(0.0000)		(0.0000)
23										
24	Breakdown of Commercial Shares									

<Inputs> EXP IN REV IN HPMS IN <Adj Factors> VLT ADJ FUEL ADJ

Cell A1 commented by Jason Carey NUM

'FUEL ADJ' Worksheet

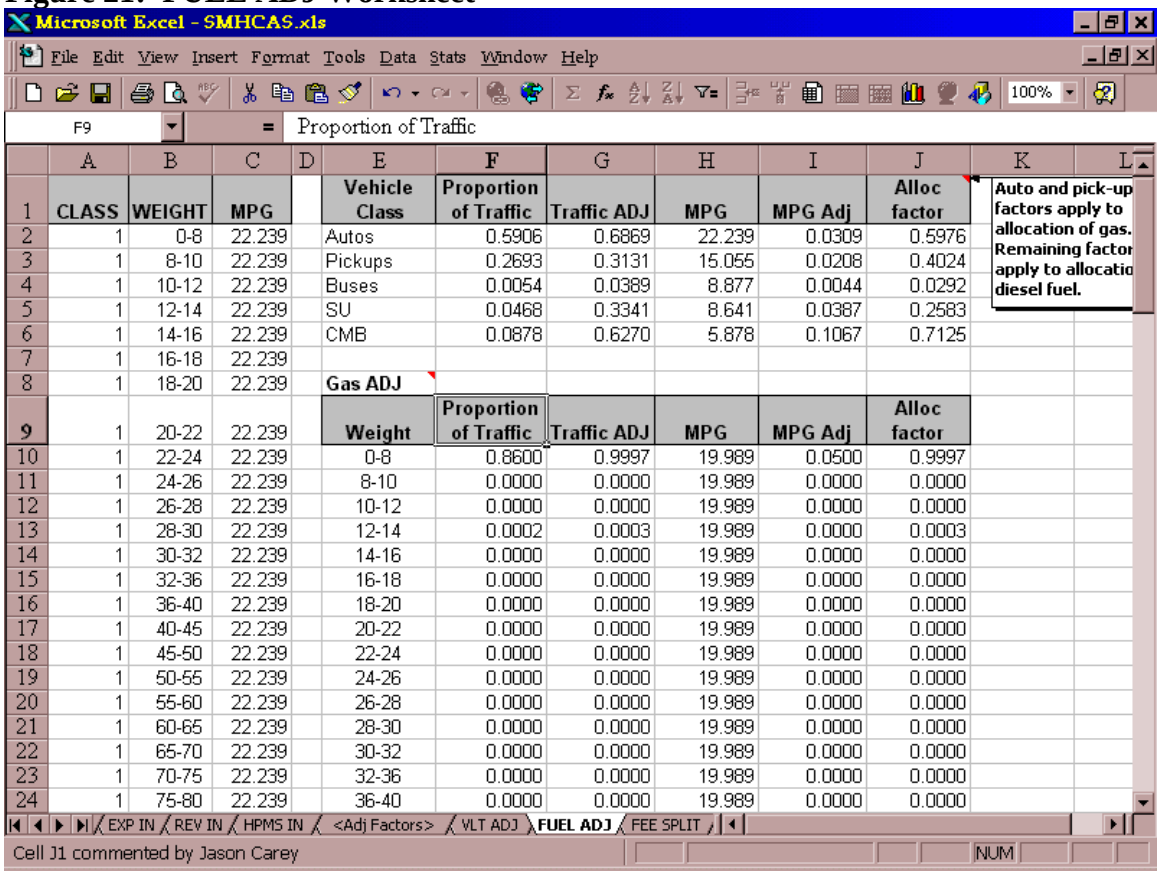
Fuel tax revenues are distributed among vehicle and weight classes according to a combination of vehicles miles of travel (VMT) and fuel efficiency. The latter criterion is designated in terms of estimated miles per gallon (MPG) for a given vehicle class and weight combination. Fuel efficiency estimates have been laid out in a similar fashion as that of the AzHCAS model (file VCH.PRN). However, MPG estimates were updated to reflect improvements in fuel economy since the completion of the AzHCAS.

MPG estimates for vehicle and weight class combinations are listed in cells A1:C116. The numerical values in column A correspond to vehicle classes as outlined in AzHCAS 'VCH.PRN'. Class 1 refers to passenger automobiles, Class 2 refers to pick-ups and SUVs, Class 3 = buses, Class 4 = single-unit trucks, and Class 5 = combination trucks. Note that estimated fuel economies do not change with weight class for vehicle classes 1 and 2 (passenger autos and pick-ups/SUVs). No estimates exist for these vehicles in any other than the lightest weight class. However, as virtually no registrations occur in heavier weight classes for these vehicles, this omission has no impact on the distribution of fuel tax revenues.

Matrices in columns E to J calculate allocation factors for fuel tax revenues according to the MPG estimates in columns A to C and the estimated proportion of total program period traffic

attributed to each vehicle/weight class. The allocation of fuel tax revenues is split among gasoline and diesel revenues, with the former allocated in its entirety to autos and pick-ups/SUVs, and the latter split among buses and trucks.

Figure 21: FUEL ADJ Worksheet



Microsoft Excel - SMHCAS.xls

File Edit View Insert Format Tools Data Stats Window Help

F9 = Proportion of Traffic

	A	B	C	D	E	F	G	H	I	J	K	L
1	CLASS	WEIGHT	MPG		Vehicle Class	Proportion of Traffic	Traffic ADJ	MPG	MPG Adj	Alloc factor	Auto and pick-up factors apply to allocation of gas. Remaining factor apply to allocatio diesel fuel.	
2	1	0-8	22.239		Autos	0.5906	0.6869	22.239	0.0309	0.5976		
3	1	8-10	22.239		Pickups	0.2693	0.3131	15.055	0.0208	0.4024		
4	1	10-12	22.239		Buses	0.0054	0.0389	8.877	0.0044	0.0292		
5	1	12-14	22.239		SU	0.0468	0.3341	8.641	0.0387	0.2583		
6	1	14-16	22.239		CMB	0.0878	0.6270	5.878	0.1067	0.7125		
7	1	16-18	22.239									
8	1	18-20	22.239		Gas ADJ							
9	1	20-22	22.239		Weight	Proportion of Traffic	Traffic ADJ	MPG	MPG Adj	Alloc factor		
10	1	22-24	22.239		0-8	0.8600	0.9997	19.989	0.0500	0.9997		
11	1	24-26	22.239		8-10	0.0000	0.0000	19.989	0.0000	0.0000		
12	1	26-28	22.239		10-12	0.0000	0.0000	19.989	0.0000	0.0000		
13	1	28-30	22.239		12-14	0.0002	0.0003	19.989	0.0000	0.0003		
14	1	30-32	22.239		14-16	0.0000	0.0000	19.989	0.0000	0.0000		
15	1	32-36	22.239		16-18	0.0000	0.0000	19.989	0.0000	0.0000		
16	1	36-40	22.239		18-20	0.0000	0.0000	19.989	0.0000	0.0000		
17	1	40-45	22.239		20-22	0.0000	0.0000	19.989	0.0000	0.0000		
18	1	45-50	22.239		22-24	0.0000	0.0000	19.989	0.0000	0.0000		
19	1	50-55	22.239		24-26	0.0000	0.0000	19.989	0.0000	0.0000		
20	1	55-60	22.239		26-28	0.0000	0.0000	19.989	0.0000	0.0000		
21	1	60-65	22.239		28-30	0.0000	0.0000	19.989	0.0000	0.0000		
22	1	65-70	22.239		30-32	0.0000	0.0000	19.989	0.0000	0.0000		
23	1	70-75	22.239		32-36	0.0000	0.0000	19.989	0.0000	0.0000		
24	1	75-80	22.239		36-40	0.0000	0.0000	19.989	0.0000	0.0000		

EXP IN | REV IN | HPMS IN | <Adj Factors> | VLT ADJ | FUEL ADJ | FEE SPLIT

Cell J1 commented by Jason Carey

NUM

Each vehicle or weight class is assigned a "Traffic Adjustment" (column G) to account for its weighted share of total VMT (column F). This weighted share is then divided by the MPG estimate for the vehicle/weight class.[24] The final allocation factor reflects this "MPG Adjustment" divided by the sum of all MPG Adjustment values. The distribution of diesel revenues by weight class requires an extra step, due to the variance in fuel economy by weight class. The share of traffic from 'TRAF WGT' attributable to each commercial vehicle/weight class combination is first used to distribute fuel efficiencies in cells E61:G85. Using these traffic-weighted MPG estimates, the diesel fuel allocation for buses and trucks is calculated in cells E35:J58.

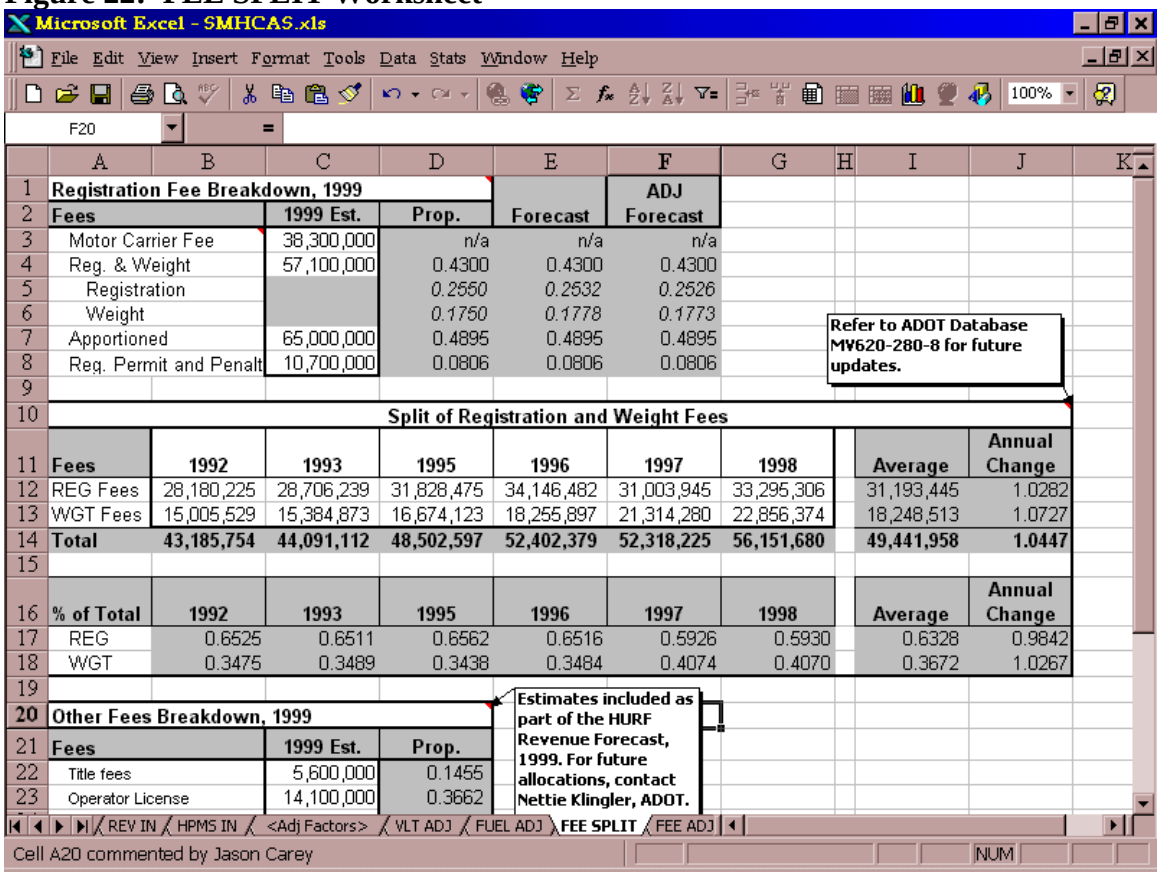
[24] The Traffic Adjustment is divided by MPG because an inverse relationship is assumed to exist between fuel economy and fuel expenditures. Thus autos are assigned a *lower* share of gas tax revenues than their share of VMT alone would otherwise warrant.

'FEE SPLIT' Worksheet

The 'FEE SPLIT' worksheet breaks down aggregated registration and weight-related fees so that subcategories may be properly allocated to commercial and non-commercial vehicles. Forecast outputs from the 'FEE SPLIT' worksheet are used to subdivide the "Registration and Weight fees" category in worksheet 'REV IN', cells G23:K27. The "Other state taxes and fees" category in sheet 'REV IN' (cells G30:K31) is also subdivided according to the distribution of these fees in 'FEE SPLIT'.

The 'FEE SPLIT' worksheet uses the 1999 distribution of aggregated fees as a starting point for the split. Details from the most recent HURF Revenue Forecast divided fees in the categories shown in cells range A3:C8. Motor carrier fees, apportioned registrations and registration permits and penalties are assigned solely to commercial vehicles, and are thus separated from other registration fees according to the 1999 estimate. An estimate of the weight-based element of standard registration and weight fees was made according to the historical distribution of "registration" (flat) and "weight" (sliding scale) fees from 1992 to 1998. These historical data, located in cells A10:J18, are used to split the "Registration and Weight" line item according to a forecast share growth rate over the available period.

Figure 22: FEE SPLIT Worksheet



"Other" state taxes and fees are allocated according to the 1999 distribution, under the assumption that commercial vehicles will bear the responsibility for "oversize" and "use fuel"

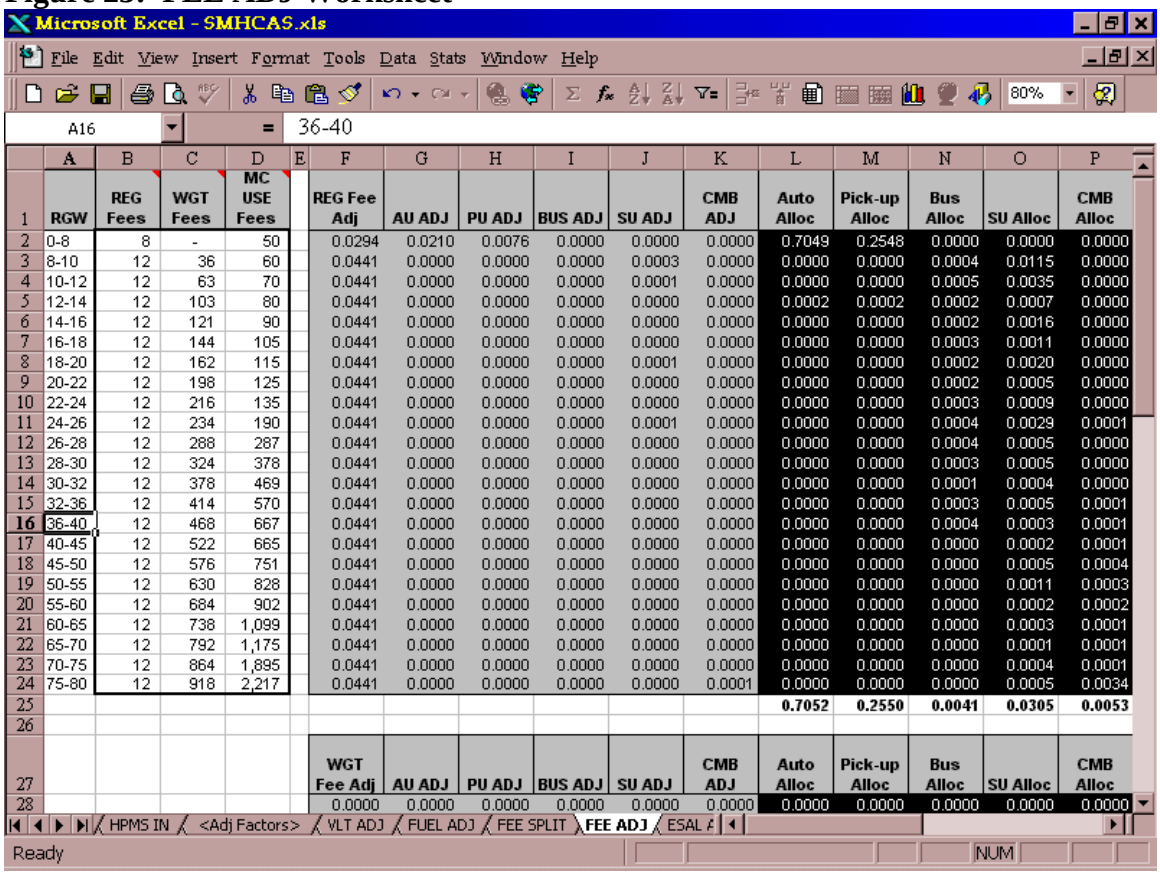
permits and penalties, with all other "common" fees in this category assigned according to share of total vehicle registrations.

'FEE ADJ' Worksheet

The registration, weight and user fees divided among various subcategories in sheet 'FEE SPLIT' are allocated to vehicle and weight classes according to the results of worksheet 'FEE ADJ', shown in Figure 23. Gross fee amounts charged to individual highway users in each of the three major subcategories are listed in cells A1:D24 according to vehicle weight class. These gross amounts are then converted to proportions of relative magnitude (referred to as "Fee Adj" in column F) to be allocated among vehicle and weight classes. Each "Fee Adj" value is then multiplied by the proportion of registrations by vehicle and weight class ('REG') to yield a base adjustment factor in columns G:K. Base adjustment factors are then weighted, again according to relative magnitude, to generate the final share allocation of a given fee to each vehicle/weight class. The following example illustrates the calculation of fee shares used for the "Weight Fees" subcategory.

1. Weight fees ranging from $36 for commercial vehicles between 8,001 and 10,000 pounds to $918 for vehicles registered above 75,000 pounds (cells C2:C24) are first assigned a proportional weighting of relative magnitude in cells ("Weight Fee Adj" cells F27:F50). If, for example, the two fees mentioned above were the only fees applicable to vehicles weighing either above or below 75,000 pounds, then a vehicle in the upper weight category would be assigned a proportional amount of motor carrier fees (per registration) of: $\$918 \div (\$918 + \$36) = 0.962$. The lighter vehicle category would be assigned a weight fee factor of 0.038. The actual factors applied to each weight category simply reflect the proportional difference between fees assessed at each weight level.
2. The "Weight Fee Adj" factors are multiplied by the share of registrations in each weight class for each of the major vehicle classes ('REG' V3:Z25) to assign a base adjustment factor in cells G27:K50. For example, if the two fee options in step 1 above were to be divided solely among single-unit trucks, vehicles in the 8,001 to 10,000 lb. weight class would be assigned a base adjustment factor of: $0.0077 \times 0.038 = 0.0003$ (share of all SU registrations × weight fee factor). The remaining vehicles in the heaviest weight class would be assigned a factor of: $0.0206 \times 0.962 = 0.0198$ in this hypothetical scenario.
3. Base adjustment factors for each vehicle class/weight class combination are assigned final allocation shares according to the same relative magnitude procedure used for fees in step 1. In the case of the "Weight Fees Allocation," final shares can be found in cells L27:P51. In the case of our hypothetical example, the lightest SU trucks would be assigned only 0.15 *percent* of weight fees collected, with the remainder assigned to the heavier vehicles (i.e. $SU_{8\text{-}10} = 0.0003 \div (0.0003 + 0.0198) = 0.0015$).

Figure 23: FEE ADJ Worksheet



Microsoft Excel - SMHCAS.xls

File Edit View Insert Format Tools Data Stats Window Help

A16 = 36-40

	RGW	REG Fees	WGT Fees	MC USE Fees	REG Fee Adj	AU ADJ	PU ADJ	BUS ADJ	SU ADJ	CMB ADJ	Auto Alloc	Pick-up Alloc	Bus Alloc	SU Alloc	CMB Alloc
2	0-8	8	-	50	0.0294	0.0210	0.0076	0.0000	0.0000	0.0000	0.7049	0.2548	0.0000	0.0000	0.0000
3	8-10	12	36	60	0.0441	0.0000	0.0000	0.0000	0.0003	0.0000	0.0000	0.0000	0.0004	0.0115	0.0000
4	10-12	12	63	70	0.0441	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0005	0.0035	0.0000
5	12-14	12	103	80	0.0441	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0002	0.0002	0.0007	0.0000
6	14-16	12	121	90	0.0441	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0016	0.0000
7	16-18	12	144	105	0.0441	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0011	0.0000
8	18-20	12	162	115	0.0441	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0002	0.0020	0.0000
9	20-22	12	198	125	0.0441	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0000
10	22-24	12	216	135	0.0441	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0009	0.0000
11	24-26	12	234	190	0.0441	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0004	0.0029	0.0001
12	26-28	12	288	287	0.0441	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	0.0005	0.0000
13	28-30	12	324	378	0.0441	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0005	0.0000
14	30-32	12	378	469	0.0441	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0004	0.0000
15	32-36	12	414	570	0.0441	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0005	0.0001
16	36-40	12	468	667	0.0441	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	0.0003	0.0001
17	40-45	12	522	665	0.0441	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0001
18	45-50	12	576	751	0.0441	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0004
19	50-55	12	630	828	0.0441	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0011	0.0003
20	55-60	12	684	902	0.0441	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0002
21	60-65	12	738	1,099	0.0441	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0001
22	65-70	12	792	1,175	0.0441	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001
23	70-75	12	864	1,895	0.0441	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	0.0001
24	75-80	12	918	2,217	0.0441	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0005	0.0034
25											**0.7052**	**0.2550**	**0.0041**	**0.0305**	**0.0053**
26															
27					WGT Fee Adj	AU ADJ	PU ADJ	BUS ADJ	SU ADJ	CMB ADJ	Auto Alloc	Pick-up Alloc	Bus Alloc	SU Alloc	CMB Alloc
28					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

HPMS IN | <Adj Factors> | VLT ADJ | FUEL ADJ | FEE SPLIT | FEE ADJ | ESAL

Ready NUM

The 'FEE ADJ' worksheet follows the same procedure for allocating registration fees, weight fees and motor carrier/use fees. However, in the latter case, the final share output is restricted to *commercial* registrations('REG' O31:S53), which excludes autos and pick-ups/SUVs. Motor carrier/use fees are thus split among the remaining three vehicle classes according to weight. Finally, because combination trucks require the registration of both truck and trailer, a reapportionment of the final allocation for commercial vehicles is included in columns R:U. Commercial share adjustments are recalculated for commercial vehicles after simply doubling the base share for combination trucks.

'FED FEES' Worksheet

Federal fees charged to commercial vehicles are allocated in much the same manner as state fees discussed above. However, with the exception of Federal Use Fees (worksheet 'FED FEES' range U1:AC9) that are charged according to weight and assigned in exactly the same manner as weight fees discussed in the previous section, alternate variables are required for the assignment of base adjustment factors for federal fees. Note also that federal fees are assumed to apply only to single-unit and combination trucks, and thus rely on the commercial registration matrix rather than all vehicle registrations in assigning registration shares.

The federal tire tax is allocated according to a matrix of weighted proportions based on vehicle configurations (i.e. number of tires by vehicle type estimated in 'CONFIG' U3:U13). These are

multiplied by the commercial registration matrix ('COMWGT' to assign base adjustment factors for the tire tax. As in Step 3 of the example above, these adjustment factors are distributed by dividing each individual factor by the sum of all factors in the relevant category. Total allocation factors by weight are listed in cells L2:L26 of the 'FED FEES' worksheet, and tire tax allocation factors by vehicle class are shown in cells A28:J28.

Figure 24: FED FEES Worksheet

Microsoft Excel - SMHCAS.xls

File Edit View Insert Format Tools Data Stats Window Help

F16 = =COMWGT!G76*CONFIG!$U$8

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	Tire Tax Allocation Factos by Weight Class													Federal Sales Tax Allocation F	
2		Single Unit			CMB Single Trailer			CMB Multi-trailer							Base Sc
3	Weight Class	SU2	SU3	SU4+	CS 4A	CS 5A	CS 6A	CM 5A	CM 6A	CM 7A	Total	Allocation Factor		Weight Class	SU
4	0-8,000 lbs.	0.0042	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0042	**0.0075**		0-8,000 lbs.	0.0025
5	8,000-10,000 lbs.	0.0074	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0074	**0.0132**		8,000-10,000 lbs.	0.0054
6	10,000-12,000 lbs	0.0030	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0030	**0.0054**		10,000-12,000 lbs.	0.0026
7	12,000-14,000 lbs	0.0013	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0014	**0.0024**		12,000-14,000 lbs.	0.0013
8	14,000-16,000 lbs	0.0022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0022	**0.0040**		14,000-16,000 lbs.	0.0025
9	16,000-18,000 lbs	0.0029	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0031	**0.0055**		16,000-18,000 lbs.	0.0039
10	18,000-20,000 lbs	0.0030	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0031	**0.0055**		18,000-20,000 lbs.	0.0043
11	20,000-22,000 lbs	0.0014	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0014	**0.0025**		20,000-22,000 lbs.	0.0021
12	22,000-24,000 lbs	0.0030	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0033	**0.0058**		22,000-24,000 lbs.	0.0055
13	24,000-26,000 lbs	0.0041	0.0000	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0043	**0.0077**		24,000-26,000 lbs.	0.0077
14	26,000-28,000 lbs	0.0027	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0029	**0.0051**		26,000-28,000 lbs.	0.0055
15	28,000-30,000 lbs	0.0016	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0019	**0.0034**		28,000-30,000 lbs.	0.0039
16	30,000-32,000 lbs	0.0007	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0008	**0.0015**		30,000-32,000 lbs.	0.0016
17	32,000-36,000 lbs	0.0008	0.0001	0.0001	0.0001	0.0002	0.0000	0.0000	0.0000	0.0000	0.0013	**0.0024**		32,000-36,000 lbs.	0.0032
18	36,000-40,000 lbs	0.0006	0.0001	0.0002	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0012	**0.0021**		36,000-40,000 lbs.	0.0035
19	40,000-45,000 lbs	0.0000	0.0003	0.0004	0.0002	0.0008	0.0000	0.0000	0.0000	0.0000	0.0017	**0.0030**		40,000-45,000 lbs.	0.0046
20	45,000-50,000 lbs	0.0009	0.0009	0.0012	0.0005	0.0009	0.0000	0.0000	0.0000	0.0000	0.0044	**0.0079**		45,000-50,000 lbs.	0.0171
21	50,000-55,000 lbs	0.0002	0.0007	0.0010	0.0003	0.0004	0.0000	0.0001	0.0001	0.0001	0.0029	**0.0052**		50,000-55,000 lbs.	0.0139
22	55,000-60,000 lbs	0.0003	0.0003	0.0005	0.0006	0.0017	0.0000	0.0002	0.0003	0.0003	0.0043	**0.0077**		55,000-60,000 lbs.	0.0081
23	60,000-65,000 lbs	0.0000	0.0004	0.0005	0.0004	0.0015	0.0000	0.0000	0.0000	0.0000	0.0029	**0.0051**		60,000-65,000 lbs.	0.0079
24	65,000-70,000 lbs	0.0001	0.0000	0.0000	0.0001	0.0011	0.0001	0.0002	0.0003	0.0003	0.0023	**0.0040**		65,000-70,000 lbs.	0.0010
25	70,000-75,000 lbs	0.0000	0.0000	0.0001	0.0001	0.0201	0.0000	0.0006	0.0010	0.0012	0.0232	**0.0412**		70,000-75,000 lbs.	0.0011
26	75,000-80,000 lbs	0.0002	0.0008	0.0011	0.0015	0.3789	0.0036	0.0224	0.0322	0.0387	0.4794	**0.8519**		75,000-80,000 lbs.	0.0220
27	Total	0.0405	0.0040	0.0057	0.0041	0.4058	0.0038	0.0236	0.0341	0.0410		**1.0000**			
28	ADJ Total	0.0720	0.0072	0.0101	0.0074	0.7211	0.0068	0.0419	0.0607	0.0729					
29															
30															
31															
32	Federal Tax Estimates														

FEE ADJ | ESAL ADJ | EXP ARRAY | LOCAL ADJ | HURF DIST | FED FEES | <Ref

Ready NUM

The federal sales tax is distributed among commercial vehicles in 'FED FEES' by estimated vehicle value ('TRK VAL') and the share of VLT attributed to single-unit and combination trucks ('VLT ADJ'), under the assumption that the valuation-based VLT estimate is the closest proxy for federal sales tax among state fees. Scaled valuations of single-unit and combination trucks by registered weight, calculated in worksheet 'TRK VAL', are copied in cells O4:P26. A trailer adjustment is made in cells Q4:R26 to adjust total shares by vehicle and weight class according to the truck and trailer split estimated in 'VLT ADJ' D34:D36. The final share of federal sales tax allocated to single-unit trucks amounts to the valuation-adjusted share of registrations multiplied by the "truck" percentage of VLT. The share allocated to combination trucks includes the "truck" share of VLT allocated to combination trucks, plus the valuation-adjusted share of registrations multiplied by the estimated share "trailer" VLT.[25]

'ESAL ADJ' Worksheet

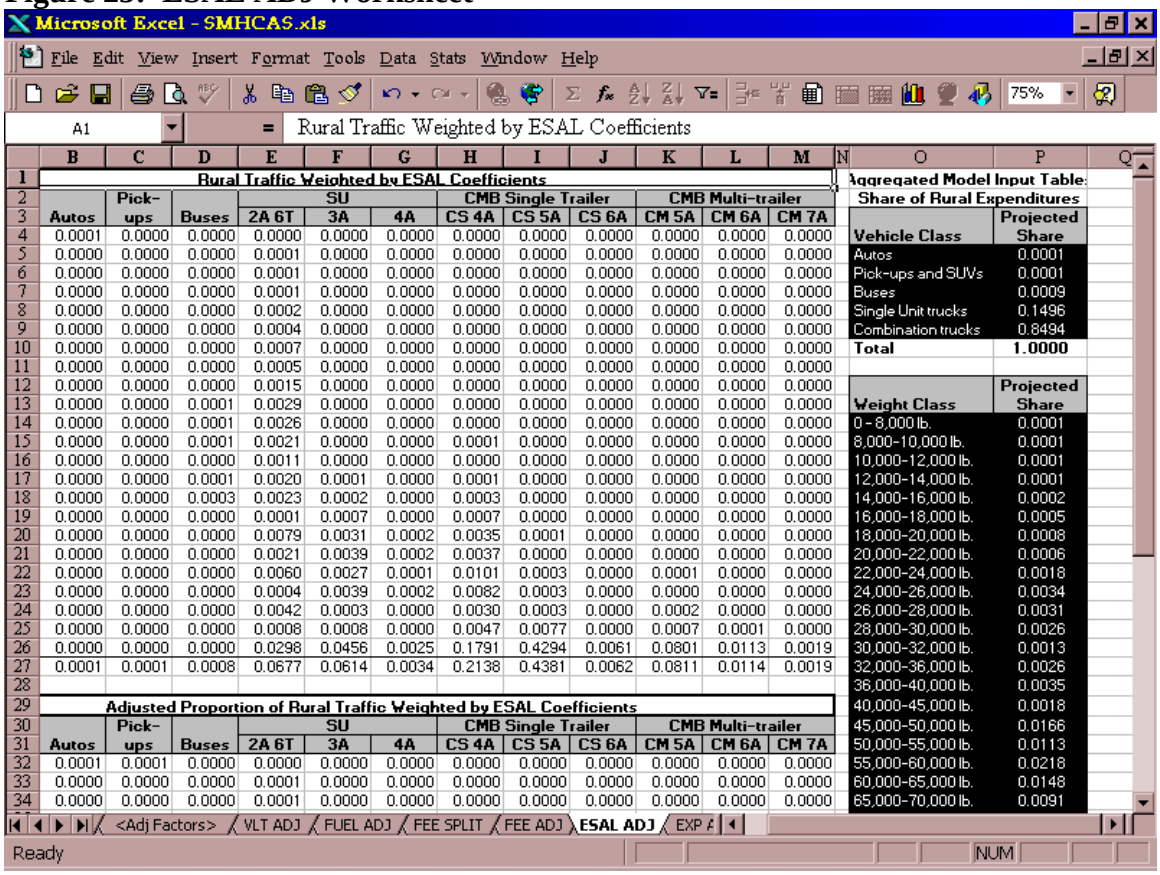
The allocation of strength-driven expenditures in the SMHCAS is dependent upon two variables: the amount of traffic on non-capacity-driven (e.g. rural) roadways and the loads that various

[25] References to VLT in this section apply only to proportional shares, *not* specific dollar amounts.

vehicles place on these roadways. These two variables are allocated among vehicle and weight classes in the 'RTRAF WGT' and 'CONFIG' worksheets respectively. Final allocation factors that combine the traffic and load variables are calculated in the 'ESAL ADJ' worksheet.

Each combination of vehicle and weight classes is assigned an "ESAL Adjustment" (i.e. ESAL-weighted share of rural traffic) in cells B4:M27. Each adjustment factor is calculated by multiplying the share of rural traffic and the ESAL load attributable to that vehicle class/weight combination. For example, autos weighing less than 8,000 lb. (virtually all autos registered) are assigned an ESAL adjustment of 0.0001, which corresponds to the share of rural traffic attributable to autos ('RTRAF WGT' B4 = 0.5812) multiplied by the ESAL factor for autos in the lightest weight class ('CONFIG' B18 = 0.0001).

Figure 25: ESAL ADJ Worksheet



Microsoft Excel - SMHCAS.xls

File Edit View Insert Format Tools Data Stats Window Help

A1 = Rural Traffic Weighted by ESAL Coefficients

Rural Traffic Weighted by ESAL Coefficients

	Autos	Pick-ups	Buses	SU 2A 6T	SU 3A	SU 4A	CMB Single Trailer CS 4A	CMB Single Trailer CS 5A	CMB Single Trailer CS 6A	CMB Multi-trailer CM 5A	CMB Multi-trailer CM 6A	CMB Multi-trailer CM 7A
4	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	0.0000	0.0000	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	0.0000	0.0000	0.0000	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	0.0000	0.0000	0.0000	0.0007	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	0.0000	0.0000	0.0000	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	0.0000	0.0000	0.0000	0.0015	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	0.0000	0.0000	0.0001	0.0029	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	0.0000	0.0000	0.0001	0.0026	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	0.0000	0.0000	0.0001	0.0021	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
16	0.0000	0.0000	0.0000	0.0011	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	0.0000	0.0000	0.0001	0.0020	0.0001	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
18	0.0000	0.0000	0.0003	0.0023	0.0002	0.0000	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000
19	0.0000	0.0000	0.0000	0.0001	0.0007	0.0000	0.0007	0.0000	0.0000	0.0000	0.0000	0.0000
20	0.0000	0.0000	0.0000	0.0079	0.0031	0.0002	0.0035	0.0001	0.0000	0.0000	0.0000	0.0000
21	0.0000	0.0000	0.0000	0.0021	0.0039	0.0002	0.0037	0.0000	0.0000	0.0000	0.0000	0.0000
22	0.0000	0.0000	0.0000	0.0060	0.0027	0.0001	0.0101	0.0003	0.0000	0.0001	0.0000	0.0000
23	0.0000	0.0000	0.0000	0.0004	0.0039	0.0002	0.0082	0.0003	0.0000	0.0000	0.0000	0.0000
24	0.0000	0.0000	0.0000	0.0042	0.0003	0.0000	0.0030	0.0003	0.0000	0.0002	0.0000	0.0000
25	0.0000	0.0000	0.0000	0.0008	0.0008	0.0000	0.0047	0.0077	0.0000	0.0007	0.0001	0.0000
26	0.0000	0.0000	0.0000	0.0298	0.0456	0.0025	0.1791	0.4294	0.0061	0.0801	0.0113	0.0019
27	0.0001	0.0001	0.0008	0.0677	0.0614	0.0034	0.2138	0.4381	0.0062	0.0811	0.0114	0.0019

Adjusted Proportion of Rural Traffic Weighted by ESAL Coefficients

	Autos	Pick-ups	Buses	SU 2A 6T	SU 3A	SU 4A	CMB Single Trailer CS 4A	CMB Single Trailer CS 5A	CMB Single Trailer CS 6A	CMB Multi-trailer CM 5A	CMB Multi-trailer CM 6A	CMB Multi-trailer CM 7A
32	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
33	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
34	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Aggregated Model Input Table: Share of Rural Expenditures

Vehicle Class	Projected Share
Autos	0.0001
Pick-ups and SUVs	0.0001
Buses	0.0009
Single Unit trucks	0.1496
Combination trucks	0.8494
Total	1.0000

Weight Class	Projected Share
0 - 8,000 lb.	0.0001
8,000-10,000 lb.	0.0001
10,000-12,000 lb.	0.0001
12,000-14,000 lb.	0.0001
14,000-16,000 lb.	0.0002
16,000-18,000 lb.	0.0005
18,000-20,000 lb.	0.0008
20,000-22,000 lb.	0.0006
22,000-24,000 lb.	0.0018
24,000-26,000 lb.	0.0034
26,000-28,000 lb.	0.0031
28,000-30,000 lb.	0.0026
30,000-32,000 lb.	0.0013
32,000-36,000 lb.	0.0026
36,000-40,000 lb.	0.0035
40,000-45,000 lb.	0.0018
45,000-50,000 lb.	0.0166
50,000-55,000 lb.	0.0113
55,000-60,000 lb.	0.0218
60,000-65,000 lb.	0.0148
65,000-70,000 lb.	0.0091

<Adj Factors> VLT ADJ FUEL ADJ FEE SPLIT FEE ADJ ESAL ADJ EXP

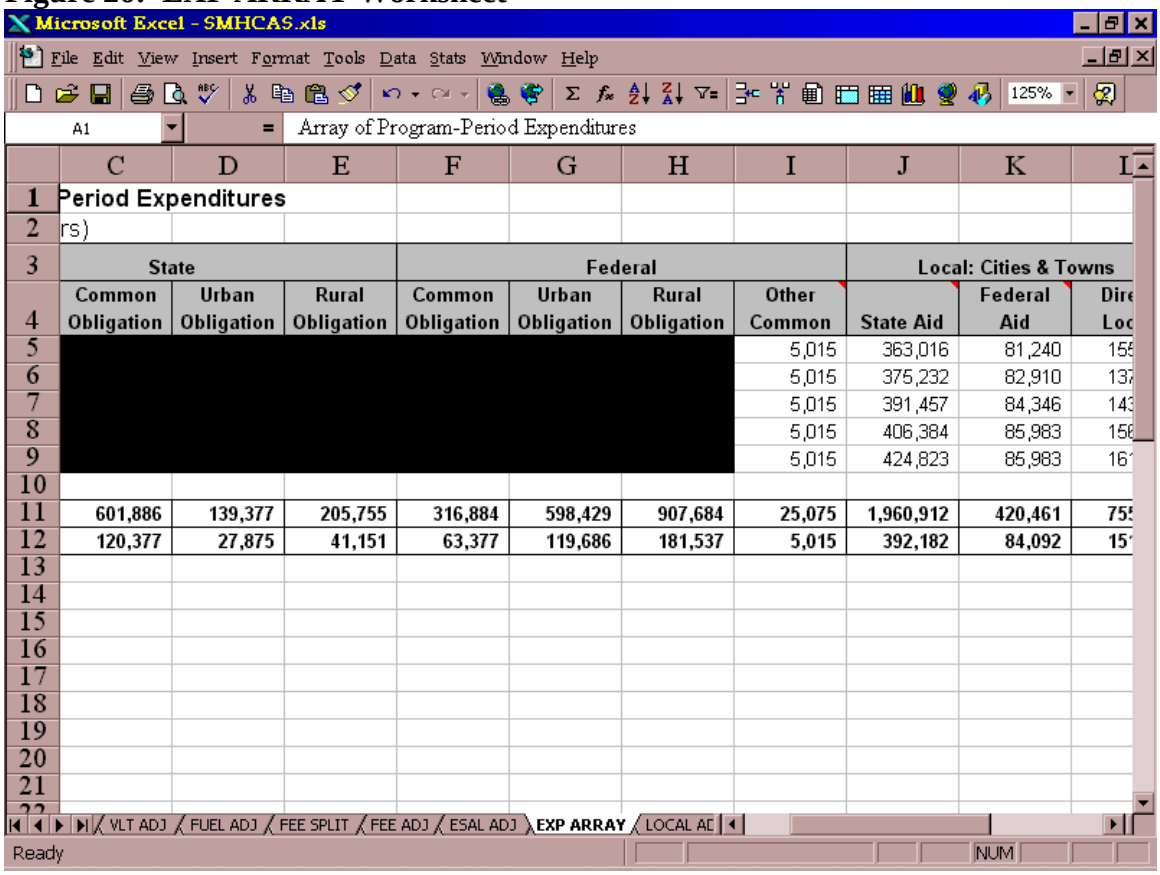
Ready NUM

Due to rounding errors, all of these products do not add up to 100 percent. Therefore, a second matrix (cells A29:M55) scales each ESAL Adjustment to 1.000 so that all rural traffic is accounted for. Summary totals are then tallied for vehicle classes (O2:P10) and weight classes (O12:P37). Summary totals for vehicle classes are calculated by summing the column(s) pertaining to each vehicle class in the adjusted matrix (A29:M55), and weight class summary totals represent the sum of each row in the same matrix. The summary values are used to allocate strength-driven expenditures (e.g. rural construction, pavement maintenance, etc.) among vehicle and weight classes in the 'EXP OUT' worksheet.

'EXP ARRAY'

Spending program totals from 'EXPEND IN' are aggregated in appropriate categories in worksheet 'EXP ARRAY'. This is done to minimize the more complicated calculations in 'EXP OUT', and to format expenditures in a way that simplified writing of formulas that reference these data. Note that the darkened sections in Figure 26 contain no data. The state Obligation Program is allocated based on five-year totals, so relevant data are compiled only in the "Total" and "Average" sections (rows 11 and 12). Cost responsibility outputs in worksheet 'EXP OUT' are program period averages from row L of the 'EXP ARRAY' sheet.

Figure 26: EXP ARRAY Worksheet



The following table lists the 'EXP IN' data subtotaled in each section of 'EXP ARRAY'.

Table 15: Expenditure Array Data References

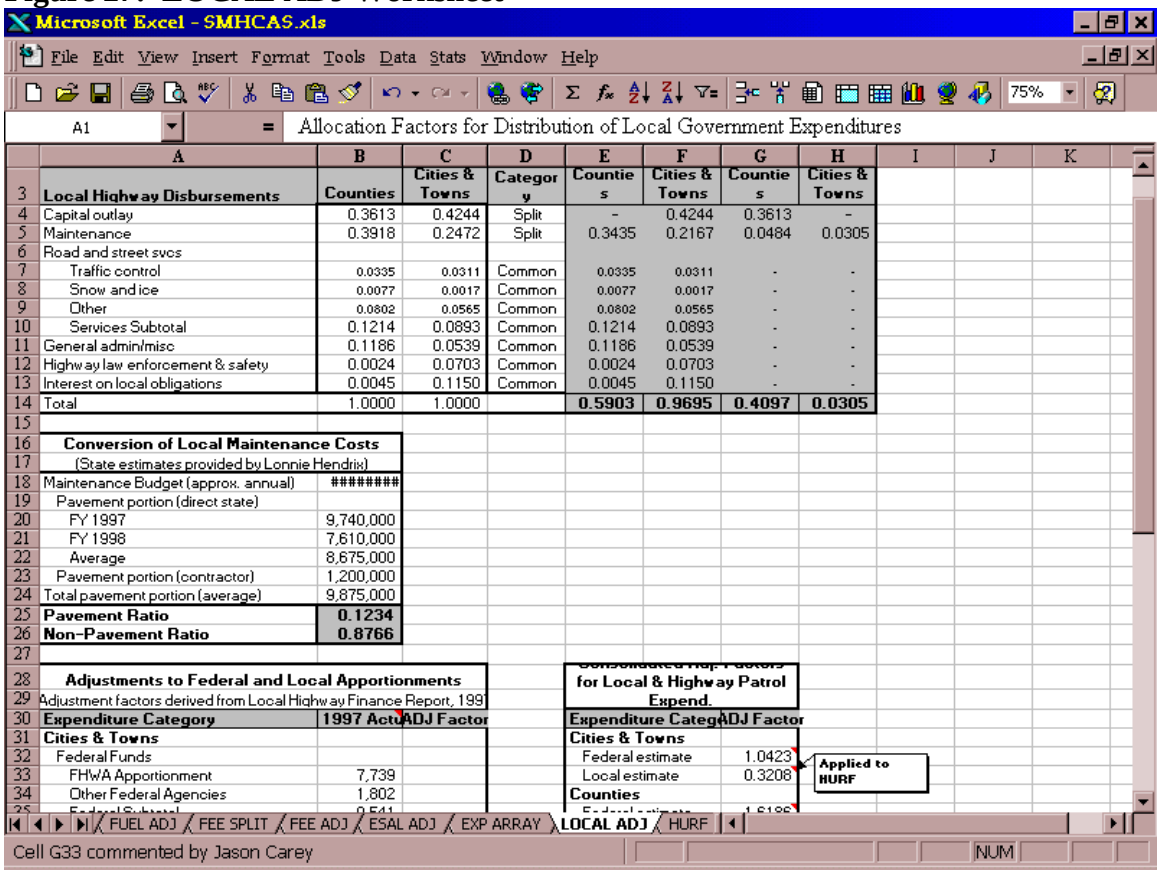
'EXP ARRAY' Header	'EXP IN' Data Referenced
State: Overhead & Admin.	• State Operating Program (HURF) • Debt service, RARF & HURF • Land, buildings, improvements • DPS transfers (highway patrol)
State: Common Obligation	• "State" portion of ADOT's 5-Year Obligation Program expenditures classified as "Route 999" (see Appendix B)
State: Urban Obligation	• "State" portion of ADOT's 5-Year Obligation Program expenditures classified as "Urban" routes
State: Rural Obligation	• "State" portion of ADOT's 5-Year Obligation Program expenditures classified as "Rural" Routes
Federal: Common Obligation	• "State" portion of ADOT's 5-Year Obligation Program expenditures classified as "Route 999" (see Appendix B)
Federal: Urban Obligation	• "State" portion of ADOT's 5-Year Obligation Program expenditures classified as "Urban" routes
Federal: Rural Obligation	• "State" portion of ADOT's 5-Year Obligation Program expenditures classified as "Rural" Routes
Federal: Other Common	• Federal transfers to state highway patrol
Local: Cities & Towns: State Aid	• "Cities & Towns" portion of State Aid to Local Governments from the HURF • "MAG/PAG" portion of State Aid to Local Governments from the HURF
Local: Cities & Towns: Federal Aid	• Federal apportionments for "Urban Programmable" expenditures (e.g. MAG)
Local: Cities & Towns: Direct Local	• MAG and PAG Regional Capital Improvements Plans • "Cities" portion of local expenditure estimate (sheet 'LOCAL ADJ')
Local: Counties: State Aid	• "Counties" portion of State Aid to Local Governments from the HURF
Local: Counties: Federal Aid	• Federal apportionments for "Other Local" expenditures
Local: Counties: Direct Local	• "Counties" portion of local expenditure estimate (sheet 'LOCAL ADJ')

Estimating Expenditures by Local Governments

Variables such as State Aid to Local Governments from the HURF are aggregated totals used by local governments for a variety of transportation projects. As such, these expenditures can not be allocated to a single category (e.g. capacity or strength-driven). Furthermore, it is expected that spending varies by level of government, with municipalities devoting more resources to capacity-driven projects than county governments. For these reasons, local expenditures have been subdivided into various categories in worksheet 'LOCAL ADJ'.

The top matrix on worksheet 'LOCAL ADJ' (cells A3:H14) assigns percentages of local government expenditures to various categories, based on ADOT's Survey of Local Government Expenditures. Separate calculations are made for "Cities and Towns" and for "Counties." Column D assigns each of the various types of expenditures to an allocation category (capacity/strength-driven or common). With the exception of capital outlays and maintenance expenditures, all other local expenditures are assumed to be common costs.

Figure 27: LOCAL ADJ Worksheet



Capital outlays are divided according to level of government, with outlays by cities and towns allocated as capacity-driven and outlays by counties considered strength-driven. Maintenance expenditures are split into "pavement" and "non-pavement" totals, based on ADOT maintenance estimates shown in A16:B26. Non-pavement maintenance is considered a common cost, whereas pavement maintenance is considered a function of weight. Cells E2:H14 arrange the

percentages of local expenditures according to these splits by primary method of distribution. As indicated in Figure 27, the result is an allocation of expenditures made by cities and towns almost exclusively according to VMT (i.e. capacity-driven and common costs). County-level expenditures are more evenly split, due to the greater share of weight-driven costs in the county split.

The 'LOCAL ADJ' worksheet also calculates coefficients used to adjust the locally funded portions of local expenditures. These estimates are made because available forecasts only project state aid to local governments and federal apportionments from the transportation fund. Because local governments have a considerable amount of discretion in the use of other funding sources for transportation purposes, the state aid and federal apportionment projections do not capture the full scope of local spending on highway-related projects (as an example, refer to the 1997 breakdown of local highway expenditures by source of funds in cells A28:C62).

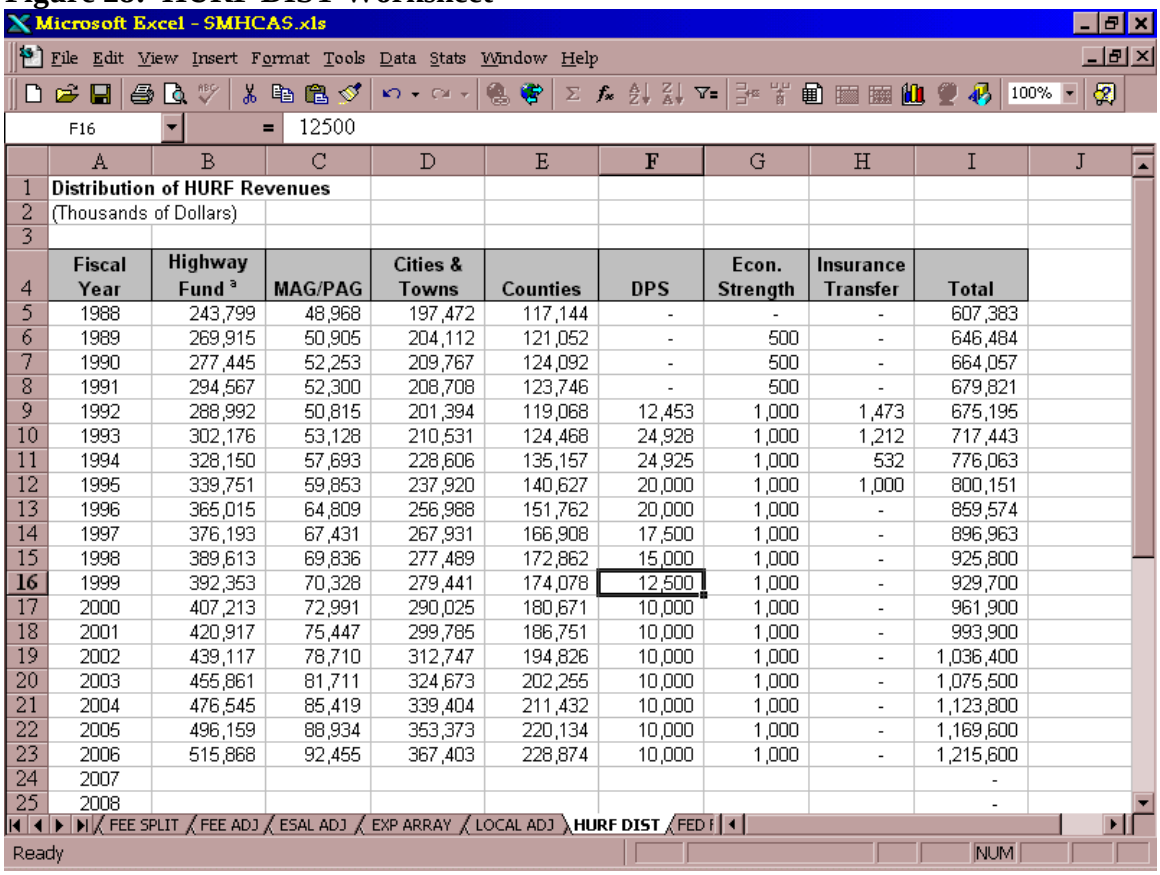
Adjustment factors have therefore been calculated for local expenditures of local and federal funds, based on a percentage of the HURF distribution forecast and federal apportionments by level of government. Federally-funded local expenditures are thus revised upward to account for funding by other agencies. This adjustment is made according to a factor applied to the federal apportionment to local governments (cells G32, G35). Direct local expenditures are estimated based on a percentage of State Aid for the forecast period. Current estimates of direct local expenditures range from roughly 20 percent of State Aid to Counties to 32 percent of State Aid to Cities and Towns.

It should be noted that most of the local expenditure estimates are made using the Survey of Local Government Expenditures conducted in 1997. It is highly likely that the distribution of these expenditures and the share contributed by each funding source will fluctuate considerably. As new surveys are produced, it is recommended that the data in cells A31:C62 be updated, preferably with averages from a period of three or more years. Such an adjustment is expected to enhance the reliability of the SMHCAS local expenditure forecast considerably.

'HURF DIST' Worksheet

The 'HURF DIST' worksheet is intended primarily as a reference for the update of the 'EXP IN' worksheet, cell range G32:K35. However, the data contained in the 'HURF DIST' worksheet are expected to change regularly, as ADOT updates future year budgets. The 'HURF DIST' worksheet has been included in this section as a reminder that occasional updates will be necessary. All current data were obtained from *the Update of Arizona Highway Revenues Review Study*, Section 2, page 15. Appropriate totals should be entered for fiscal year 2000 and beyond in the appropriate cells as these data become available. The worksheet has space for annual entries through fiscal 2020.

Figure 28: HURF DIST Worksheet



Microsoft Excel - SMHCAS.xls

File Edit View Insert Format Tools Data Stats Window Help

F16 = 12500

	A	B	C	D	E	F	G	H	I	J
1	**Distribution of HURF Revenues**									
2	(Thousands of Dollars)									
3										
4	**Fiscal Year**	**Highway Fund [a]**	**MAG/PAG**	**Cities & Towns**	**Counties**	**DPS**	**Econ. Strength**	**Insurance Transfer**	**Total**	
5	1988	243,799	48,968	197,472	117,144	-	-	-	607,383	
6	1989	269,915	50,905	204,112	121,052	-	500	-	646,484	
7	1990	277,445	52,253	209,767	124,092	-	500	-	664,057	
8	1991	294,567	52,300	208,708	123,746	-	500	-	679,821	
9	1992	288,992	50,815	201,394	119,068	12,453	1,000	1,473	675,195	
10	1993	302,176	53,128	210,531	124,468	24,928	1,000	1,212	717,443	
11	1994	328,150	57,693	228,606	135,157	24,925	1,000	532	776,063	
12	1995	339,751	59,853	237,920	140,627	20,000	1,000	1,000	800,151	
13	1996	365,015	64,809	256,988	151,762	20,000	1,000	-	859,574	
14	1997	376,193	67,431	267,931	166,908	17,500	1,000	-	896,963	
15	1998	389,613	69,836	277,489	172,862	15,000	1,000	-	925,800	
16	1999	392,353	70,328	279,441	174,078	12,500	1,000	-	929,700	
17	2000	407,213	72,991	290,025	180,671	10,000	1,000	-	961,900	
18	2001	420,917	75,447	299,785	186,751	10,000	1,000	-	993,900	
19	2002	439,117	78,710	312,747	194,826	10,000	1,000	-	1,036,400	
20	2003	455,861	81,711	324,673	202,255	10,000	1,000	-	1,075,500	
21	2004	476,545	85,419	339,404	211,432	10,000	1,000	-	1,123,800	
22	2005	496,159	88,934	353,373	220,134	10,000	1,000	-	1,169,600	
23	2006	515,868	92,455	367,403	228,874	10,000	1,000	-	1,215,600	
24	2007								-	
25	2008								-	

FEE SPLIT | FEE ADJ | ESAL ADJ | EXP ARRAY | LOCAL ADJ | HURF DIST | FED F

Ready NUM

Reference Worksheets

Unlike the "Adjustment" worksheets of the previous section, the "Reference" worksheets of the SMHCAS will require infrequent updates or no manipulation at all. With the exception of worksheet 'REG', the worksheets of the reference section contain matrix arrays and formulas that are simply used to manipulate or convert existing data into a form more readily accessibly for generating model outputs.

'REG' Worksheet

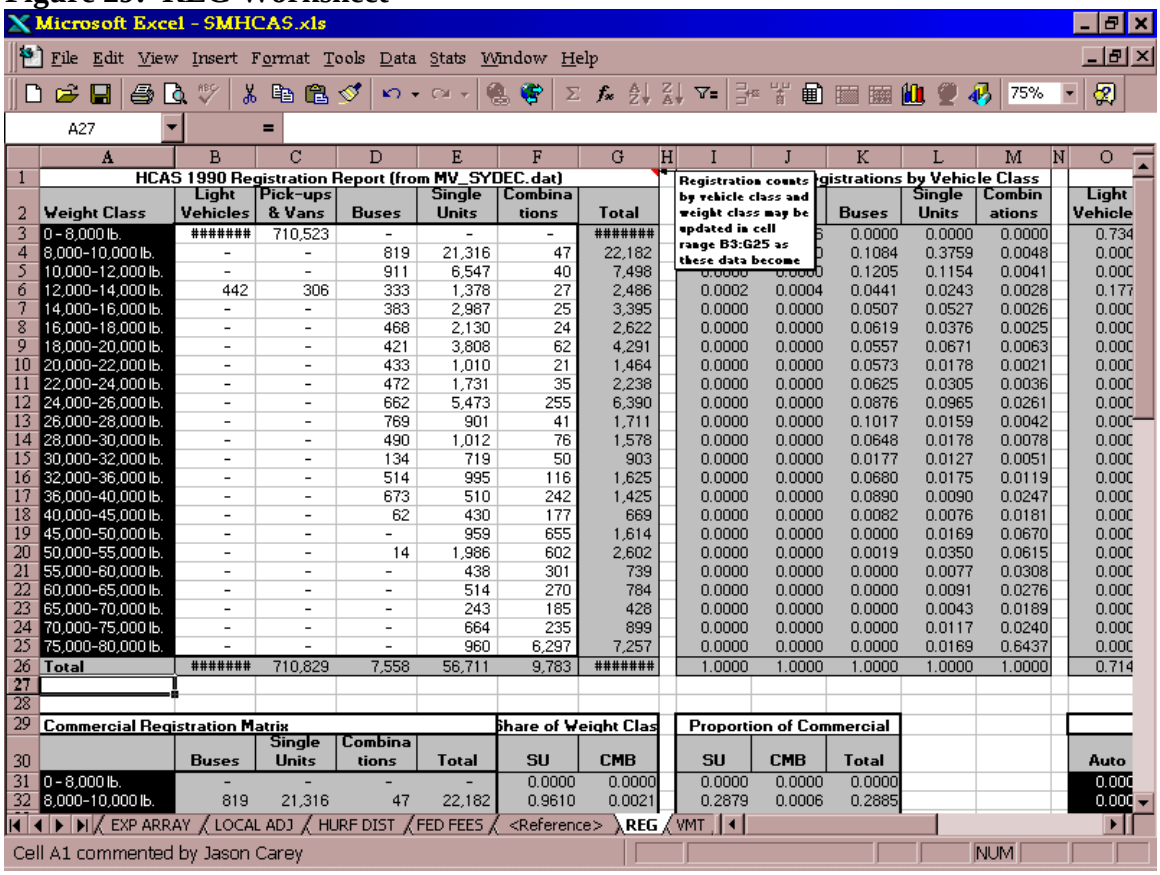
Registration counts by vehicle and weight class are distributed in proportional terms in worksheet 'REG', illustrated in Figure 29 below. Counts are entered in cell range B3:F25 according to major vehicle class and registered weight. The registration counts used in the SMHCAS have been imported from the AzHCAS model, file MV_SYDEC.DAT. Both models use calendar year 1990 as a reference point from which to allocate the distribution of vehicle registrations. Due to the difficulty inherent in collecting these data, it is expected that new registration count distributions will be collected infrequently. However, at such time as new data become available, cells B3:F25 (or the corresponding references in the AzHCAS) should be updated. Because individual counts are susceptible to greater fluctuations in reported data, it is recommended that future updates of the registration counts be incorporated a cumulative manner

(i.e. new counts should be added to the old and distributed according to the larger, cumulative totals).

Raw counts in cells B3:F25 are converted into proportional shares of all registrations in the accompanying matrices. Cells I3:M25 distribute registrations within specific vehicle classes, with each vehicle class totaling 100 percent (e.g. cell I3 refers to the count of light vehicle registrations in the 0 to 8,000 lb. weight class, divided by the total count of light vehicle registrations). Cells O3:S25 follow the same pattern, but distribute shares of registrations within a given weight class to different vehicle classes (e.g. cell O3 indicates that "light vehicles made up 73.5 percent of all registrations from 0 to 8,000 lb.). Matrix V3:AA25 distributes shares of *all* registrations according to each vehicle/weight class combination. For example, the proportion in cell O3 is equal to cell B3 divided by the sum of all registrations (B3:F25). This matrix is references for the allocations of VLT (see 'VLT ADJ'), as well as common revenues such as operator license and title fees (see 'FEE SPLIT').

The 'REG' worksheet also contains data used in the distribution of weight-related commercial fees. A "Commercial Registration" matrix (cells A29:E54) subtotals bus and truck registrations for the distribution of weight fees and motor carrier fees. These counts are also converted to proportions (commercial), located in cell matrix O29:T54. The commercial registration matrix is used with the magnitude-adjusted schedule of fees (refer to the 'FEE ADJ' worksheet) to distribute such items as the motor carrier tax, apportioned vehicle registrations and the federal use fee. More detail regarding the distribution of these fees can be found in worksheets 'FEE SPLIT', 'FEE ADJ' and 'FED FEES'.

Figure 29: REG Worksheet



Microsoft Excel - SMHCAS.xls

File Edit View Insert Format Tools Data Stats Window Help

A27 =

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	HCAS 1990 Registration Report (from MV_SYDEC.dat)								Registration counts by vehicle class and weight class may be updated in cell range B3:G25 as these data become		gistrations by Vehicle Class				
2	Weight Class	Light Vehicles	Pick-ups & Vans	Buses	Single Units	Combina tions	Total				Buses	Single Units	Combin ations		Light Vehicle
3	0 - 8,000 lb.	#######	710,523	-	-	-	#######				0.0000	0.0000	0.0000		0.734
4	8,000-10,000 lb.	-	-	819	21,316	47	22,182				0.1084	0.3759	0.0048		0.000
5	10,000-12,000 lb.	-	-	911	6,547	40	7,498				0.1205	0.1154	0.0041		0.000
6	12,000-14,000 lb.	442	306	333	1,378	27	2,486		0.0002	0.0004	0.0441	0.0243	0.0028		0.177
7	14,000-16,000 lb.	-	-	383	2,987	25	3,395		0.0000	0.0000	0.0507	0.0527	0.0026		0.000
8	16,000-18,000 lb.	-	-	468	2,130	24	2,622		0.0000	0.0000	0.0619	0.0376	0.0025		0.000
9	18,000-20,000 lb.	-	-	421	3,808	62	4,291		0.0000	0.0000	0.0557	0.0671	0.0063		0.000
10	20,000-22,000 lb.	-	-	433	1,010	21	1,464		0.0000	0.0000	0.0573	0.0178	0.0021		0.000
11	22,000-24,000 lb.	-	-	472	1,731	35	2,238		0.0000	0.0000	0.0625	0.0305	0.0036		0.000
12	24,000-26,000 lb.	-	-	662	5,473	255	6,390		0.0000	0.0000	0.0876	0.0965	0.0261		0.000
13	26,000-28,000 lb.	-	-	769	901	41	1,711		0.0000	0.0000	0.1017	0.0159	0.0042		0.000
14	28,000-30,000 lb.	-	-	490	1,012	76	1,578		0.0000	0.0000	0.0648	0.0178	0.0078		0.000
15	30,000-32,000 lb.	-	-	134	719	50	903		0.0000	0.0000	0.0177	0.0127	0.0051		0.000
16	32,000-36,000 lb.	-	-	514	995	116	1,625		0.0000	0.0000	0.0680	0.0175	0.0119		0.000
17	36,000-40,000 lb.	-	-	673	510	242	1,425		0.0000	0.0000	0.0890	0.0090	0.0247		0.000
18	40,000-45,000 lb.	-	-	62	430	177	669		0.0000	0.0000	0.0082	0.0076	0.0181		0.000
19	45,000-50,000 lb.	-	-	-	959	655	1,614		0.0000	0.0000	0.0000	0.0169	0.0670		0.000
20	50,000-55,000 lb.	-	-	14	1,986	602	2,602		0.0000	0.0000	0.0019	0.0350	0.0615		0.000
21	55,000-60,000 lb.	-	-	-	438	301	739		0.0000	0.0000	0.0000	0.0077	0.0308		0.000
22	60,000-65,000 lb.	-	-	-	514	270	784		0.0000	0.0000	0.0000	0.0091	0.0276		0.000
23	65,000-70,000 lb.	-	-	-	243	185	428		0.0000	0.0000	0.0000	0.0043	0.0189		0.000
24	70,000-75,000 lb.	-	-	-	664	235	899		0.0000	0.0000	0.0000	0.0117	0.0240		0.000
25	75,000-80,000 lb.	-	-	-	960	6,297	7,257		0.0000	0.0000	0.0000	0.0169	0.6437		0.000
26	Total	#######	710,829	7,558	56,711	9,783	#######		1.0000	1.0000	1.0000	1.0000	1.0000		0.714
27															
28															
29	Commercial Registration Matrix					Share of Weight Clas			Proportion of Commercial						
30		Buses	Single Units	Combina tions	Total	SU	CMB		SU	CMB	Total				Auto
31	0 - 8,000 lb.	-	-	-	-	0.0000	0.0000		0.0000	0.0000	0.0000				0.000
32	8,000-10,000 lb.	819	21,316	47	22,182	0.9610	0.0021		0.2879	0.0006	0.2885				0.000

EXP ARRAY | LOCAL ADJ | HURF DIST | FED FEES | <Reference> | REG | VMT

Cell A1 commented by Jason Carey

NUM

Traffic Distribution Worksheets: 'VMT', 'RVMT', 'UVMT'

The traffic inputs from worksheet 'HPMS IN' are reallocated in a series of reference sheets, in which growth projections according to share of travel are used to estimate the distribution of VMT for the program period. Worksheets 'UVMT' and 'RVMT' distribute proportional shares of travel among vehicle classes to urban and rural roadways respectively. These shares are then assigned to various weight classes according to the total registration matrix discussed above.[26] Urban and rural traffic are weighted according to the distribution of total traffic in worksheet 'HPMS IN', and the weighted shares are combined in worksheet 'VMT'.

All three worksheets follow the same traffic forecasting methodology. Cells A4:N7 refer directly to worksheet 'HPMS IN', subtotaling rural and urban shares of traffic (or both in the case of 'VMT') by vehicle class for each period. These shares are then averaged in range B9:N9. Forecasts are made from the average share of traffic over the three periods, rather than the most recent year, in order to lessen the influence of variance caused by outlier measurements in a single period.

[26] Note that the conversion method assumes the same average travel distance for all vehicles of a given class, *regardless* of weight.

A number of constraints are applied to the growth rate for each vehicle class' share of traffic for the same reason. Three separate annual growth rates are calculated in cells B11:N13; traffic share growth over the entire three periods, during the earliest period only and during the latest period only. These three separate growth rates are then averaged to determine a baseline growth rate for projecting the future share of traffic by vehicle class, located in cells B14:N14. However, large swings in the share of traffic measured for vehicles with very small percentages of total travel (i.e. outliers in very small data sets) required a restraining function that recalculates any measurement of greater than 2 or less than 1 in the baseline growth rate.[27] Adjusted average growth rates used for the final forecast of traffic distributions are located in cells B15:N15.

Figure 30: VMT Worksheet

Microsoft Excel - SMHCAS.xls

File Edit View Insert Format Tools Data Stats Window Help

A1 = Base Period Percentage of Total VMT

	A	B	C	D	E	F	G	H	I	J
1	Base Period Percentage of Total VMT									
2										
3							SU			CMB Single
4	Year	MC	AUTO	LT	BUS	2A 6T	3A	4A	CS 4A	CS 5A
5	1987	0.0042	0.5486	0.2917	0.0056	0.0470	0.0092	0.0003	0.0066	0.07
6	1992	0.0082	0.6193	0.2647	0.0059	0.0275	0.0085	0.0007	0.0124	0.04
7	1997	0.0056	0.5789	0.2634	0.0051	0.0321	0.0123	0.0039	0.0219	0.06
8										
9	Average Share	0.0060	0.5823	0.2733	0.0055	0.0355	0.0100	0.0016	0.0136	0.08
10										
11	Annual Growth	1.0272	1.0552	0.9058	0.9060	0.6844	1.3402	15.3718	3.3139	0.84
12	Earliest Period	1.1187	1.1284	0.9134	1.0435	0.5852	0.9203	2.7573	1.8806	0.59
13	Latest Period	0.9390	0.9346	0.9948	0.8715	1.1699	1.4451	5.5896	1.7662	1.40
14	Average Growth	1.0283	1.0394	0.9380	0.9404	0.8132	1.2352	7.9062	2.3202	0.98
15	Adjusted Average	1.0283	1.0394	0.9380	0.9404	0.8132	1.2352	7.9062	2.3202	0.98
16										
17	Projected Percentage of VMT by Vehicle Class									
18	Forecast Year:	2002.5								
19							SU			CMB Single
20		MC	AUTO	LT	BUS	2A 6T	3A	4A	CS 4A	CS 5A
21	Share	0.0060	0.5864	0.2701	0.0055	0.0342	0.0104	0.0023	0.0159	0.08
22	Adjusted Share	0.0060	0.5846	0.2693	0.0054	0.0341	0.0103	0.0023	0.0158	0.08
23										
24										
25										
26										

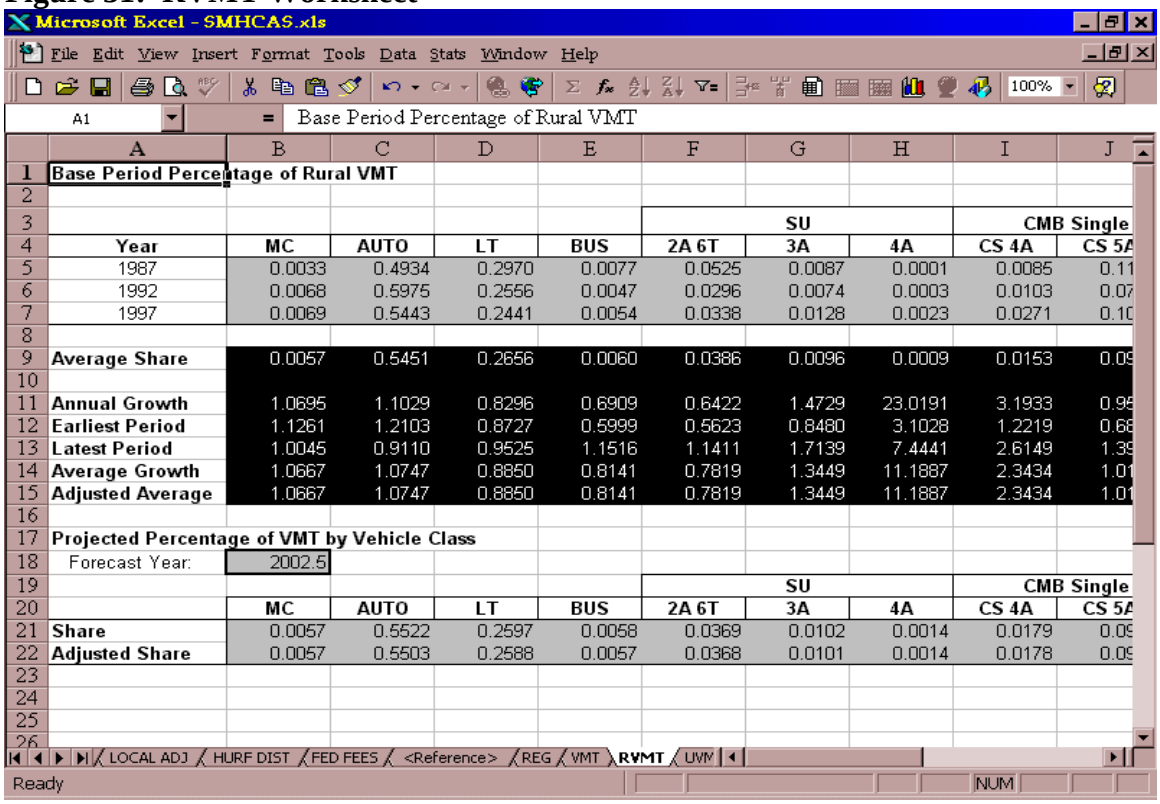
LOCAL ADJ | HURF DIST | FED FEES | <Reference> | REG | VMT | RVMT | UVM

Ready NUM

Initial shares of traffic for the forecast period are obtained by first multiplying the adjusted average growth rate (row 15) by an inverse exponent of the number of years from the midpoint of the base period to the midpoint of the forecast, and then by the average share of traffic. All forecast shares are then scaled to total 100 percent in the "Adjusted Share" (row 22) used for final allocation of revenues and expenditures.

[27] Growth rates are calculated in terms of 1.00 equivalent to no change in the share of traffic measured. Rates of less than 1.00 imply "negative" growth (i.e. a declining share of traffic) and rates of 2.00 or more would double the share of traffic allocated to a given vehicle class *on an annual basis*. While shifts of some magnitude are expected in the overall distribution of traffic over time, baseline rates in either of these categories were adjusted to lessen the occasional unrealistically large impact of small vehicle classes on large classes' share of traffic.

Figure 31: RVMT Worksheet



Microsoft Excel - SMHCAS.xls

File Edit View Insert Format Tools Data Stats Window Help

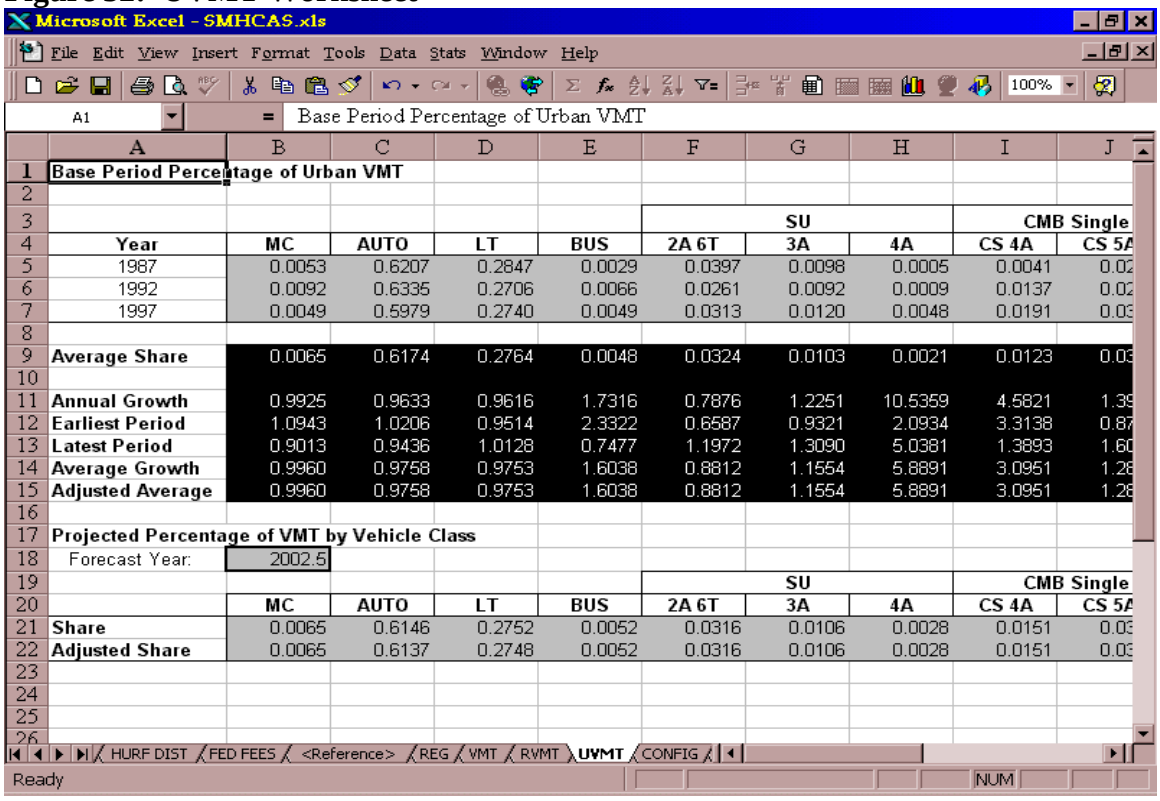
A1 = Base Period Percentage of Rural VMT

	A	B	C	D	E	F	G	H	I	J
1	Base Period Percentage of Rural VMT									
2										
3							SU			CMB Single
4	Year	MC	AUTO	LT	BUS	2A 6T	3A	4A	CS 4A	CS 5A
5	1987	0.0033	0.4934	0.2970	0.0077	0.0525	0.0087	0.0001	0.0085	0.11
6	1992	0.0068	0.5975	0.2556	0.0047	0.0296	0.0074	0.0003	0.0103	0.07
7	1997	0.0069	0.5443	0.2441	0.0054	0.0338	0.0128	0.0023	0.0271	0.10
8										
9	Average Share	0.0057	0.5451	0.2656	0.0060	0.0386	0.0096	0.0009	0.0153	0.09
10										
11	Annual Growth	1.0695	1.1029	0.8296	0.6909	0.6422	1.4729	23.0191	3.1933	0.95
12	Earliest Period	1.1261	1.2103	0.8727	0.5999	0.5623	0.8480	3.1028	1.2219	0.68
13	Latest Period	1.0045	0.9110	0.9525	1.1516	1.1411	1.7139	7.4441	2.6149	1.39
14	Average Growth	1.0667	1.0747	0.8850	0.8141	0.7819	1.3449	11.1887	2.3434	1.01
15	Adjusted Average	1.0667	1.0747	0.8850	0.8141	0.7819	1.3449	11.1887	2.3434	1.01
16										
17	Projected Percentage of VMT by Vehicle Class									
18	Forecast Year:	2002.5								
19							SU			CMB Single
20		MC	AUTO	LT	BUS	2A 6T	3A	4A	CS 4A	CS 5A
21	Share	0.0057	0.5522	0.2597	0.0058	0.0369	0.0102	0.0014	0.0179	0.09
22	Adjusted Share	0.0057	0.5503	0.2588	0.0057	0.0368	0.0101	0.0014	0.0178	0.09
23										
24										
25										
26										

LOCAL ADJ / HURF DIST / FED FEES / <Reference> / REG / VMT / RVMT / UVM

Ready NUM

Figure 32: UVMT Worksheet



Microsoft Excel - SMHCAS.xls

File Edit View Insert Format Tools Data Stats Window Help

A1 = Base Period Percentage of Urban VMT

	A	B	C	D	E	F	G	H	I	J
1	Base Period Percentage of Urban VMT									
2										
3							SU			CMB Single
4	Year	MC	AUTO	LT	BUS	2A 6T	3A	4A	CS 4A	CS 5A
5	1987	0.0053	0.6207	0.2847	0.0029	0.0397	0.0098	0.0005	0.0041	0.02
6	1992	0.0092	0.6335	0.2706	0.0066	0.0261	0.0092	0.0009	0.0137	0.02
7	1997	0.0049	0.5979	0.2740	0.0049	0.0313	0.0120	0.0048	0.0191	0.03
8										
9	Average Share	0.0065	0.6174	0.2764	0.0048	0.0324	0.0103	0.0021	0.0123	0.03
10										
11	Annual Growth	0.9925	0.9633	0.9616	1.7316	0.7876	1.2251	10.5359	4.5821	1.39
12	Earliest Period	1.0943	1.0206	0.9514	2.3322	0.6587	0.9321	2.0934	3.3138	0.87
13	Latest Period	0.9013	0.9436	1.0128	0.7477	1.1972	1.3090	5.0381	1.3893	1.60
14	Average Growth	0.9960	0.9758	0.9753	1.6038	0.8812	1.1554	5.8891	3.0951	1.28
15	Adjusted Average	0.9960	0.9758	0.9753	1.6038	0.8812	1.1554	5.8891	3.0951	1.28
16										
17	Projected Percentage of VMT by Vehicle Class									
18	Forecast Year:	2002.5								
19							SU			CMB Single
20		MC	AUTO	LT	BUS	2A 6T	3A	4A	CS 4A	CS 5A
21	Share	0.0065	0.6146	0.2752	0.0052	0.0316	0.0106	0.0028	0.0151	0.03
22	Adjusted Share	0.0065	0.6137	0.2748	0.0052	0.0316	0.0106	0.0028	0.0151	0.03
23										
24										
25										
26										

HURF DIST / FED FEES / <Reference> / REG / VMT / RVMT / UVMT / CONFIG

Ready NUM

Subdivision of Commercial Vehicle Registrations and Traffic

Separate worksheets are used for the final allocation of weight-based cost responsibility according to vehicle miles of travel. Because the registration database (sheet 'REG') does not break down the distribution of commercial vehicles according to the various configurations within a vehicle class (e.g. 3-axle single-unit trucks), a more accurate means of distributing cost responsibility by ESALs requires an assessment of the various configurations that make up truck registrations in a given weight class. For example, although "combination truck" registrations for the 1990 reference file ('REG') are allocated among the various weight classes, these registrations by weight are not subdivided according to the different configurations of combination trucks (e.g. 5-axle single trailer, etc.). This subdivision is necessary because the various configurations of single-unit and combination trucks play a significant role in the ESAL calculations used to allocate "rural" expenditures. The following five worksheets illustrate the various steps taken to subdivide commercial vehicle registrations and traffic and to assign ESAL distribution factors according to vehicle configurations.

Worksheet 'COM WGT', shown below, contains proportional distributions of single-unit and combination truck registrations according to both weight and vehicle configuration. These proportions were taken directly from the AzHCAS model.

Figure 33: COMWGT Worksheet

Microsoft Excel - SMHCAS.xls

File Edit View Insert Format Tools Data Stats Window Help

A31 = Ratios of RGW by Vehicle Type

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
32		SU				CB 1T				CB 2+T										
33	WGT	2A6T	3A	4A		4A	5A	6+A		5A	6A	7+A		BUSES						
34	0-8	0.1043	0.0000	0.0000		0.0004	0.0000	0.0000		0.0000	0.0000	0.0000		0.0118						
35	8-10	0.1813	0.0005	0.0005		0.0008	0.0000	0.0005		0.0003	0.0003	0.0003		0.0321						
36	10-12	0.0733	0.0005	0.0005		0.0008	0.0000	0.0005		0.0003	0.0003	0.0003		0.0641						
37	12-14	0.0323	0.0005	0.0005		0.0008	0.0000	0.0005		0.0003	0.0003	0.0003		0.0314						
38	14-16	0.0534	0.0005	0.0005		0.0008	0.0000	0.0005		0.0003	0.0003	0.0003		0.0509						
39	16-18	0.0720	0.0102	0.0102		0.0008	0.0000	0.0005		0.0003	0.0003	0.0003		0.0258						
40	18-20	0.0733	0.0051	0.0051		0.0008	0.0000	0.0005		0.0003	0.0003	0.0003		0.0299						
41	20-22	0.0335	0.0005	0.0005		0.0008	0.0000	0.0005		0.0003	0.0003	0.0003		0.0132						
42	22-24	0.0745	0.0153	0.0153		0.0128	0.0000	0.0005		0.0003	0.0003	0.0003		0.0320						
43	24-26	0.1006	0.0102	0.0102		0.0120	0.0000	0.0105		0.0003	0.0003	0.0003		0.0787						
44	26-28	0.0658	0.0102	0.0102		0.0092	0.0000	0.0005		0.0006	0.0006	0.0005		0.0781						
45	28-30	0.0397	0.0153	0.0153		0.0201	0.0000	0.0010		0.0003	0.0003	0.0003		0.0933						
46	30-32	0.0161	0.0051	0.0051		0.0084	0.0000	0.0005		0.0006	0.0006	0.0005		0.0703						
47	32-36	0.0199	0.0254	0.0254		0.0161	0.0005	0.0016		0.0003	0.0003	0.0003		0.0327						
48	36-40	0.0149	0.0356	0.0356		0.0241	0.0001	0.0005		0.0006	0.0006	0.0005		0.0105						
49	40-45	0.0004	0.0763	0.0763		0.0361	0.0018	0.0052		0.0003	0.0003	0.0003		0.1283						
50	45-50	0.0211	0.2135	0.2135		0.1124	0.0023	0.0105		0.0006	0.0006	0.0005		0.1798						
51	50-55	0.0037	0.1830	0.1830		0.0803	0.0009	0.0005		0.0030	0.0028	0.0027		0.0329						
52	55-60	0.0075	0.0864	0.0864		0.1525	0.0042	0.0052		0.0090	0.0083	0.0082		0.0019						
53	60-65	0.0004	0.0915	0.0915		0.0883	0.0037	0.0052		0.0009	0.0006	0.0005		0.0006						
54	65-70	0.0027	0.0051	0.0051		0.0241	0.0028	0.0157		0.0090	0.0083	0.0082		0.0006						
55	70-75	0.0004	0.0102	0.0102		0.0281	0.0493	0.0105		0.0240	0.0303	0.0300		0.0006						
56	75-80	0.0050	0.1983	0.1983		0.3612	0.9315	0.9282		0.9481	0.9416	0.9421		0.0006						
57	>80	0.0037	0.0010	0.0010		0.0084	0.0023	0.0000		0.0000	0.0028	0.0027		0.0000						
58	TOTAL	1.0000	1.0000	1.0000		1.0000	1.0000	1.0000		1.0000	1.0000	1.0000		1.0000						
59																				
60																				
61	Ratios of Vehicle Configuration by Vehicle Class																			
62		SU				CB 1T				CB 2+T										
63	WGT	2A6T	3A	4A		4A	5A	6+A		5A	6A	7+A		BUSES						
64	0-8	0.0701	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0118						
65	8-10	0.1218	0.0001	0.0001		0.0001	0.0000	0.0000		0.0001	0.0001	0.0001		0.0321						

REG | VMT | RVMT | UVMT | CONFIG | MAB DERIV | COMWGT | RTRAF WGT

Ready NUM

The AzHCAS data shown in worksheet 'COM WGT' are based on a study of the relationship between vehicle weight-in-motion (WIM) and registered gross weight (RGW) performed as a part of the original AzHCAS design study. While these data are somewhat dated, being based on a sample collection from 1980 to 1986, they are still in use in the AzHCAS model due to the great deal of time and effort required to take additional samples. The distribution of configuration and weight combinations within a given vehicle class (single-unit or combination trucks) is not expected to have changed significantly from the original sample period. However, at such time as becomes practical, it is suggested that the 'COM WGT' worksheet be updated with 1990 to 1996 data.

The proportions contained in 'COM WGT' are used to redistribute shares of total VMT and rural VMT *within* the commercial vehicle classes in worksheets 'TRAF WGT' and 'RTRAF WGT' respectively. For example, single-unit truck rural VMT ('RVMT' cells F22:H22) for three common configurations is distributed among weight classes for each configuration according to the shares in 'COM WGT'. Single-unit, 3-axle trucks in the 36,000 to 40,000 lb. weight class are thus allocated a 0.12 percent share of *all* rural traffic:

'RTRAF WGT' F18 = 'RVMT' G22 × 'COM WGT' C48.

Figure 34: RTRAF WGT Worksheet

Microsoft Excel - SMHCAS.xls

File Edit View Insert Format Tools Data Stats Window Help

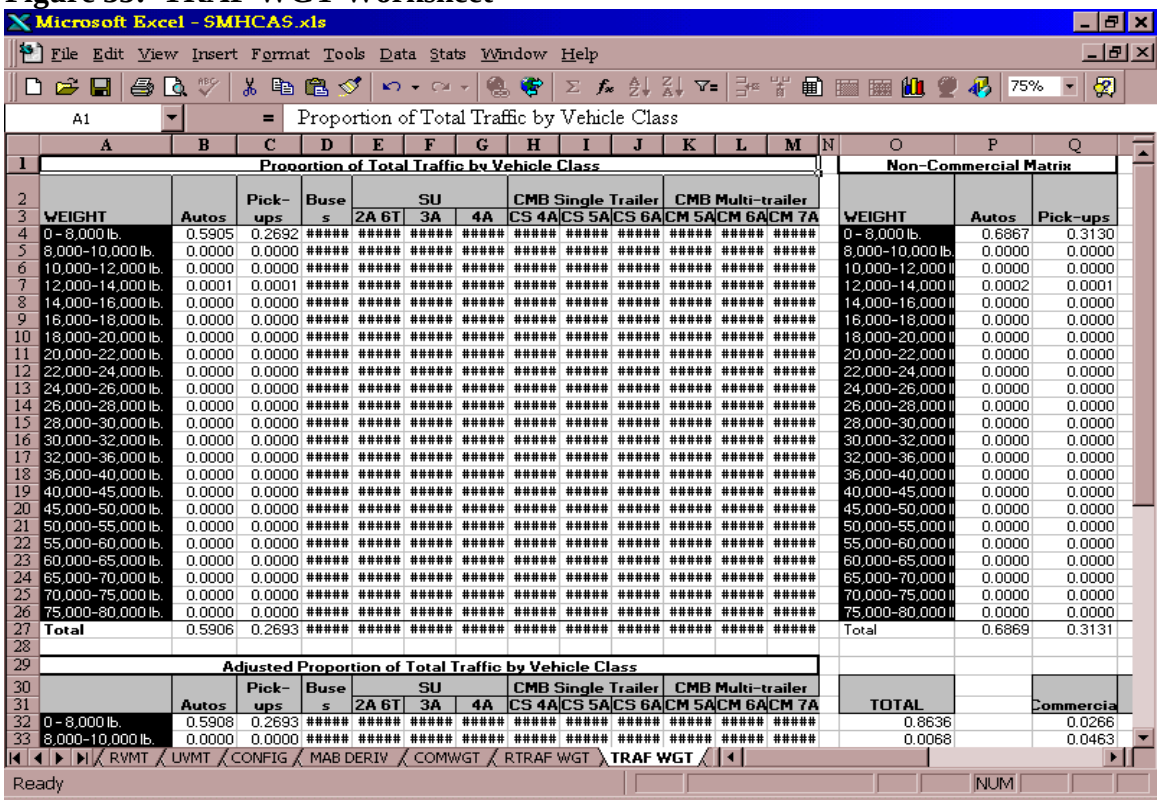
A1 = Proportion of Rural Traffic by Vehicle Class

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	Proportion of Rural Traffic by Vehicle Class														Non-Commercial Matrix - Rural		
2					SU			CMB Single Trailer			CMB Multi-trailer						
3	WEIGHT	Autos	Pick-ups	Buses	2A 6T	3A	4A	CS 4A	CS 5A	CS 6A	CM 5A	CM 6A	CM 7A		WEIGHT	Autos	Pick-ups
4	0 - 8,000 lb.	0.5559	0.2587	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		0 - 8,000 lb.	0.6822	0.3175
5	8,000-10,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		8,000-10,000 lb.	0.0000	0.0000
6	10,000-12,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		10,000-12,000 lb.	0.0000	0.0000
7	12,000-14,000 lb.	0.0001	0.0001	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		12,000-14,000 lb.	0.0002	0.0001
8	14,000-16,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		14,000-16,000 lb.	0.0000	0.0000
9	16,000-18,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		16,000-18,000 lb.	0.0000	0.0000
10	18,000-20,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		18,000-20,000 lb.	0.0000	0.0000
11	20,000-22,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		20,000-22,000 lb.	0.0000	0.0000
12	22,000-24,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		22,000-24,000 lb.	0.0000	0.0000
13	24,000-26,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		24,000-26,000 lb.	0.0000	0.0000
14	26,000-28,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		26,000-28,000 lb.	0.0000	0.0000
15	28,000-30,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		28,000-30,000 lb.	0.0000	0.0000
16	30,000-32,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		30,000-32,000 lb.	0.0000	0.0000
17	32,000-36,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		32,000-36,000 lb.	0.0000	0.0000
18	36,000-40,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		36,000-40,000 lb.	0.0000	0.0000
19	40,000-45,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		40,000-45,000 lb.	0.0000	0.0000
20	45,000-50,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		45,000-50,000 lb.	0.0000	0.0000
21	50,000-55,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		50,000-55,000 lb.	0.0000	0.0000
22	55,000-60,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		55,000-60,000 lb.	0.0000	0.0000
23	60,000-65,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		60,000-65,000 lb.	0.0000	0.0000
24	65,000-70,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		65,000-70,000 lb.	0.0000	0.0000
25	70,000-75,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		70,000-75,000 lb.	0.0000	0.0000
26	75,000-80,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		75,000-80,000 lb.	0.0000	0.0000
27	Total	0.5560	0.2588	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		Total	0.6824	0.3176
28																	
29	Adjusted Proportion of Rural Traffic by Vehicle Class																
30					SU			CMB Single Trailer			CMB Multi-trailer						
31		Autos	Pick-ups	Buses	2A 6T	3A	4A	CS 4A	CS 5A	CS 6A	CM 5A	CM 6A	CM 7A		TOTAL		Commercia
32	0 - 8,000 lb.	0.5562	0.2589	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		0.8189		0.0215
33	8,000-10,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		0.0073		0.0375

REG | VMT | RVMT | UVMT | CONFIG | MAB DERIV | COMWGT | RTRAF WGT

Ready NUM

Figure 35: TRAF WGT Worksheet



Microsoft Excel - SMHCAS.xls

File Edit View Insert Format Tools Data Stats Window Help

A1 = Proportion of Total Traffic by Vehicle Class

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	Proportion of Total Traffic by Vehicle Class														Non-Commercial Matrix		
2			Pick-	Buse	SU			CMB Single Trailer			CMB Multi-trailer						
3	WEIGHT	Autos	ups	s	2A 6T	3A	4A	CS 4A	CS 5A	CS 6A	CM 5A	CM 6A	CM 7A		WEIGHT	Autos	Pick-ups
4	0 - 8,000 lb.	0.5905	0.2692	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		0 - 8,000 lb.	0.6867	0.3130
5	8,000-10,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		8,000-10,000 lb.	0.0000	0.0000
6	10,000-12,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		10,000-12,000 lb.	0.0000	0.0000
7	12,000-14,000 lb.	0.0001	0.0001	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		12,000-14,000 lb.	0.0002	0.0001
8	14,000-16,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		14,000-16,000 lb.	0.0000	0.0000
9	16,000-18,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		16,000-18,000 lb.	0.0000	0.0000
10	18,000-20,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		18,000-20,000 lb.	0.0000	0.0000
11	20,000-22,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		20,000-22,000 lb.	0.0000	0.0000
12	22,000-24,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		22,000-24,000 lb.	0.0000	0.0000
13	24,000-26,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		24,000-26,000 lb.	0.0000	0.0000
14	26,000-28,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		26,000-28,000 lb.	0.0000	0.0000
15	28,000-30,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		28,000-30,000 lb.	0.0000	0.0000
16	30,000-32,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		30,000-32,000 lb.	0.0000	0.0000
17	32,000-36,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		32,000-36,000 lb.	0.0000	0.0000
18	36,000-40,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		36,000-40,000 lb.	0.0000	0.0000
19	40,000-45,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		40,000-45,000 lb.	0.0000	0.0000
20	45,000-50,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		45,000-50,000 lb.	0.0000	0.0000
21	50,000-55,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		50,000-55,000 lb.	0.0000	0.0000
22	55,000-60,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		55,000-60,000 lb.	0.0000	0.0000
23	60,000-65,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		60,000-65,000 lb.	0.0000	0.0000
24	65,000-70,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		65,000-70,000 lb.	0.0000	0.0000
25	70,000-75,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		70,000-75,000 lb.	0.0000	0.0000
26	75,000-80,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		75,000-80,000 lb.	0.0000	0.0000
27	Total	0.5906	0.2693	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		Total	0.6869	0.3131
28																	
29	Adjusted Proportion of Total Traffic by Vehicle Class																
30			Pick-	Buse	SU			CMB Single Trailer			CMB Multi-trailer						
31		Autos	ups	s	2A 6T	3A	4A	CS 4A	CS 5A	CS 6A	CM 5A	CM 6A	CM 7A		TOTAL		Commercia
32	0 - 8,000 lb.	0.5908	0.2693	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		0.8636		0.0266
33	8,000-10,000 lb.	0.0000	0.0000	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####		0.0068		0.0463

RVMT | UVMT | CONFIG | MAB DERIV | COMWGT | RTRAF WGT | TRAF WGT

Ready NUM

All vehicle traffic is restated in the 'TRAF WGT' and 'RTRAF WGT' worksheets in order to minimize the number of references required to calculate final shares of rural expenditures. However, only commercial vehicles are redistributed according to the 'COM WGT' worksheet. Entries for autos, pick-ups and buses (cells B4:D26) in the 'TRAF' sheets restate the 'VMT' and 'REG' worksheet results.

As in the case of other distributive worksheets, the raw totals in the 'TRAF' worksheets are adjusted to total 100 percent in separate matrices on the same page. The adjusted totals used for the final distributions of traffic by weight are located in cells A29:M55 of the 'TRAF WGT' and 'RTRAF WGT' worksheets. Each worksheet also contains a reallocation of traffic according to axle-miles, used for the distribution of pavement maintenance costs. These totals are obtained by multiplying the share of traffic by weight by the number of axles for a given configuration. Adjusted totals for traffic by weighted axle-miles are found in cells A87:M113, and aggregated by vehicle class and weight class in cells O59:P66 and O69:P93 respectively. However, the final distribution of "rural" expenditures also requires the calculation of ESAL factors for the vehicle configuration and weight matrix as discussed below.

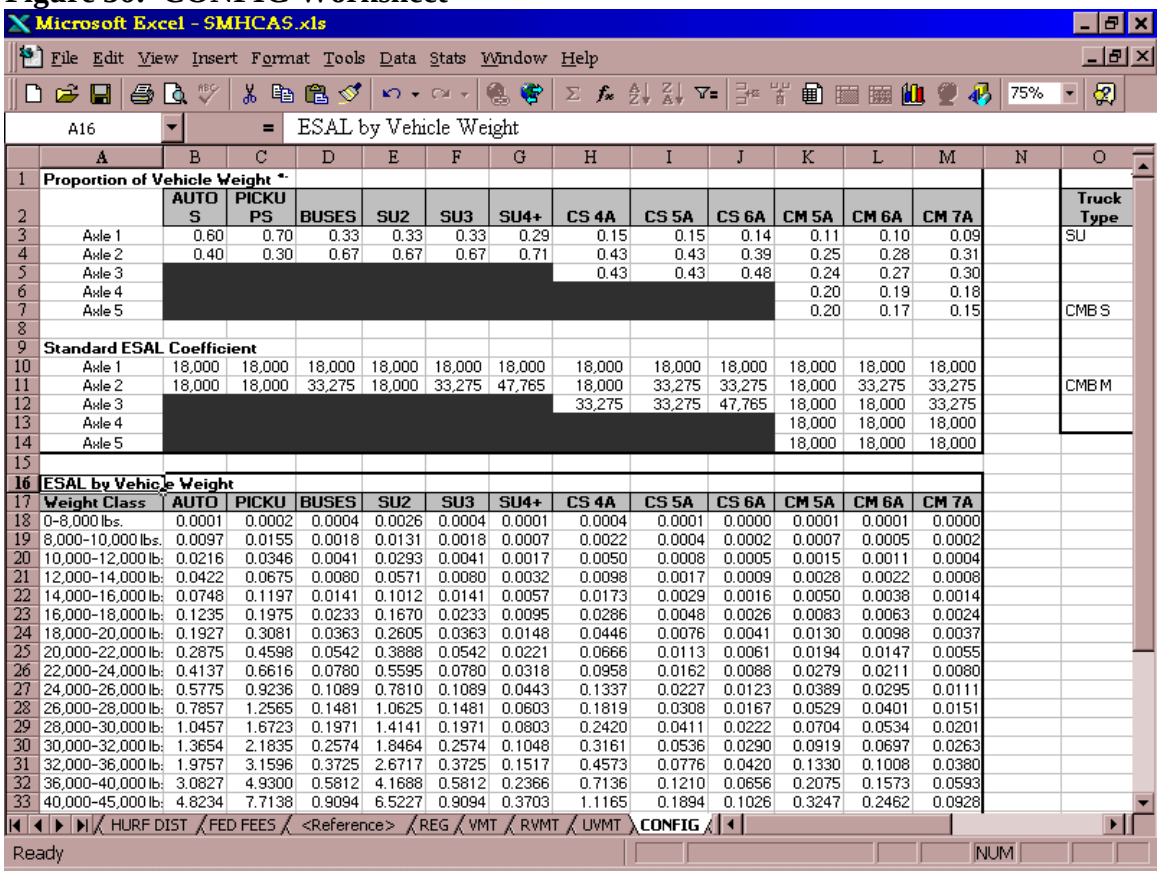
ESAL Calculations: 'CONFIG' and 'MAB DERIV' Worksheets

Calculation of equivalent single axle loads (ESALs) for the attribution of cost responsibility for "rural" expenditures is provided in the 'CONFIG' and 'MAB DERIV' worksheets. The 'CONFIG' worksheet relies on standardized commercial vehicle data from the FHWA *Comprehensive Truck Size and Weight Study* (1995), as well as estimates for passenger vehicles, to assign ESAL

factors to various vehicle and weight configurations. Standardized single-axle ESAL coefficients from the FHWA study have been apportioned among double- and triple-axle tandems where appropriate, according to the algebraic derivation discussed in 'MAB DERIV'.

The 'CONFIG' sheet is divided into three sections. The first, cell range B3:M7, allocates share of total vehicle weight for each standardized configuration to a given axle. Axles are listed from front to back. For example, the standard passenger auto has two axles. The front (axle 1) is assigned a default share of 60 percent of the total vehicle weight in cell B3. The rear axle is assigned the remaining 40 percent of total vehicle weight (cell B4).

Figure 36: CONFIG Worksheet



Microsoft Excel - SMHCAS.xls

File Edit View Insert Format Tools Data Stats Window Help

A16 = ESAL by Vehicle Weight

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	Proportion of Vehicle Weight *														
2		AUTOS	PICKUPS	BUSES	SU2	SU3	SU4+	CS 4A	CS 5A	CS 6A	CM 5A	CM 6A	CM 7A		Truck Type
3	Axle 1	0.60	0.70	0.33	0.33	0.33	0.29	0.15	0.15	0.14	0.11	0.10	0.09		SU
4	Axle 2	0.40	0.30	0.67	0.67	0.67	0.71	0.43	0.43	0.39	0.25	0.28	0.31		
5	Axle 3							0.43	0.43	0.48	0.24	0.27	0.30		
6	Axle 4										0.20	0.19	0.18		
7	Axle 5										0.20	0.17	0.15		CMBS
8															
9	Standard ESAL Coefficient														
10	Axle 1	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000		
11	Axle 2	18,000	18,000	33,275	18,000	33,275	47,765	18,000	33,275	33,275	18,000	33,275	33,275		CMBM
12	Axle 3							33,275	33,275	47,765	18,000	18,000	33,275		
13	Axle 4										18,000	18,000	18,000		
14	Axle 5										18,000	18,000	18,000		
15															
16	ESAL by Vehicle Weight														
17	Weight Class	AUTO	PICKU	BUSES	SU2	SU3	SU4+	CS 4A	CS 5A	CS 6A	CM 5A	CM 6A	CM 7A		
18	0-8,000 lbs.	0.0001	0.0002	0.0004	0.0026	0.0004	0.0001	0.0004	0.0001	0.0000	0.0001	0.0001	0.0000		
19	8,000-10,000 lbs.	0.0097	0.0155	0.0018	0.0131	0.0018	0.0007	0.0022	0.0004	0.0002	0.0007	0.0005	0.0002		
20	10,000-12,000 lb:	0.0216	0.0346	0.0041	0.0293	0.0041	0.0017	0.0050	0.0008	0.0005	0.0015	0.0011	0.0004		
21	12,000-14,000 lb:	0.0422	0.0675	0.0080	0.0571	0.0080	0.0032	0.0098	0.0017	0.0009	0.0028	0.0022	0.0008		
22	14,000-16,000 lb:	0.0748	0.1197	0.0141	0.1012	0.0141	0.0057	0.0173	0.0029	0.0016	0.0050	0.0038	0.0014		
23	16,000-18,000 lb:	0.1235	0.1975	0.0233	0.1670	0.0233	0.0095	0.0286	0.0048	0.0026	0.0083	0.0063	0.0024		
24	18,000-20,000 lb:	0.1927	0.3081	0.0363	0.2605	0.0363	0.0148	0.0446	0.0076	0.0041	0.0130	0.0098	0.0037		
25	20,000-22,000 lb:	0.2875	0.4598	0.0542	0.3888	0.0542	0.0221	0.0666	0.0113	0.0061	0.0194	0.0147	0.0055		
26	22,000-24,000 lb:	0.4137	0.6616	0.0780	0.5595	0.0780	0.0318	0.0958	0.0162	0.0088	0.0279	0.0211	0.0080		
27	24,000-26,000 lb:	0.5775	0.9236	0.1089	0.7810	0.1089	0.0443	0.1337	0.0227	0.0123	0.0389	0.0295	0.0111		
28	26,000-28,000 lb:	0.7857	1.2565	0.1481	1.0625	0.1481	0.0603	0.1819	0.0308	0.0167	0.0529	0.0401	0.0151		
29	28,000-30,000 lb:	1.0457	1.6723	0.1971	1.4141	0.1971	0.0803	0.2420	0.0411	0.0222	0.0704	0.0534	0.0201		
30	30,000-32,000 lb:	1.3654	2.1835	0.2574	1.8464	0.2574	0.1048	0.3161	0.0536	0.0290	0.0919	0.0697	0.0263		
31	32,000-36,000 lb:	1.9757	3.1596	0.3725	2.6717	0.3725	0.1517	0.4573	0.0776	0.0420	0.1330	0.1008	0.0380		
32	36,000-40,000 lb:	3.0827	4.9300	0.5812	4.1688	0.5812	0.2366	0.7136	0.1210	0.0656	0.2075	0.1573	0.0593		
33	40,000-45,000 lb:	4.8234	7.7138	0.9094	6.5227	0.9094	0.3703	1.1165	0.1894	0.1026	0.3247	0.2462	0.0928		

HURF DIST / FED FEES / <Reference> / REG / VMT / RVMT / UVMT / CONFIG /

Ready NUM

The second section contains default ESAL weight values for single, double and triple axles, according to the calculations in 'MAB DERIV'. By convention, an 18,000-pound single axle is 1.00 ESAL (FHWA, 1995). Therefore, all axles listed as 18,000 pounds in cells B10:M14 are single axles. Double and triple axles are assigned default ESAL equivalencies of 33,275 pounds and 47,765 pounds respectively (see next page). These default weight are used to calculate ESAL weighted allocation factors in the final section (cells B18:M40).

Each allocation factor is the product of number of default weight and an ESAL adjustment based on an exponential relationship between standard ESAL weights and the estimated vehicle load on each axle. With the exception of autos and pick-ups in the lowest weight class, default vehicle weights are considered to be the midpoint of each weight range (e.g. 11,000 pounds for

the 10,000 to 12,000 lb. range). The allocation factor is calculated according to the following formula:

$$Allocation = \sum \left(\frac{VehicleWgt \times AxleShare}{StdESALWgt} \right)^4$$

For example, the ESAL factor for a standard passenger auto (cell B18) is calculated as the sum of allocations for each of two axles. The front axle allocation is equal to the default vehicle weight (3,000 pounds for autos in the lightest weight class) multiplied by the axle share (60 percent for axle 1 in cell B3); this product divided by the standard ESAL weight for a single axle (18,000 pounds in cell B10); and the result raised to the fourth power. The rear axle allocation is calculated the same way, replacing the axle share with a 40 percent weighting. These two allocations are then added to arrive at the final ESAL weighting for autos in the 0 to 8,000-pound weight class.

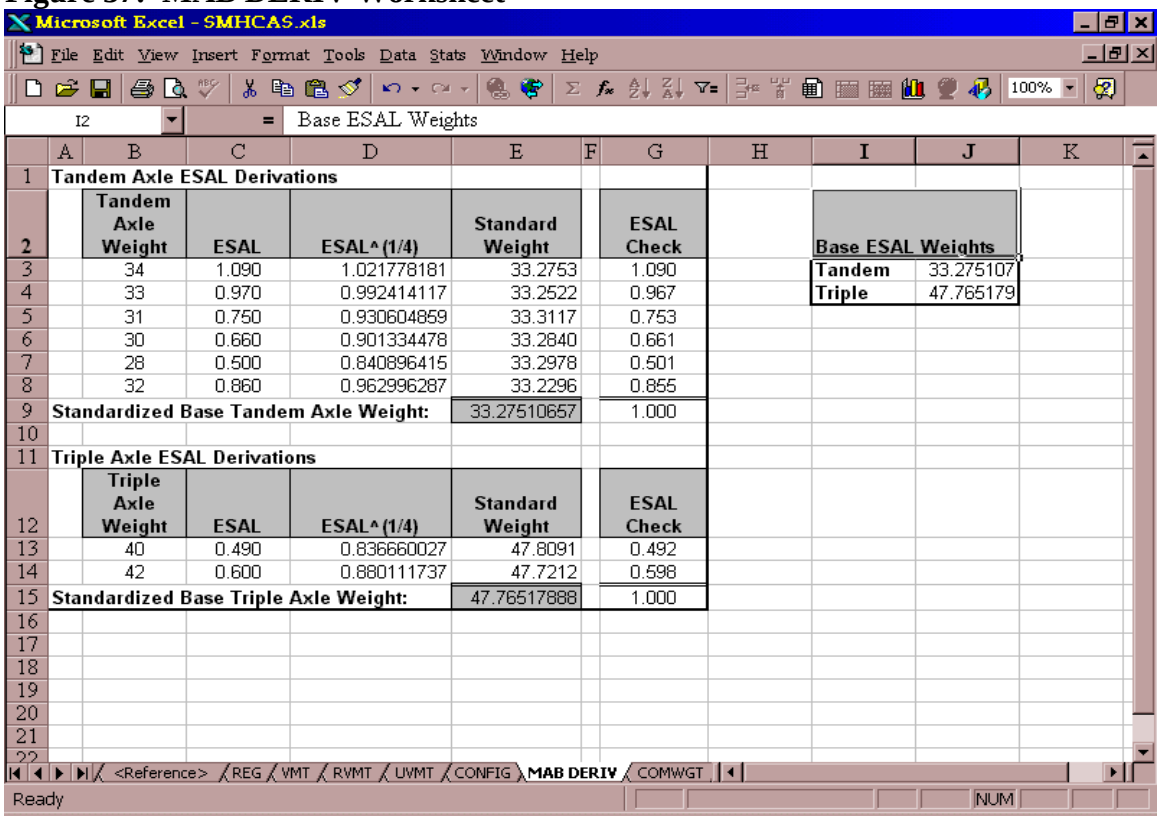
Formulas for multiple axle base (MAB) derivations were not available in the FHWA report used to assign various ESAL ratings to vehicle configurations. In order to approximate the distribution of equivalent axle loads to tandem axles, an algebraic derivation was made based on existing ESAL ratings for single axles. Known tandem axle ESALs for a few select vehicle and weight configurations were used to convert the 18,000 pound standard for single axles to double and triple tandem axles in 'MAB DERIV'.

Known axle weights and tandem axle ESALs from the FHWA report are given in columns B and C respectively. From these sample distributions, the inverse of the fourth-power relationship for single axle loads was used to assign a weight distribution factor to the load on a tandem axle. The known weight was then divided by the weight distribution factor to assign a double- or triple-axle standard that would yield the same results as the 18,000 pound standard for single axle loads.

$$BaseWeight_{TANDEM} = \frac{KnownWeight_{TANDEM}}{\left(KnownESAL_{TANDEM}\right)^{\frac{1}{4}}}$$

The standards for various tandem axle weights were then averaged to come up with an overall base weight for assigning ESALs to double and triple axles. These base weights are shown in 'MAB DERIV' cells J3:J4 and in the "Standard ESAL Coefficient" section (cell range A10:M14) of the 'CONFIG' worksheet.

Figure 37: MAB DERIV Worksheet



Microsoft Excel - SMHCAS.xls

File Edit View Insert Format Tools Data Stats Window Help

I2 = Base ESAL Weights

	A	B	C	D	E	F	G	H	I	J	K
1	Tandem Axle ESAL Derivations										
2		Tandem Axle Weight	ESAL	ESAL^(1/4)	Standard Weight		ESAL Check		Base ESAL Weights		
3		34	1.090	1.021778181	33.2753		1.090		Tandem	33.275107	
4		33	0.970	0.992414117	33.2522		0.967		Triple	47.765179	
5		31	0.750	0.930604859	33.3117		0.753				
6		30	0.660	0.901334478	33.2840		0.661				
7		28	0.500	0.840896415	33.2978		0.501				
8		32	0.860	0.962996287	33.2296		0.855				
9	Standardized Base Tandem Axle Weight:				33.27510657		1.000				
10											
11	Triple Axle ESAL Derivations										
12		Triple Axle Weight	ESAL	ESAL^(1/4)	Standard Weight		ESAL Check				
13		40	0.490	0.836660027	47.8091		0.492				
14		42	0.600	0.880111737	47.7212		0.598				
15	Standardized Base Triple Axle Weight:				47.76517888		1.000				
16											
17											
18											
19											
20											
21											
22											

<Reference> REG VMT RVMT UVMT CONFIG MAB DERIV COMWGT

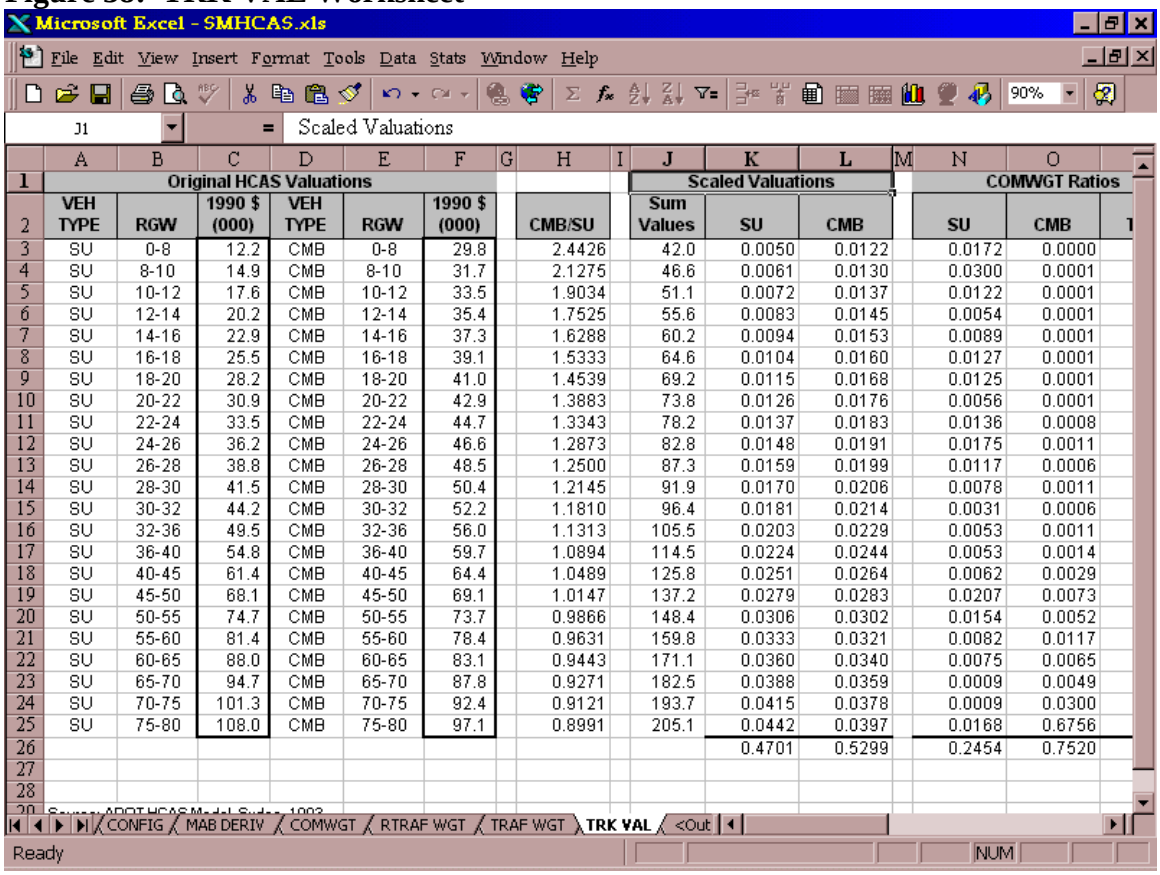
Ready NUM

Commercial Vehicle Valuations

The 'TRK VAL' worksheet is used to allocate the share of vehicle license tax revenues for commercial vehicles (see 'VLT ADJ') among single-unit and combination trucks in various weight classes. Because the VLT is based on the sales price of a given vehicle, registrations must be scaled according to a relative valuation scale. This is done based on the original vehicle valuations reported in the AzHCAS for 1990 (see range A1:F25). The raw valuations in this range are assigned a relative weight based on each value divided by the sum of all values in the two categories. These scaled valuations, located in cells K3:L25, are multiplied by the proportional registrations by vehicle configuration and weight as discussed in worksheet 'COM WGT'. Finally, the product of each operation is divided by the sum of all operations to yield a final share of VLT for each vehicle type and weight combination (cells Z3:AB25).

As an example, the average value of a single-unit truck registered between 16,000 and 18,000 lb. in 1990 was an estimated $25,500. Divided by the sum of all truck valuations by weight class, the relative valuation factor of this vehicle is 0.0104 (cell K8). The valuation factor is multiplied by the share of commercial registrations for this vehicle class (cell N8) to yield an overall adjustment factor of 0.0001 (cell R8). This factor is divided by the sum of all adjustment factors (cell T26) to yield the VLT allocation factor of 0.39 percent for this vehicle and weight combination (cell Z8).

Figure 38: TRK VAL Worksheet



Microsoft Excel - SMHCAS.xls

File Edit View Insert Format Tools Data Stats Window Help

J1 = Scaled Valuations

	Original HCAS Valuations							Scaled Valuations			COMWGT Ratios	
	VEH TYPE	RGW	1990 $ (000)	VEH TYPE	RGW	1990 $ (000)	CMB/SU	Sum Values	SU	CMB	SU	CMB
3	SU	0-8	12.2	CMB	0-8	29.8	2.4426	42.0	0.0050	0.0122	0.0172	0.0000
4	SU	8-10	14.9	CMB	8-10	31.7	2.1275	46.6	0.0061	0.0130	0.0300	0.0001
5	SU	10-12	17.6	CMB	10-12	33.5	1.9034	51.1	0.0072	0.0137	0.0122	0.0001
6	SU	12-14	20.2	CMB	12-14	35.4	1.7525	55.6	0.0083	0.0145	0.0054	0.0001
7	SU	14-16	22.9	CMB	14-16	37.3	1.6288	60.2	0.0094	0.0153	0.0089	0.0001
8	SU	16-18	25.5	CMB	16-18	39.1	1.5333	64.6	0.0104	0.0160	0.0127	0.0001
9	SU	18-20	28.2	CMB	18-20	41.0	1.4539	69.2	0.0115	0.0168	0.0125	0.0001
10	SU	20-22	30.9	CMB	20-22	42.9	1.3883	73.8	0.0126	0.0176	0.0056	0.0001
11	SU	22-24	33.5	CMB	22-24	44.7	1.3343	78.2	0.0137	0.0183	0.0136	0.0008
12	SU	24-26	36.2	CMB	24-26	46.6	1.2873	82.8	0.0148	0.0191	0.0175	0.0011
13	SU	26-28	38.8	CMB	26-28	48.5	1.2500	87.3	0.0159	0.0199	0.0117	0.0006
14	SU	28-30	41.5	CMB	28-30	50.4	1.2145	91.9	0.0170	0.0206	0.0078	0.0011
15	SU	30-32	44.2	CMB	30-32	52.2	1.1810	96.4	0.0181	0.0214	0.0031	0.0006
16	SU	32-36	49.5	CMB	32-36	56.0	1.1313	105.5	0.0203	0.0229	0.0053	0.0011
17	SU	36-40	54.8	CMB	36-40	59.7	1.0894	114.5	0.0224	0.0244	0.0053	0.0014
18	SU	40-45	61.4	CMB	40-45	64.4	1.0489	125.8	0.0251	0.0264	0.0062	0.0029
19	SU	45-50	68.1	CMB	45-50	69.1	1.0147	137.2	0.0279	0.0283	0.0207	0.0073
20	SU	50-55	74.7	CMB	50-55	73.7	0.9866	148.4	0.0306	0.0302	0.0154	0.0052
21	SU	55-60	81.4	CMB	55-60	78.4	0.9631	159.8	0.0333	0.0321	0.0082	0.0117
22	SU	60-65	88.0	CMB	60-65	83.1	0.9443	171.1	0.0360	0.0340	0.0075	0.0065
23	SU	65-70	94.7	CMB	65-70	87.8	0.9271	182.5	0.0388	0.0359	0.0009	0.0049
24	SU	70-75	101.3	CMB	70-75	92.4	0.9121	193.7	0.0415	0.0378	0.0009	0.0300
25	SU	75-80	108.0	CMB	75-80	97.1	0.8991	205.1	0.0442	0.0397	0.0168	0.6756
26									0.4701	0.5299	0.2454	0.7520
27												
28												

Source: ADOT HCAS Model Study, 1993

CONFIG | MAB DERIV | COMWGT | RTRAF WGT | TRAF WGT | TRK VAL | <Out

Ready NUM

Outputs

The following figures provide illustrations of the three output worksheets, 'REV OUT', 'EXP OUT' and 'RATIOS OUT'. The first two worksheets contain the formulas used in the final allocation of revenues and expenditures, and the third worksheet provides an equity comparison among vehicle and weight classes based on these outputs. The actual formulas contained in worksheets 'REV OUT' and 'EXP OUT' are shown in the worksheet details in Appendix C of this report. The following discussion will outline the variables used in distributing revenue and expenditure categories, but does not go into detailed discussion of these formulas. Refer to Appendix C for more specific information.

The 'REV OUT' and 'EXP OUT' worksheets tabulate estimates of program period revenues and expenditures by vehicle class and weight class. Revenues are subdivided into state and federal collections, including fuel taxes, vehicle license taxes, registration and various weight, use, motor carrier and miscellaneous fees. Subtotals are also calculated to facilitate sublevel equity calculations in worksheet 'RATIOS OUT'.

Figure 39: REV OUT Worksheet

Microsoft Excel - SMHCAS.xls

File Edit View Insert Format Tools Data Stats Window Help

A1 = Average Annual Revenues,

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Average Annual Revenues		2000	to	2004								
2	(Thousands of Dollars)												
3		State Revenues								Federal Revenues			
4	Vehicle Class	Gas Tax	Diesel Tax	Vehicle License Tax	Regist. & Weight	Motor Carrier Fee	Other (Commo n)	Other (Truck)	State Subtotal	Gas Tax	Diesel Tax	Use Tax	Sales Tax
5	Autos	255,109	-	486,519	25,951	-	22,885	-	790,465	260,779	-	-	-
6	Pick-ups and SUVs	171,809	-	175,910	9,409	-	8,275	-	365,402	175,627	-	-	-
7	Buses	-	4,768	268	769	593	88	422	6,907	-	6,463	-	-
8	Single Unit trucks	-	42,113	12,018	11,793	8,917	660	3,164	78,665	-	57,086	2,599	3,892
9	Combination trucks	-	116,160	85,147	96,830	39,160	114	546	337,956	-	157,461	8,544	27,573
10	**Total**	*****	*****	******	*****	**48,670**	**32,022**	**4,132**	******	*****	*****	**11,143**	**31,465**
11													
12		State Revenues								Federal Revenues			
13	Weight Class	Gas Tax	Diesel Tax	Vehicle License Tax	Regist. & Weight	Motor Carrier Fee	Other (Commo n)	Other (Truck)	State Subtotal	Gas Tax	Diesel Tax	Use Tax	Sales Tax
14	0 - 8,000 lb.	426,795	2,170	662,260	35,217	-	31,151	-	#######	436,279	2,941	-	76
15	8,000-10,000 lb.	-	4,502	29,443	1,649	1,450	258	1,238	38,540	-	6,103	-	162
16	10,000-12,000 lb.	-	2,257	9,117	744	483	87	418	13,106	-	3,060	-	79
17	12,000-14,000 lb.	123	1,029	2,128	380	112	29	97	3,899	126	1,395	-	41
18	14,000-16,000 lb.	-	1,679	4,171	606	286	40	189	6,972	-	2,276	-	75
19	16,000-18,000 lb.	-	2,431	2,994	489	228	31	146	6,318	-	3,295	-	119
20	18,000-20,000 lb.	-	2,481	5,375	1,041	472	50	239	9,658	-	3,363	-	129
21	20,000-22,000 lb.	-	1,321	1,446	310	126	17	82	3,300	-	1,790	-	64
22	22,000-24,000 lb.	-	3,043	2,466	583	236	26	125	6,479	-	4,125	-	176
23	24,000-26,000 lb.	-	4,054	8,051	2,284	1,135	74	357	15,955	-	5,495	-	247
24	26,000-28,000 lb.	-	3,018	1,347	490	298	20	95	5,269	-	4,092	-	175
25	28,000-30,000 lb.	-	2,253	1,558	634	407	18	88	4,959	-	3,055	-	138
26	30,000-32,000 lb.	-	886	1,092	528	364	11	50	2,931	-	1,201	-	61
27	32,000-36,000 lb.	-	1,791	1,614	956	638	19	91	5,108	-	2,428	-	120
28	36,000-40,000 lb.	-	2,064	1,199	1,414	714	17	80	5,488	-	2,798	-	138
29	40,000-45,000 lb.	-	2,013	940	1,013	451	8	37	4,461	-	2,728	-	210
30	45,000-50,000 lb.	-	6,489	2,602	3,768	1,513	19	90	14,481	-	8,797	-	701

TRAF WGT | TRK VAL | <Outputs> | REV OUT | EXP OUT | RATIOS OUT

Ready NUM

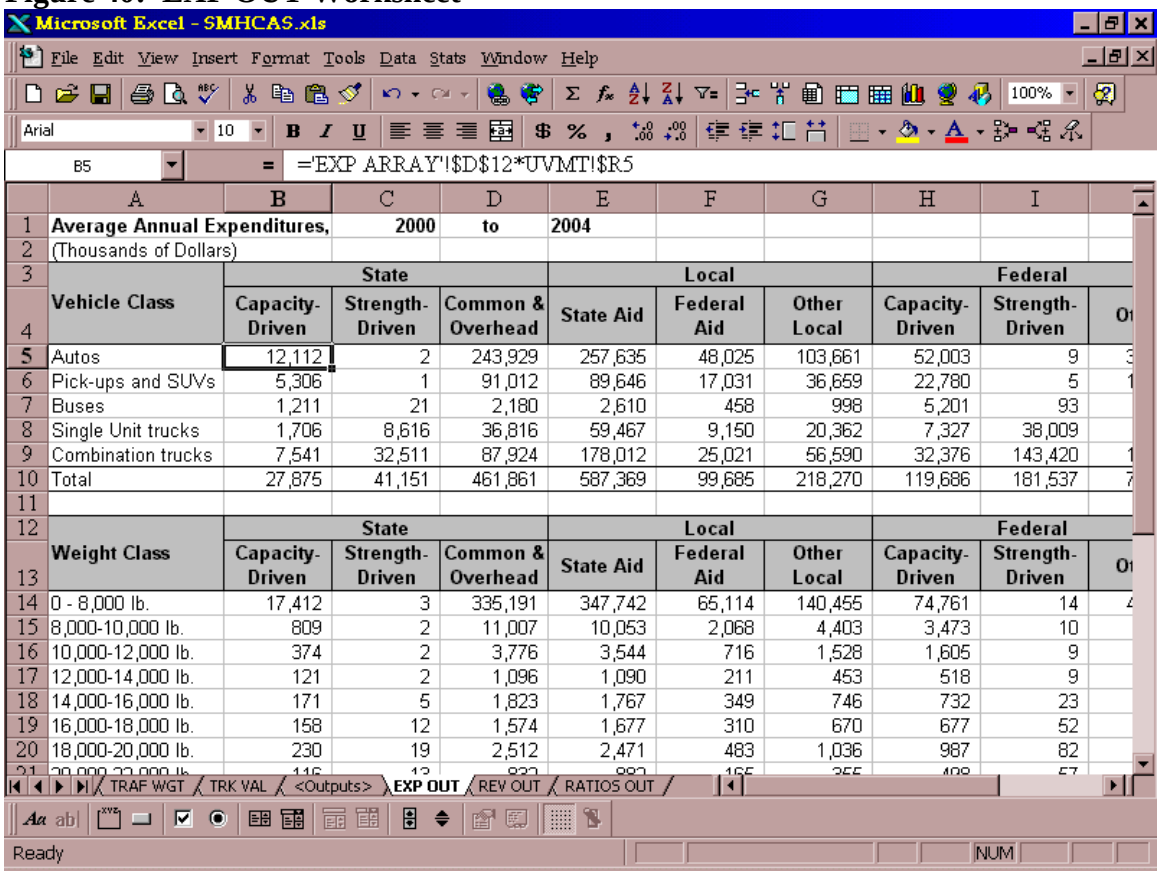
The various revenue categories are allocated among vehicle and weight classes as shown in the table below. Note that in some cases (e.g. weighted VMT by class of roadway), multiple steps and worksheets are required to arrive at the final allocation factor(s).

Table 16: SMHCAS Allocation Methods by Revenue Category

Revenue Category	Allocation Method
Gasoline tax	Distributed among autos and pick-ups according to share of VMT weighted by relative fuel economy. Weight-based distribution falls almost exclusively on the lightest class.
Diesel (use fuel) tax	Distributed among buses and trucks according to share of VMT weighted by *average* of relative fuel economy. Weight-based distribution incorporates number of registrations in each weight class in the weighted share of VMT.
Vehicle License Tax	Distributed according to projections made from historical shares and share growth rates by vehicle class. Truck VLT is adjusted for trailer registrations. Conversion from vehicle to weight class shares based on percentage of vehicle class registrations in a given weight class.
Registration and Weight Fees	Assigned an adjustment factor based on share of registrations weighted by the relative magnitude of fees in each category. Weight class shares for each vehicle class are aggregated for the vehicle class allocation.
Motor Carrier Fees	Distributed among commercial vehicles according to the same adjustment factor as registration and weight fees, but using only commercial vehicle registrations.
Other State Fees	Split between common fees (e.g. drivers' licenses) and truck fees (e.g. weight penalties). The former are allocated according to share of total registrations, the latter according to share of commercial registrations.
Federal Sales Tax	Allocated among single-unit and combination trucks according to number of registrations weighted by relative valuation of a truck configuration in a given weight class.
Federal Tire Tax	Allocated among single-unit and combination trucks according to number of registrations weighted by average number of tires in a given vehicle configuration.
Federal Use Tax	Allocated among single-unit and combination trucks in the same manner as weight fees, but applies only to vehicles registered at 55,000 lb. or more.

All expenditures for various levels of government are allocated to highway users in worksheet 'EXP OUT'. Columns B:D contain direct expenditures by the state, including the Obligation Program, operating overhead and maintenance. State aid to local governments is included in the summary of local expenditures located in columns E:G. Similarly, the expenditure columns designated as "Federal" funds refer only to state-level expenditures of federal highway funds, and do not include federal aid to local governments. The latter data are included in Local Expenditures column F.

Figure 40: EXP OUT Worksheet



Microsoft Excel - SMHCAS.xls

File Edit View Insert Format Tools Data Stats Window Help

Arial 10 100%

B5 ='EXP ARRAY'!$D$12*UVMT!$R5

	A	B	C	D	E	F	G	H	I
1	**Average Annual Expenditures,**		**2000**	**to**	**2004**				
2	(Thousands of Dollars)								
3		**State**			**Local**			**Federal**	
4	**Vehicle Class**	**Capacity-Driven**	**Strength-Driven**	**Common & Overhead**	**State Aid**	**Federal Aid**	**Other Local**	**Capacity-Driven**	**Strength-Driven**
5	Autos	12,112	2	243,929	257,635	48,025	103,661	52,003	9
6	Pick-ups and SUVs	5,306	1	91,012	89,646	17,031	36,659	22,780	5
7	Buses	1,211	21	2,180	2,610	458	998	5,201	93
8	Single Unit trucks	1,706	8,616	36,816	59,467	9,150	20,362	7,327	38,009
9	Combination trucks	7,541	32,511	87,924	178,012	25,021	56,590	32,376	143,420
10	Total	27,875	41,151	461,861	587,369	99,685	218,270	119,686	181,537
11									
12		**State**			**Local**			**Federal**	
13	**Weight Class**	**Capacity-Driven**	**Strength-Driven**	**Common & Overhead**	**State Aid**	**Federal Aid**	**Other Local**	**Capacity-Driven**	**Strength-Driven**
14	0 - 8,000 lb.	17,412	3	335,191	347,742	65,114	140,455	74,761	14
15	8,000-10,000 lb.	809	2	11,007	10,053	2,068	4,403	3,473	10
16	10,000-12,000 lb.	374	2	3,776	3,544	716	1,528	1,605	9
17	12,000-14,000 lb.	121	2	1,096	1,090	211	453	518	9
18	14,000-16,000 lb.	171	5	1,823	1,767	349	746	732	23
19	16,000-18,000 lb.	158	12	1,574	1,677	310	670	677	52
20	18,000-20,000 lb.	230	19	2,512	2,471	483	1,036	987	82

TRAF WGT | TRK VAL | <Outputs> | EXP OUT | REV OUT | RATIOS OUT

Ready NUM

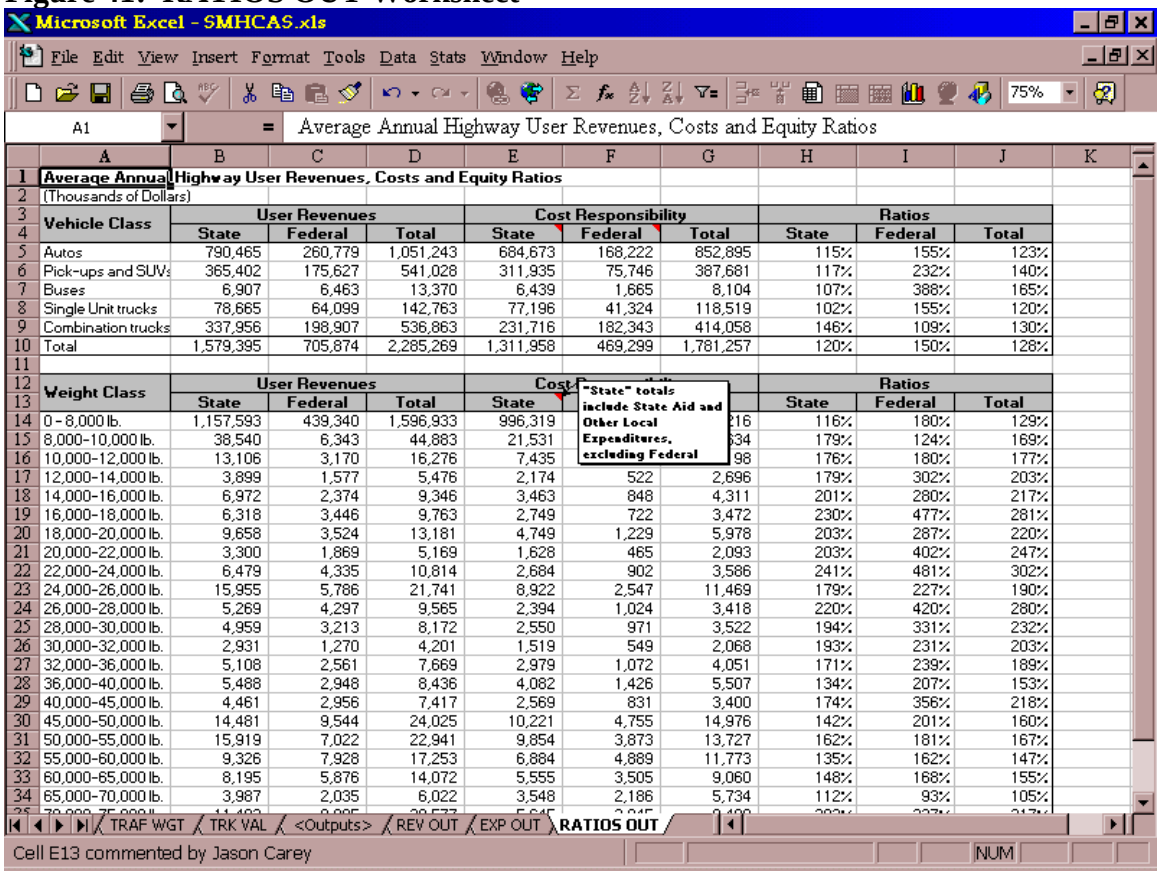
The three basic categories of expenditure include several subsets of data. These data and the means by which they are allocated, are listed in the following table.

Table 17: SMHCAS Expenditure Source Data and Allocation Methods

Expenditure Type	Source Data and Method of Allocation
Capacity-driven	• Includes: State and Federal portions of Obligation Program expenditures on urban highway routes; Regional Capital Improvement Plan expenditures; capital outlays by cities and towns • Allocated to vehicle/weight class by share of urban VMT.
Strength-driven	• Includes: State and Federal portions of Obligation Program expenditures on rural highway routes; capital outlays by counties; pavement maintenance • Allocated to vehicle/weight class according to ESAL load-adjusted share of rural VMT.
Common costs	• Includes: Non-route specific (route 999) Obligation Program expenditures; non-pavement maintenance; state operating program and overhead; debt service; highway patrol and other road services • Allocated to vehicle/weight classes by share of total VMT.

The 'RATIOS OUT' worksheet provides equity ratios of highway user revenues to cost responsibility for each vehicle and weight class category. Revenues and cost responsibility results from the 'REV OUT' and 'EXP OUT' worksheets have been aggregated in "state" and "federal" output columns, as well as output totals. As noted in the comment box in Figure 41, the "state" output results include local government expenditures of State Aid and local funds, but exclude local receipts of federal funds. This distinction has been made so that the SMHCAS results may be used for analysis of statewide revenues and expenditures excluding federal funds.

Figure 41: RATIOS OUT Worksheet



Microsoft Excel - SMHCAS.xls

File Edit View Insert Format Tools Data Stats Window Help

A1 = Average Annual Highway User Revenues, Costs and Equity Ratios

	A	B	C	D	E	F	G	H	I	J	K
1	Average Annual Highway User Revenues, Costs and Equity Ratios										
2	(Thousands of Dollars)										
3	Vehicle Class	User Revenues			Cost Responsibility			Ratios			
4		State	Federal	Total	State	Federal	Total	State	Federal	Total	
5	Autos	790,465	260,779	1,051,243	684,673	168,222	852,895	115%	155%	123%	
6	Pick-ups and SUVs	365,402	175,627	541,028	311,935	75,746	387,681	117%	232%	140%	
7	Buses	6,907	6,463	13,370	6,439	1,665	8,104	107%	388%	165%	
8	Single Unit trucks	78,665	64,099	142,763	77,196	41,324	118,519	102%	155%	120%	
9	Combination trucks	337,956	198,907	536,863	231,716	182,343	414,058	146%	109%	130%	
10	Total	1,579,395	705,874	2,285,269	1,311,958	469,299	1,781,257	120%	150%	128%	
11											
12	Weight Class	User Revenues			Cost			Ratios			
13		State	Federal	Total	State			State	Federal	Total	
14	0 - 8,000 lb.	1,157,593	439,340	1,596,933	996,319		216	116%	180%	129%	
15	8,000-10,000 lb.	38,540	6,343	44,883	21,531		634	179%	124%	169%	
16	10,000-12,000 lb.	13,106	3,170	16,276	7,435		98	176%	180%	177%	
17	12,000-14,000 lb.	3,899	1,577	5,476	2,174	522	2,696	179%	302%	203%	
18	14,000-16,000 lb.	6,972	2,374	9,346	3,463	848	4,311	201%	280%	217%	
19	16,000-18,000 lb.	6,318	3,446	9,763	2,749	722	3,472	230%	477%	281%	
20	18,000-20,000 lb.	9,658	3,524	13,181	4,749	1,229	5,978	203%	287%	220%	
21	20,000-22,000 lb.	3,300	1,869	5,169	1,628	465	2,093	203%	402%	247%	
22	22,000-24,000 lb.	6,479	4,335	10,814	2,684	902	3,586	241%	481%	302%	
23	24,000-26,000 lb.	15,955	5,786	21,741	8,922	2,547	11,469	179%	227%	190%	
24	26,000-28,000 lb.	5,269	4,297	9,565	2,394	1,024	3,418	220%	420%	280%	
25	28,000-30,000 lb.	4,959	3,213	8,172	2,550	971	3,522	194%	331%	232%	
26	30,000-32,000 lb.	2,931	1,270	4,201	1,519	549	2,068	193%	231%	203%	
27	32,000-36,000 lb.	5,108	2,561	7,669	2,979	1,072	4,051	171%	239%	189%	
28	36,000-40,000 lb.	5,488	2,948	8,436	4,082	1,426	5,507	134%	207%	153%	
29	40,000-45,000 lb.	4,461	2,956	7,417	2,569	831	3,400	174%	356%	218%	
30	45,000-50,000 lb.	14,481	9,544	24,025	10,221	4,755	14,976	142%	201%	160%	
31	50,000-55,000 lb.	15,919	7,022	22,941	9,854	3,873	13,727	162%	181%	167%	
32	55,000-60,000 lb.	9,326	7,928	17,253	6,884	4,889	11,773	135%	162%	147%	
33	60,000-65,000 lb.	8,195	5,876	14,072	5,555	3,505	9,060	148%	168%	155%	
34	65,000-70,000 lb.	3,987	2,035	6,022	3,548	2,186	5,734	112%	93%	105%	

"State" totals include State Aid and Other Local Expenditures, excluding Federal

TRAF WGT | TRK VAL | <Outputs> | REV OUT | EXP OUT | RATIOS OUT

Cell E13 commented by Jason Carey

NUM

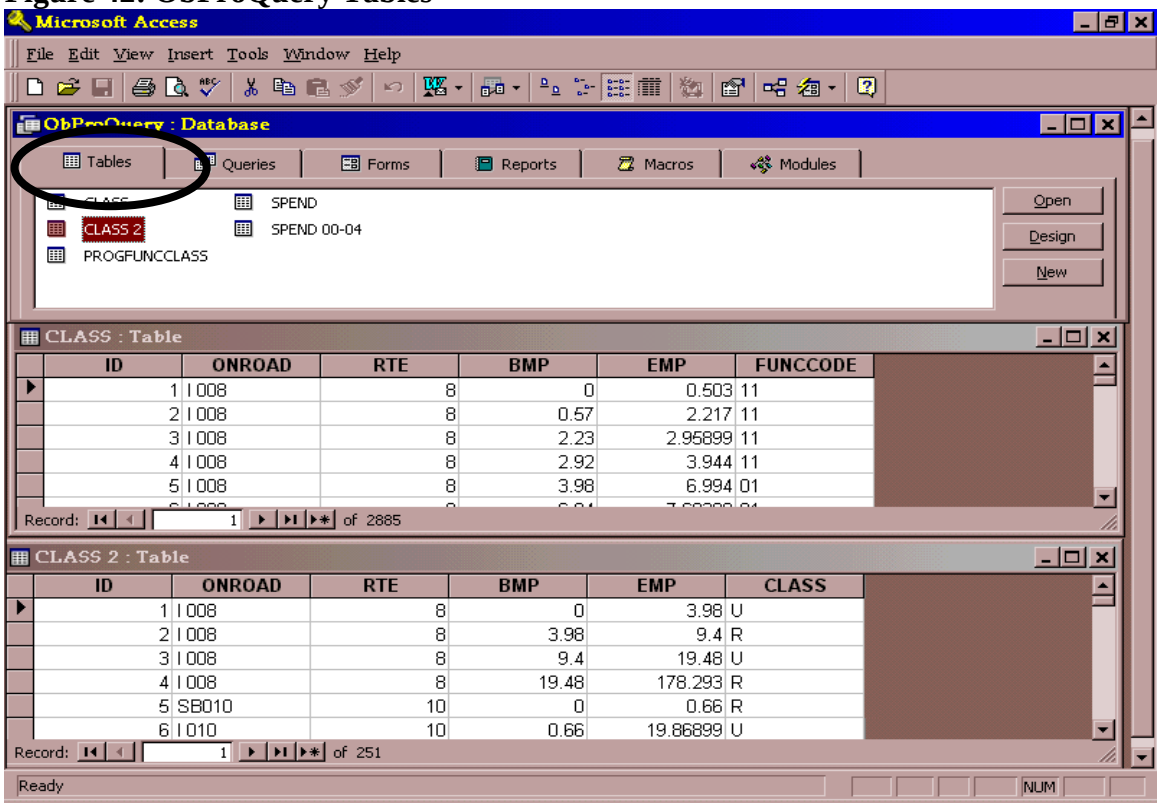
Appendix B: Suggested Methods for Sorting ADOT Obligation Program

Both the SMHCAS and the FHCAS rely on the allocation of construction expenditures by functional class of roadway. Although the ADOT Five-Year Obligation Program does not classify construction expenditures in this manner, construction costs are grouped by highway segment. Conversion of segments to functional class of roadway can be accomplished manually or through the use of an Access database query developed for this study. Note that the database tables and queries described below are *not* part of the FHCAS or SMHCAS models. However, use of these tools may expedite the conversion of Obligation Program expenditures to functional class of roadway.

Functional Class of Roadway Data

The Microsoft Access file included with this report contains a recent database of roadway segments and functional classifications. While an effort has been made to "clean up" this database, many of the road segments are disjointed or overlap. Because the data produced by the query are only as reliable as the functional class references, a thorough examination of the functional classification data is warranted.[28]

Figure 42: ObProQuery Tables



[28] Refer to Matranga and Semmens, *Rural versus Urban Distributions of Traffic and Highway Expenditures*, ADOT, 2000 for updates when available.

The 'ObProQuery.MDB' database consists of two tables representing summary and details of highway segments by functional class, tabulations of the Five-year Obligation Program, and queries that connect the functional class tables to the expenditure tables. When opened, the file will appear in a similar layout to the figure above. To open a specific table, ensure that the "Tables" tab is selected (see the circled entry in Figure 42), click on the desired table(s) and press the "Open" button. Figure 42 shows the "Tables" tab, as well as the two functional class of roadway tables in the database, 'CLASS' and 'CLASS 2'.

Two tables in the ObProQuery.MDB file contain functional classifications of roadways on the Arizona highway system. The 'CLASS' table lists the raw data that were obtained for this report. Nearly three thousand segments, often under one mile in length, have been classified by numerical codes pertaining to various functional classes of roadway in the 'CLASS' table.

Roadway Functional Classifications

1	Rural Principal Arterial - Interstate	**11**	Urban Principal Arterial - Interstate
2	Rural Principal Arterial - Other	**12**	Urban Principal Arterial - Freeway
6	Rural Minor Arterial	**14**	Urban Principal Arterial - Other
7	Rural Major Collector	**16**	Urban Minor Arterial
8	Rural Minor Collector	**17**	Urban Collector

In an effort to reduce duplicate classifications of longer segments in the Obligation Program, the 'CLASS 2' table was created. 'CLASS 2' aggregates many of the segments listed in 'CLASS', inserting breaks only when the functional class of roadway changes between Urban and Rural. Furthermore, 'CLASS 2' converts the numerical codes in 'CLASS' to simple designations of "U" (urban) and "R" (rural) for each segment. While these classifications are too simplistic for use in the FHCAS model, the SMHCAS requires only the broad urban and rural designations. Conversion of 'CLASS' to 'CLASS 2' has reduced the total number of road segments queried from 2,885 to 251, vastly simplifying the classification of Obligation Program segments for the SMHCAS model and reducing the number of overlap errors generated by the query (see below).

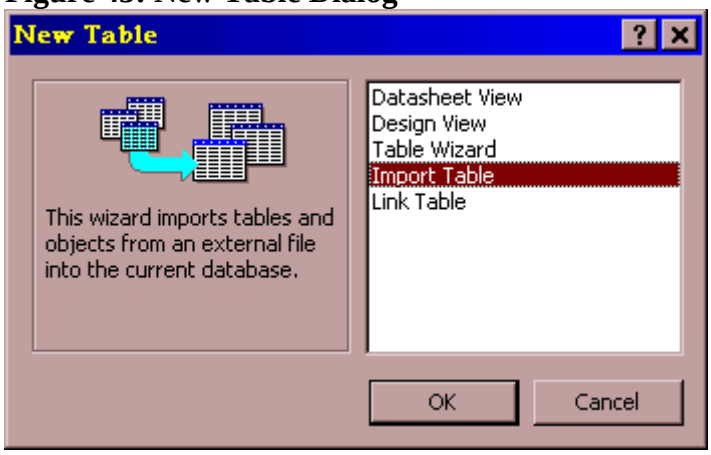
Conversion of the Obligation Program

The ADOT Five-Year Obligation Program is produced in Microsoft Excel format. In order to run the query assigning functional classes of roadway to the Obligation Program segments, it is first necessary to convert the Obligation Program to Microsoft Access. This conversion can be done by following the steps listed below.

1. Be sure that a current version of the Obligation Program is available on the computer being used. Note the Excel file name for the Obligation Program file.

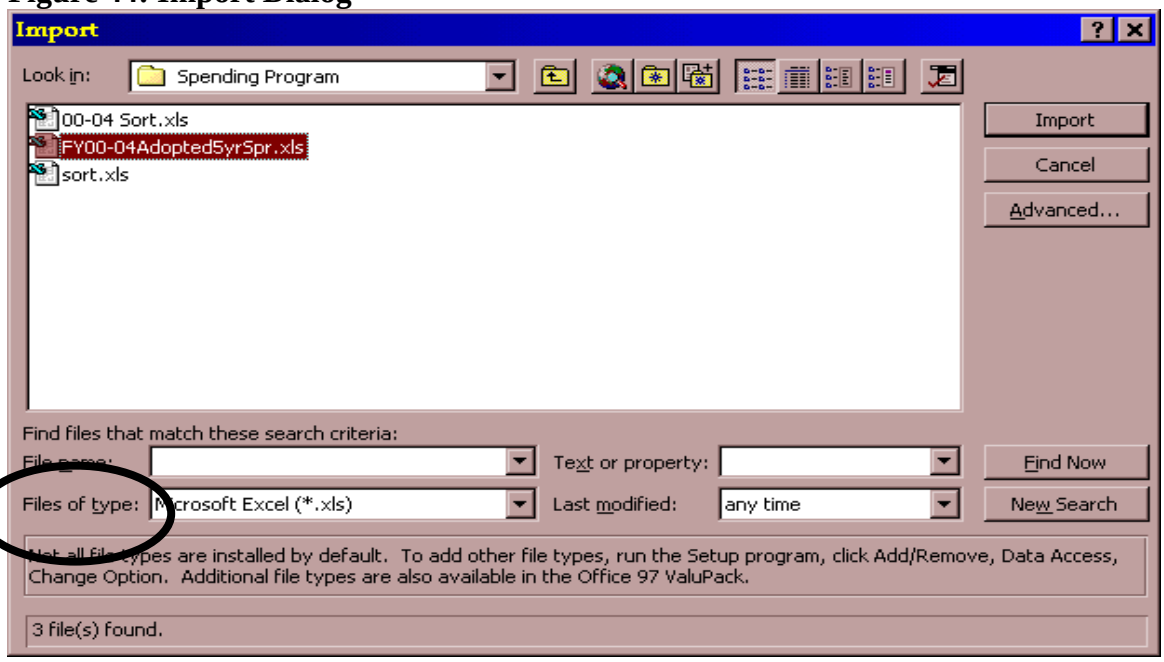
2. From the "Tables" screen (shown in Figure 42 above), select "New" from the list of options on the right side. A pop-up dialog box will appear, as shown below. Select "Import Table" from the list of available options.

Figure 43: New Table Dialog



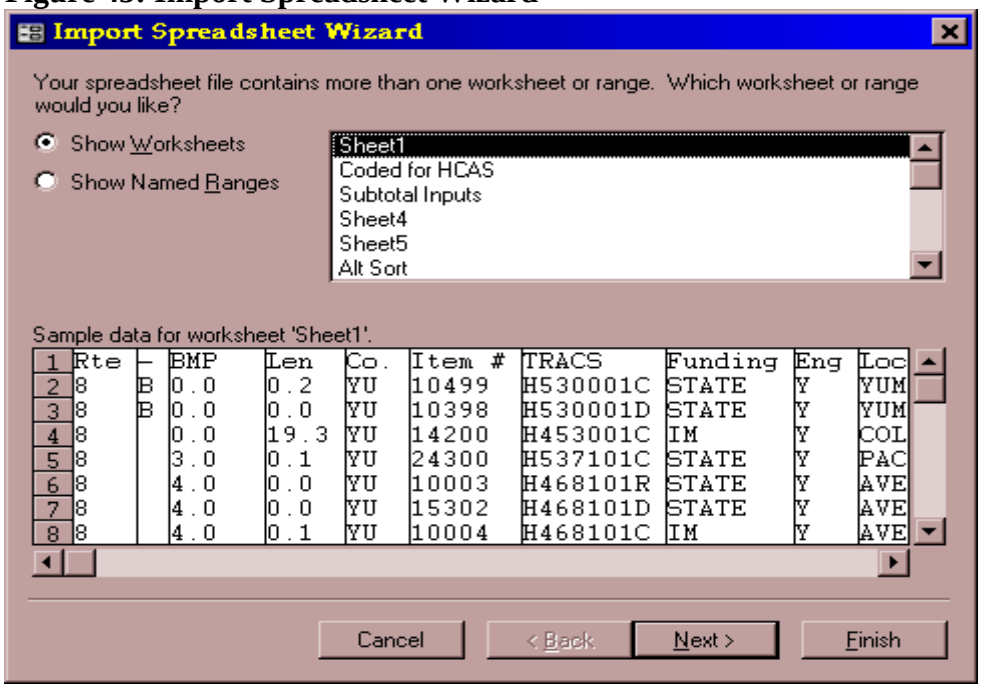
3. Another dialog box will appear, prompting the user for a file to import. Be sure that the "Files of type" selection (circled in Figure 44) is "Microsoft Excel." Browse the host computer for the Obligation Program file. Select the file and press the "Import" button.

Figure 44: Import Dialog



4. An "Import Spreadsheet Wizard" (Figure 45) will guide the user through the rest of the import process. Be sure that the correct worksheet is selected if there are multiple sheets in the workbook. If the data are not divided appropriately, click on the vertical lines dividing each field to move the divisions. Double-clicking these lines should delete a division, combining two data fields. When the proper worksheet(s) and field(s) have been selected, press "Finish" and name the new Obligation Program table.

Figure 45: Import Spreadsheet Wizard



	Rte	–	BMP	Len	Co.	Item #	TRACS	Funding	Eng	Loc
1										
2	8	B	0.0	0.2	YU	10499	H530001C	STATE	Y	YUM
3	8	B	0.0	0.0	YU	10398	H530001D	STATE	Y	YUM
4	8		0.0	19.3	YU	14200	H453001C	IM	Y	COL
5	8		3.0	0.1	YU	24300	H537101C	STATE	Y	PAC
6	8		4.0	0.0	YU	10003	H468101R	STATE	Y	AVE
7	8		4.0	0.0	YU	15302	H468101D	STATE	Y	AVE
8	8		4.0	0.1	YU	10004	H468101C	IM	Y	AVE

Once the new Obligation Program has been imported into the database, a new query will have to be run between the CLASS 2 table and the new Obligation Program (referred to as the 'OP NEW' table for the remainder of these instructions.

Queries

The 'CLASS 2 New' query format should be used when classifying the 'OP NEW' expenditures. This query produced a 91 percent match rate for identification of roadway functional class according to mile posts.[29] Items that are not classified according to the query will have to be classified manually. To create a duplicate query that references 'OP NEW', follow the steps below.

1. Switch from the "Tables" tab to the "Queries" tab in the start-up menu (shown in Figure 42 above). A similar list will appear, replacing the tables with available queries. A sample is illustrated in Figure 46.

2. From the "Queries" tab, select "New" at the right hand side of the screen. This will open a series of dialog boxes. The first of these (see Figure 46) asks for a visual format in which the query will be constructed. As indicated in Figure 46, select the "Design View."

[29] The query matched 593 of 653 segment expenditures in the 2000-2004 Obligation Program.

Figure 46: ObProQuery Queries

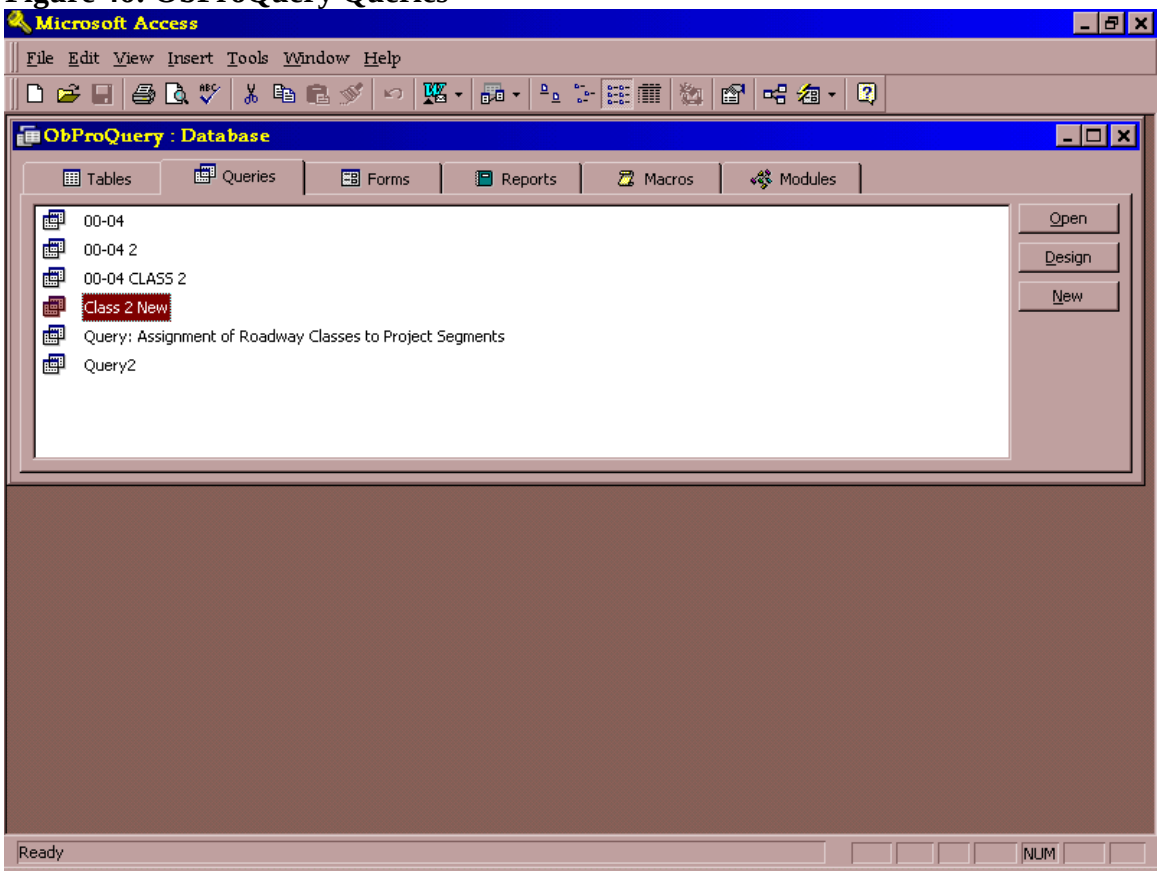
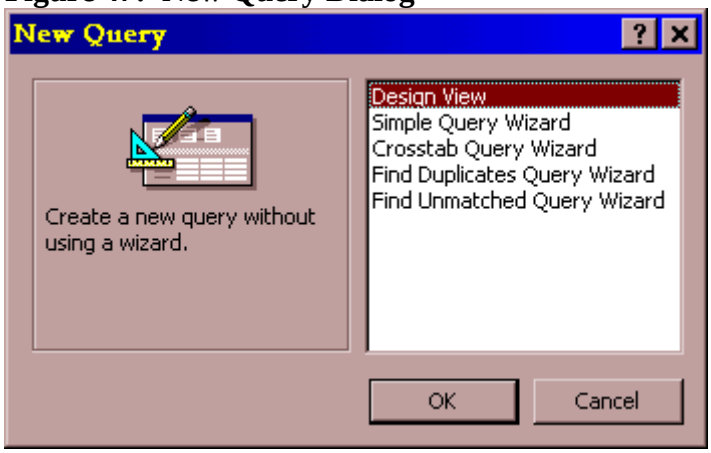
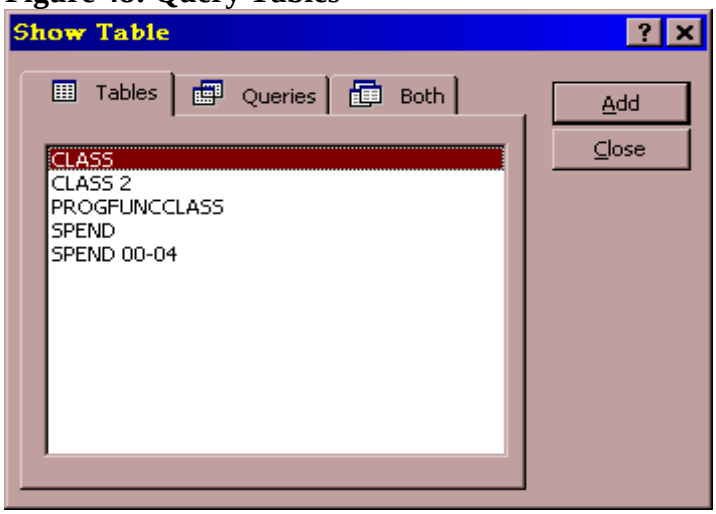


Figure 47: New Query Dialog



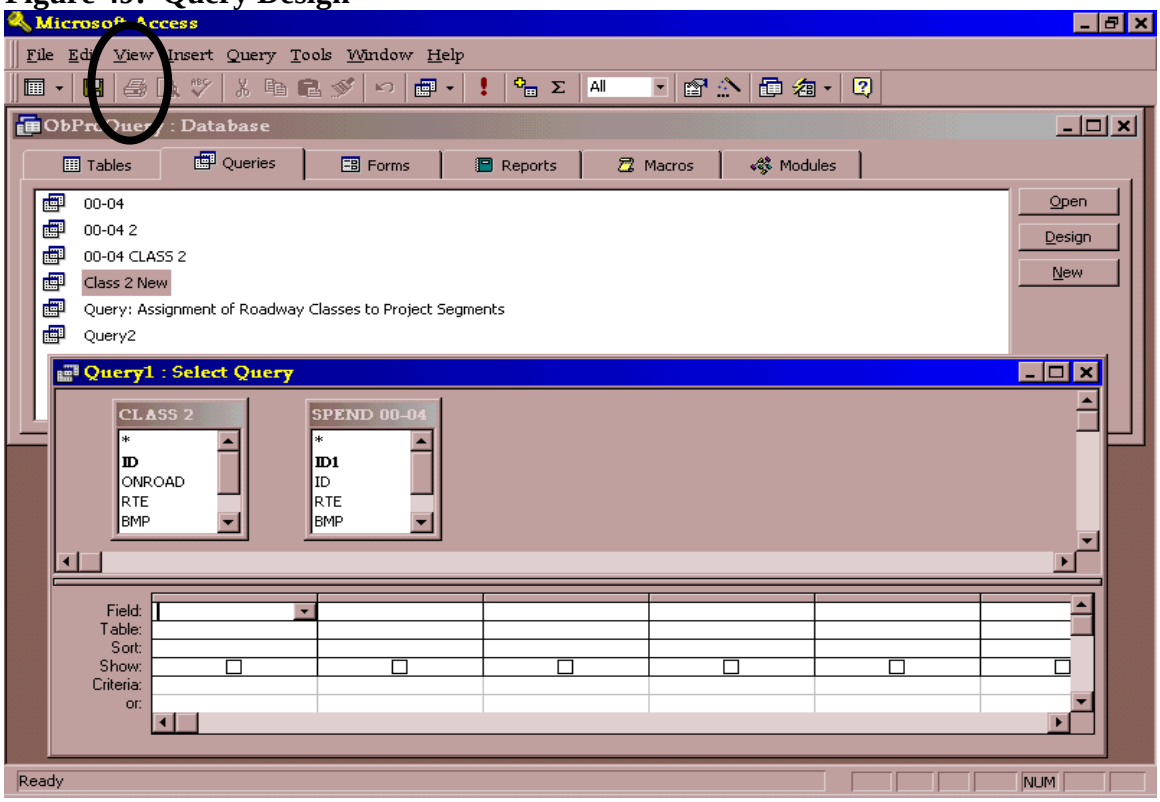
3. When the "Design View" is selected, a new dialog box will appear. This dialog, shown in Figure 48, asks which tables will be included in the new query. To convert the new Obligation Program for use with the SMHCAS, select the 'CLASS 2' table and the 'OP NEW' table. Press the "Add" button after each of the tables are selected. Press the "Close" button once the two tables have been selected.

Figure 48: Query Tables



4. Once the appropriate tables have been added and the dialog box closed, a "Query Design" form will appear. A sample is illustrated in Figure 49. However, it will be easier to create the new query by changing the associated SQL code. Therefore, rather than manipulating the fields shown in the "Query1: Select Query" box, it is recommended that the user select "View" from the menu bar (circled below) and choose "SQL View."

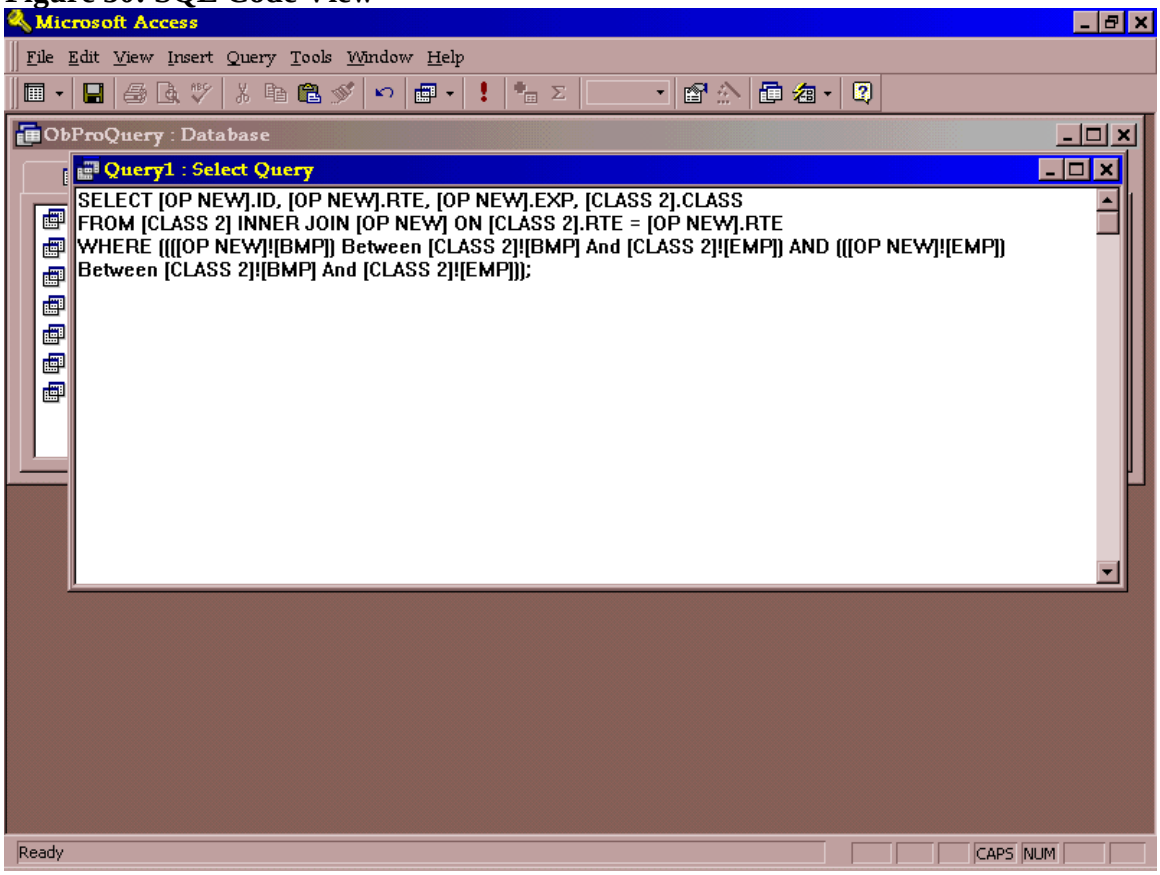
Figure 49: Query Design



5. Selecting the "SQL View" will cause the appearance of the "Query1: Select Query" box to change. The new box will contain only a string of text. The simplest means of updating the query is to replace the string of text with the new query code. Delete the text shown in the "Query1" box, and type the following code directly into the query box, as shown in Figure 50:

SELECT [OP NEW].ID, [OP NEW].RTE, [OP NEW].EXP, [CLASS 2].CLASS
FROM [CLASS 2] INNER JOIN [OP NEW] ON [CLASS 2].RTE = [OP NEW].RTE
WHERE ((([OP NEW]![BMP]) Between [CLASS 2]![BMP] And [CLASS 2]![EMP]) AND (([OP NEW]![EMP]) Between [CLASS 2]![BMP] And [CLASS 2]![EMP]));

Figure 50: SQL Code View



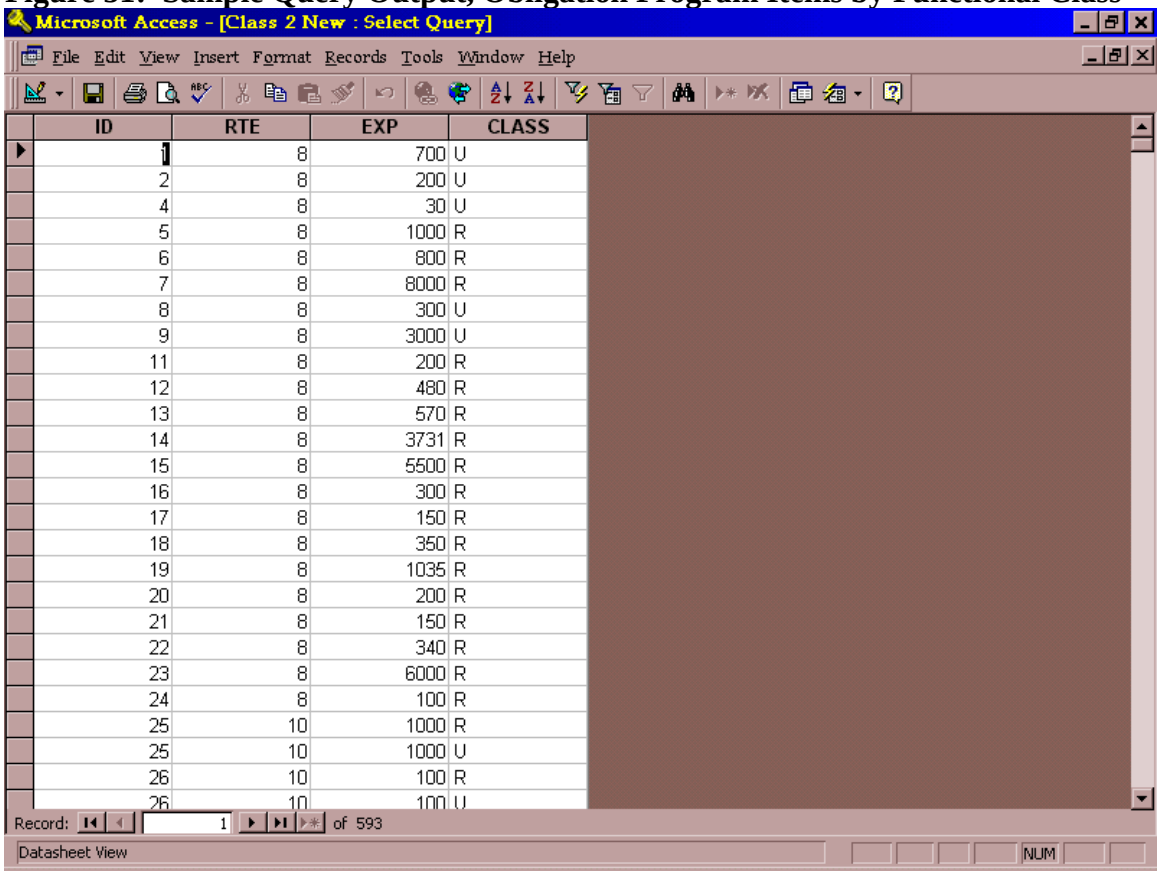
***NOTE: Use the name of the new Obligation Program table in every reference to 'OP NEW' shown above. All bracketed entries must be present in the "Tables" section.*

6. Once the SQL code has been updated, click the close button at the top right corner of the "Query1: Select Query" box. Rename the query when prompted.

7. The new query will be immediately available from the "Queries" tab. Simply highlight the query and press the "Open" button. This will create an output table that includes a Segment Identification Number, Highway Route Number, Total Expenditures, and a Functional Classification ("R" for rural, "U" for urban). An example is shown in Figure

51. This table can be highlighted and copied back to Excel for further analysis. Note that not all highway segments will be classified. The total count of classified segments is shown at the bottom of the screen. Missing segments will need to be verified according to the Obligation Program beginning and ending mileposts.

Figure 51: Sample Query Output, Obligation Program Items by Functional Class



ID	RTE	EXP	CLASS
1	8	700	U
2	8	200	U
4	8	30	U
5	8	1000	R
6	8	800	R
7	8	8000	R
8	8	300	U
9	8	3000	U
11	8	200	R
12	8	480	R
13	8	570	R
14	8	3731	R
15	8	5500	R
16	8	300	R
17	8	150	R
18	8	350	R
19	8	1035	R
20	8	200	R
21	8	150	R
22	8	340	R
23	8	6000	R
24	8	100	R
25	10	1000	R
25	10	1000	U
26	10	100	R
26	10	100	U

Depending on the number of line items requiring classification, it may be easier to sort the Obligation Program without the aid of the query discussed above. While this query is expected to lessen the amount of time required for an update, a high failure rate in the number of successful record matches will negate its usefulness. These instructions have been provided simply to outline possible means of sorting the Obligation Program automatically. A decision not to use this method will have no impact on the functionality of the SMHCAS or FHCAS models.

APPENDIX C: SIMPLIFIED MODEL CELL FORMULAS

EXP IN

	A	B	C	D	E	F	G	H
1	**PROGRAM PERIOD**					**EXPENDITURE PROGRAM INPUTS (Thousands of Dollars)**		
2	**Start Year**	**2000**				**Category Inputs**	**YEAR 1**	**YEAR 2**
3	**End Year**	**2004**					**=B2**	**=G3+1**
4	**Midpoint**	=(B3-B2+1)/2+B2				**Discretionary Fund**		
5						Total Available	463725	531291
6	**ADOT Obligation Program (Sorted)** [d]					Operating Program	247446	254591
7	(Thousands of Dollars)					Land, Bldg & Improvements	16100	16900
8	**Expend Class**	**Funding Source**		**Total**		Arbitrage Expenses	0	0
9		**State**	**Federal**			DPS Transfer	10000	10000
10	Urban	125894.366692127	598429.081271207	=SUM(B10:C10)		Debt Service	45732	45502
11	Rural	185850.633307873	907683.918728793	=SUM(B11:C11)		GITA	0	0
12	Common	543661	316884	=SUM(B12:C12)		HURF Available for Construction	=G5-SUM(G6:G11)	=H5-SUM(H6:H11)
13	Total	=SUM(B10:B12)	=SUM(C10:C12)	=SUM(D10:D12)		Federal Aid	300816	306647
14						Federal Aid (PLH FL)	5800	0
15	**Adjusted Construction Program**					Set Aside for SIBS	0	0
16	(Thousands of Dollars)					Local/Private/3rd Party	3141	1000
17	**Expend Class**	**Funding Source**		**Total**		Inflation Cost Estimate	0	10000
18		**State**	**Federal**			Programmed/Scheduled Bids	522447	459291
19	Urban	=IF($M$12>$B$13,$M$12*($B10/$B$13),B10)	=IF($M$20>$C$13,$M$20*($C10/$C$13),C10)	**=SUM(B19:C19)**		**Federal Apportionments**		
20	Rural	=IF($M$12>$B$13,$M$12*($B11/$B$13),B11)	=IF($M$20>$C$13,$M$20*($C11/$C$13),C11)	**=SUM(B20:C20)**		State Programmable Funds	=0.88*G13	=0.98*H13
21	Common	=IF($M$12>$B$13,$M$12*($B12/$B$13),B12)	=IF($M$20>$C$13,$M$20*($C12/$C$13),C12)	**=SUM(B21:C21)**		Maricopa Urban Programmable	63264	64659
22	**Total**	=SUM(B19:B21)	=SUM(C19:C21)	**=SUM(D19:D21)**		Pima Urban Programmable	14677	14884
23						Other Local Programmable	9627	9631
24						Highway Patrol		
25						**Regional CIPs**		
26						MAG & RARF	=235415-SUM(G21,G33)	=140375+75447-SUM(H21,H33)
27						PAG	21583	13939
28						**Interest on Bonds**		
29						RARF	36430	30334
30						HURF	28673	26050
31						**HURF Distribution Forecast**		
32						Highway Fund	407213	420917
33						MAG/PAG	72991	75447
34						Cities & Towns	290025	299785
35						Counties	180671	186751

EXP IN

	I	J	K	L	M
1					
2	YEAR 3	YEAR 4	YEAR 5	AVERAGE	TOTAL
3	=H3+1	=I3+1	=J3+1		
4					
5	505168	558972	559025	=AVERAGE(G5:K5)	=SUM(G5:K5)
6	266512	277173	288260	=AVERAGE(G6:K6)	=SUM(G6:K6)
7	12000	12000	12000	=AVERAGE(G7:K7)	=SUM(G7:K7)
8	0	0	0	=AVERAGE(G8:K8)	=SUM(G8:K8)
9	10000	10000	10000	=AVERAGE(G9:K9)	=SUM(G9:K9)
10	40663	43142	43142	=AVERAGE(G10:K10)	=SUM(G10:K10)
11	0	0	0	=AVERAGE(G11:K11)	=SUM(G11:K11)
12	=I5-SUM(I6:I11)	=J5-SUM(J6:J11)	=K5-SUM(K6:K11)	=AVERAGE(G12:K12)	=SUM(G12:K12)
13	312124	318270	318270	=AVERAGE(G13:K13)	=SUM(G13:K13)
14	10000	0	0	=AVERAGE(G14:K14)	=SUM(G14:K14)
15	0	0	0	=AVERAGE(G15:K15)	=SUM(G15:K15)
16	0	0	0	=AVERAGE(G16:K16)	=SUM(G16:K16)
17	10000	19611	18094	=AVERAGE(G17:K17)	=SUM(G17:K17)
18	493948	560308	516978	=AVERAGE(G18:K18)	=SUM(G18:K18)
19					
20	=0.98*I13	=0.98*J13	=0.98*K13	=M20/5	=SUM(G20:K20)
21	65858	67224	67224	=M21/5	=(0.88*G21)+(0.98*SUM(H21:K21))
22	15063	15267	15267	=M22/5	=(0.88*G22)+(0.98*SUM(H22:K22))
23	9634	9638	9638	=M23/5	=(0.88*G23)+(0.98*SUM(H23:K23))
24				=M24/5	=SUM(G24:K24)
25					
26	=70620+78710-SUM(I21,I33)	=140873+81711-SUM(J21,J33)	=136258+85419-SUM(K21,K33)	=AVERAGE(G26:K26)	=SUM(G26:K26)
27	13953	7970	7865	=AVERAGE(G27:K27)	=SUM(G27:K27)
28					
29	38232	33165	28193	=AVERAGE(G29:K29)	=SUM(G29:K29)
30	23279	21657	19516	=AVERAGE(G30:K30)	=SUM(G30:K30)
31					
32	439117	455861	476545	=AVERAGE(G32:K32)	=SUM(G32:K32)
33	78710	81711	85419	=AVERAGE(G33:K33)	=SUM(G33:K33)
34	312747	324673	339404	=AVERAGE(G34:K34)	=SUM(G34:K34)
35	194826	202255	211432	=AVERAGE(G35:K35)	=SUM(G35:K35)

REV IN

	A	B	C	D	E	F	G
1	**PROGRAM PERIOD**			**REVENUE INPUTS (Thousands of Dollars)**			
2	**Start Year**	**2000**		**Category Inputs**	**YEAR 1**	**YEAR 2**	**YEAR 3**
3	**End Year**	**2004**			**=B2**	**=E3+1**	**=F3+1**
4	**Midpoint**	=(B3-B2+1)/2+B2		**HURF Revenue Forecast**			
5				Gas Tax	400060	411490	422140
6	**State Fuel Tax Rates**			Use Fuel (Diesel)	159020	156850	161120
7	Gas	0.18		VLT	237000	255960	276437
8	Diesel	0.18		Adjusted VLT	=E7/$B$15	=F7/$B$15	=G7/$B$15
9				Registration & Wgt.	137050	141540	144270
10	**Federal Fuel Tax**			Motor Carrier Fees	46670	47620	48630
11	Gas	0.184		Other State Fees	34200	35310	36060
12	Diesel	0.244		**State Subtotal**	=SUM(E5:E6,E8:E11)	=SUM(F5:F6,F8:F11)	=SUM(G5:G6,G8:G11)
13				**Federal Revenue Forecast**			
14	**VLT Distribution**			Gas Tax	=($B$11/$B$7)*E5	=($B$11/$B$7)*F5	=($B$11/$B$7)*G5
15	HURF	0.4274		Use Fuel Tax	=($B$12/$B$8)*E6	=($B$12/$B$8)*F6	=($B$12/$B$8)*G6
16				Sales Tax			
17				Use Tax			
18				Tire Tax			
19				**Federal Subtotal**	=SUM(E14:E18)	=SUM(F14:F18)	=SUM(G14:G18)
20				**Total**	=SUM(E12,E19)	=SUM(F12,F19)	=SUM(G12,G19)
21							
22				**HURF Reg. & Wgt. Split**			
23				Reg. & Weight	=E$9*'FEE SPLIT'!$F4	=F$9*'FEE SPLIT'!$F4	=G$9*'FEE SPLIT'!$F4
24				Registration	=E$9*'FEE SPLIT'!$F5	=F$9*'FEE SPLIT'!$F5	=G$9*'FEE SPLIT'!$F5
25				Weight	=E$9*'FEE SPLIT'!$F6	=F$9*'FEE SPLIT'!$F6	=G$9*'FEE SPLIT'!$F6
26				Apportioned	=E$9*'FEE SPLIT'!$F7	=F$9*'FEE SPLIT'!$F7	=G$9*'FEE SPLIT'!$F7
27				Permit & Penalties	=E$9*'FEE SPLIT'!$F8	=F$9*'FEE SPLIT'!$F8	=G$9*'FEE SPLIT'!$F8
28							
29				**HURF Other Fees Split**			
30				Common	='FEE SPLIT'!$D30*E$11	='FEE SPLIT'!$D30*F$11	='FEE SPLIT'!$D30*G$11
31				Truck	='FEE SPLIT'!$D31*E$11	='FEE SPLIT'!$D31*F$11	='FEE SPLIT'!$D31*G$11
32							
33				**Federal Revenue Projections**			
34				Sales Tax	=IF(E16=0,('FED FEES'!$F36*('FED FEES'!$G36^('REV IN'!G$3-AVERAGE('FED FEES'!$B$35:$E$35)))),E16)	=IF(F16=0,('FED FEES'!$F36*('FED FEES'!$G36^('REV IN'!H$3-AVERAGE('FED FEES'!$B$35:$E$35)))),F16)	=IF(G16=0,('FED FEES'!$F36*('FED FEES'!$G36^('REV IN'!I$3-AVERAGE('FED FEES'!$B$35:$E$35)))),G16)
35				Use Tax	=IF(E17=0,('FED FEES'!$F37*('FED FEES'!$G37^('REV IN'!G$3-AVERAGE('FED FEES'!$B$35:$E$35)))),E17)	=IF(H17=0,('FED FEES'!$F37*('FED FEES'!$G37^('REV IN'!H$3-AVERAGE('FED FEES'!$B$35:$E$35)))),F17)	=IF(G17=0,('FED FEES'!$F37*('FED FEES'!$G37^('REV IN'!I$3-AVERAGE('FED FEES'!$B$35:$E$35)))),G17)
36				Tire Tax	=IF(E18=0,('FED FEES'!$F38*('FED FEES'!$G38^('REV IN'!G$3-AVERAGE('FED FEES'!$B$35:$E$35)))),E18)	=IF(F18=0,('FED FEES'!$F38*('FED FEES'!$G38^('REV IN'!H$3-AVERAGE('FED FEES'!$B$35:$E$35)))),F18)	=IF(G18=0,('FED FEES'!$F38*('FED FEES'!$G38^('REV IN'!I$3-AVERAGE('FED FEES'!$B$35:$E$35)))),G18)

REV IN

	H	I	J	K
1				
2	**YEAR 4**	**YEAR 5**	**AVERAGE**	**TOTAL**
3	**=G3+1**	**=H3+1**		
4				
5	443970	456930	=AVERAGE(E5:I5)	=SUM(E5:I5)
6	166170	172040	=AVERAGE(E6:I6)	=SUM(E6:I6)
7	298552	322436	=AVERAGE(E7:I7)	=SUM(E7:I7)
8	=H7/$B$15	=I7/$B$15	=AVERAGE(E8:I8)	=SUM(E8:I8)
9	148200	152700	=AVERAGE(E9:I9)	=SUM(E9:I9)
10	49530	50900	=AVERAGE(E10:I10)	=SUM(E10:I10)
11	37020	38180	=AVERAGE(E11:I11)	=SUM(E11:I11)
12	=SUM(H5:H6,H8:H11)	=SUM(I5:I6,I8:I11)	=SUM(J5:J6,J8:J11)	=SUM(K5:K6,K8:K11)
13				
14	=($B$11/$B$7)*H5	=($B$11/$B$7)*I5	=AVERAGE(E14:I14)	=SUM(E14:I14)
15	=($B$12/$B$8)*H6	=($B$12/$B$8)*I6	=AVERAGE(E15:I15)	=SUM(E15:I15)
16			=IF(SUM(E16:I16)=0,"n/a",AVERAGE(E16:I16))	=SUM(E16:I16)
17			=IF(SUM(E17:I17)=0,"n/a",AVERAGE(E17:I17))	=SUM(E17:I17)
18			=IF(SUM(E18:I18)=0,"n/a",AVERAGE(E18:I18))	=SUM(E18:I18)
19	=SUM(H14:H18)	=SUM(I14:I18)	=SUM(J14:J18)	=SUM(K14:K18)
20	=SUM(H12,H19)	=SUM(I12,I19)	=SUM(J12,J19)	=SUM(K12,K19)
21				
22				
23	=H$9*'FEE SPLIT'!$F4	=I$9*'FEE SPLIT'!$F4	=AVERAGE(E23:I23)	=SUM(E23:I23)
24	=H$9*'FEE SPLIT'!$F5	=I$9*'FEE SPLIT'!$F5	=AVERAGE(E24:I24)	=SUM(E24:I24)
25	=H$9*'FEE SPLIT'!$F6	=I$9*'FEE SPLIT'!$F6	=AVERAGE(E25:I25)	=SUM(E25:I25)
26	=H$9*'FEE SPLIT'!$F7	=I$9*'FEE SPLIT'!$F7	=AVERAGE(E26:I26)	=SUM(E26:I26)
27	=H$9*'FEE SPLIT'!$F8	=I$9*'FEE SPLIT'!$F8	=AVERAGE(E27:I27)	=SUM(E27:I27)
28				
29				
30	='FEE SPLIT'!$D30*H$11	='FEE SPLIT'!$D30*I$11	=AVERAGE(E30:I30)	=SUM(E30:I30)
31	='FEE SPLIT'!$D31*H$11	='FEE SPLIT'!$D31*I$11	=AVERAGE(E31:I31)	=SUM(E31:I31)
32				
33				
34	=IF(H16=0,('FED FEES'!$F36*('FED FEES'!$G36^('REV IN'!H$3-AVERAGE('FED FEES'!$B$35:$E$35)))),H16)	=IF(I16=0,('FED FEES'!$F36*('FED FEES'!$G36^('REV IN'!I$3-AVERAGE('FED FEES'!$B$35:$E$35)))),I16)	=AVERAGE(E34:I34)	=SUM(E34:I34)
35	=IF(H17=0,('FED FEES'!$F37*('FED FEES'!$G37^('REV IN'!H$3-AVERAGE('FED FEES'!$B$35:$E$35)))),H17)	=IF(I17=0,('FED FEES'!$F37*('FED FEES'!$G37^('REV IN'!I$3-AVERAGE('FED FEES'!$B$35:$E$35)))),I17)	=AVERAGE(E35:I35)	=SUM(E35:I35)
36	=IF(H18=0,('FED FEES'!$F38*('FED FEES'!$G38^('REV IN'!H$3-AVERAGE('FED FEES'!$B$35:$E$35)))),H18)	=IF(I18=0,('FED FEES'!$F38*('FED FEES'!$G38^('REV IN'!I$3-AVERAGE('FED FEES'!$B$35:$E$35)))),I18)	=AVERAGE(E36:I36)	=SUM(E36:I36)

HPMS IN

	A	B	C	D	E	F	G	H
1	**Base Period VMT**							
2						**Year**	**All Hwys**	**State Syst**
3	**Rural**	**1987**	**1992**	**1997**		1987	31728.72	13254.387
4	Interstate	12692	13963	16320		1988	34153.05	13502.824
5	OPA	3865	4635	6514		1989	34815.525	14716.663
6	Minor Arterial	4802	6034	5132		1990	35455.735	14691.833
7	Major Coll	5636	7926	8264		1991	34927.215	14939.882
8	Minor Coll	1002	720	1356		1992	34952.4	15433.66
9	Local	21217	4395	4649		1993	37653.765	16335.21
10	**Total Rural**	=SUM(B4:B9)	=SUM(C4:C9)	=SUM(D4:D9)		1994	38775.775	16976.515
11						1995	39652.505	17726.225
12	**Urban**	**=B3**	**=C3**	**=D3**		1996	42010.77	19162.5
13	Interstate	5745	8206	11008		1997	43490.845	19789.935
14	OFE	1177	3671	6807		2010	55959.245	=(((($G$14/$G$13)^(1/14))^($F14-$F13))*H13
15	OPA	7320	22288	26189				
16	Minor Arterial	9259	10686	15591				
17	Collector	4062	4840	8174				
18	Local	10151	8396	9149		**Program Year Est.**	**Year**	**See I18 on next page**
19	**Total Urban**	=SUM(B13:B18)	=SUM(C13:C18)	=SUM(D13:D18)			**Ann. VMT**	See I19 on next page
20								
21	**Percent of Travel by Vehicle Type**			=B3				
22	**Rural**					**SU**		
23		**MC**	**AUTO**	**LT**	**BUS**	**2A 6T**	**3A**	**4A**
24	INT	0.004	0.483	0.191	0.003	0.061	0.008	0
25	OPA	0.006	0.502	0.309	0.006	0.059	0.005	0
26	MA	0.008	0.532	0.336	0.007	0.06	0.013	0.001
27	MaC	0.009	0.525	0.365	0.008	0.046	0.009	0
28	MiC	0	0.363	0.348	0.007	0.165	0.068	0
29	LO	0	0.487	0.329	0.011	0.041	0.006	0
30	**Total Rural**	=($B$4*B$24+$B$5*B$25+$B$6*B$26+$B$7*B$27+$B$8*B$28+$B$9*B$29)/$B$10	=($B$4*C$24+$B$5*C$25+$B$6*C$26+$B$7*C$27+$B$8*C$28+$B$9*C$29)/$B$10	=($B$4*D$24+$B$5*D$25+$B$6*D$26+$B$7*D$27+$B$8*D$28+$B$9*D$29)/$B$10	=($B$4*E$24+$B$5*E$25+$B$6*E$26+$B$7*E$27+$B$8*E$28+$B$9*E$29)/$B$10	=($B$4*F$24+$B$5*F$25+$B$6*F$26+$B$7*F$27+$B$8*F$28+$B$9*F$29)/$B$10	=($B$4*G$24+$B$5*G$25+$B$6*G$26+$B$7*G$27+$B$8*G$28+$B$9*G$29)/$B$10	=($B$4*H$24+$B$5*H$25+$B$6*H$26+$B$7*H$27+$B$8*H$28+$B$9*H$29)/$B$10
31	**Urban**					**SU**		
32		**MC**	**AUTO**	**LT**	**BUS**	**2A 6T**	**3A**	**4A**
33	INT	0.006	0.565	0.238	0.005	0.057	0.008	0
34	OFE	0.015	0.694	0.242	0.005	0.027	0.006	0.002
35	OPA	0.01	0.62	0.295	0.003	0.04	0.005	0.002
36	MA	0.006	0.599	0.336	0.002	0.033	0.006	0
37	CO	0.005	0.543	0.334	0.003	0.038	0.023	0
38	LO	0	0.695	0.242	0.002	0.038	0.013	0
39	**Total Urban**	=($B$13*B$33+$B$14*B$34+$B$15*B$35+$B$16*B$36+$B$17*B$37+$B$18*B$38)/$B$19	=($B$13*C$33+$B$14*C$34+$B$15*C$35+$B$16*C$36+$B$17*C$37+$B$18*C$38)/$B$19	=($B$13*D$33+$B$14*D$34+$B$15*D$35+$B$16*D$36+$B$17*D$37+$B$18*D$38)/$B$19	=($B$13*E$33+$B$14*E$34+$B$15*E$35+$B$16*E$36+$B$17*E$37+$B$18*E$38)/$B$19	=($B$13*F$33+$B$14*F$34+$B$15*F$35+$B$16*F$36+$B$17*F$37+$B$18*F$38)/$B$19	=($B$13*G$33+$B$14*G$34+$B$15*G$35+$B$16*G$36+$B$17*G$37+$B$18*G$38)/$B$19	=($B$13*H$33+$B$14*H$34+$B$15*H$35+$B$16*H$36+$B$17*H$37+$B$18*H$38)/$B$19

HPMS IN

	I	J	K	L	M	N	O
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18	=MEDIAN('[SMHCAS.xls]EXP IN'!B2:B3)						
19	=IF(ISERROR(VLOOKUP(H18,F3:G14,2,FALSE)),((((G14/G13)^(1/(F14-F13)))^(H18-F13))*G13,VLOOKUP(H18,F3:G14,2,FALSE))						
20							
21							
22	**CMB Single Trailer**			**CMB Multi-trailer**			**Total**
23	**CS 4A**	**CS 5A**	**CS 6A**	**CM 5A**	**CM 6A**	**CM 7A**	
24	0.009	0.209	0.001	0.025	0.005	0.001	**=SUM(B24:N24)**
25	0.01	0.091	0.001	0.009	0.002	0	**=SUM(B25:N25)**
26	0.007	0.032	0	0.003	0.001	0	**=SUM(B26:N26)**
27	0.006	0.027	0.001	0.004	0	0	**=SUM(B27:N27)**
28	0.005	0.044	0	0	0	0	**=SUM(B28:N28)**
29	0.009	0.099	0.001	0.014	0.003	0	**=SUM(B29:N29)**
30	**=($B$4*I$24+$B$5*I$25+$B$6*I$26+$B$7*I$27+$B$8*I$28+$B$9*I$29)/$B$10**	**=($B$4*J$24+$B$5*J$25+$B$6*J$26+$B$7*J$27+$B$8*J$28+$B$9*J$29)/$B$10**	**=($B$4*K$24+$B$5*K$25+$B$6*K$26+$B$7*K$27+$B$8*K$28+$B$9*K$29)/$B$10**	**=($B$4*L$24+$B$5*L$25+$B$6*L$26+$B$7*L$27+$B$8*L$28+$B$9*L$29)/$B$10**	**=($B$4*M$24+$B$5*M$25+$B$6*M$26+$B$7*M$27+$B$8*M$28+$B$9*M$29)/$B$10**	**=($B$4*N$24+$B$5*N$25+$B$6*N$26+$B$7*N$27+$B$8*N$28+$B$9*N$29)/$B$10**	**=SUM(B30:N30)**
31	**CMB Single Trailer**			**CMB Multi-trailer**			**Total**
32	**CS 4A**	**CS 5A**	**CS 6A**	**CM 5A**	**CM 6A**	**CM 7A**	
33	0.006	0.103	0	0.011	0.001	0	**=SUM(B33:N33)**
34	0.002	0.005	0	0.002	0	0	**=SUM(B34:N34)**
35	0.004	0.016	0	0.005	0	0	**=SUM(B35:N35)**
36	0.004	0.011	0	0.002	0.001	0	**=SUM(B36:N36)**
37	0.008	0.044	0	0.002	0	0	**=SUM(B37:N37)**
38	0.002	0.007	0	0.001	0	0	**=SUM(B38:N38)**
39	**=($B$13*I$33+$B$14*I$34+$B$15*I$35+$B$16*I$36+$B$17*I$37+$B$18*I$38)/$B$19**	**=($B$13*J$33+$B$14*J$34+$B$15*J$35+$B$16*J$36+$B$17*J$37+$B$18*J$38)/$B$19**	**=($B$13*K$33+$B$14*K$34+$B$15*K$35+$B$16*K$36+$B$17*K$37+$B$18*K$38)/$B$19**	**=($B$13*L$33+$B$14*L$34+$B$15*L$35+$B$16*L$36+$B$17*L$37+$B$18*L$38)/$B$19**	**=($B$13*M$33+$B$14*M$34+$B$15*M$35+$B$16*M$36+$B$17*M$37+$B$18*M$38)/$B$19**	**=($B$13*N$33+$B$14*N$34+$B$15*N$35+$B$16*N$36+$B$17*N$37+$B$18*N$38)/$B$19**	**=SUM(B39:N39)**

HPMS IN

	A	B	C	D	E	F	G	H
40								
41	**Percent of Travel by Vehicle Type**			**=C3**				
42	**Rural**					**SU**		
43		**MC**	**AUTO**	**LT**	**BUS**	**2A 6T**	**3A**	**4A**
44	INT	0.003	0.546	0.221	0.003	0.051	0.005	
45	OPA	0.006	0.609	0.237	0.007	0.025	0.009	0.001
46	MA	0.008	0.621	0.289	0.009	0.024	0.008	0.001
47	MaC	0.013	0.654	0.262	0.005	0.013	0.011	
48	MiC	0.01	0.628	0.296	0.008	0.011	0.009	0.001
49	LO	0.006	0.61	0.321	0.001	0.007	0.006	
50	**Total Rural**	=($C$4*B$44+$C$5*B$45+$C$6*B$46+$C$7*B$47+$C$8*B$48+$C$9*B$49)/$C$10	=($C$4*C$44+$C$5*C$45+$C$6*C$46+$C$7*C$47+$C$8*C$48+$C$9*C$49)/$C$10	=($C$4*D$44+$C$5*D$45+$C$6*D$46+$C$7*D$47+$C$8*D$48+$C$9*D$49)/$C$10	=($C$4*E$44+$C$5*E$45+$C$6*E$46+$C$7*E$47+$C$8*E$48+$C$9*E$49)/$C$10	=($C$4*F$44+$C$5*F$45+$C$6*F$46+$C$7*F$47+$C$8*F$48+$C$9*F$49)/$C$10	=($C$4*G$44+$C$5*G$45+$C$6*G$46+$C$7*G$47+$C$8*G$48+$C$9*G$49)/$C$10	=($C$4*H$44+$C$5*H$45+$C$6*H$46+$C$7*H$47+$C$8*H$48+$C$9*H$49)/$C$10
51	**Urban**					**SU**		
52		**MC**	**AUTO**	**LT**	**BUS**	**2A 6T**	**3A**	**4A**
53	INT	0.006	0.582	0.276	0.004	0.039	0.01	0.001
54	OFE	0.015	0.69	0.264	0.003	0.023	0.001	0
55	OPA	0.007	0.606	0.308	0.009	0.032	0.008	0
56	MA	0.01	0.673	0.22	0.007	0.014	0.016	0.002
57	CO	0.015	0.699	0.211	0.006	0.01	0.008	0
58	LO	0.011	0.644	0.268	0.004	0.024	0.007	0.003
59	**Total Urban**	=($C$13*B$53+$C$14*B$54+$C$15*B$55+$C$16*B$56+$C$17*B$57+$C$18*B$58)/$C$19	=($C$13*C$53+$C$14*C$54+$C$15*C$55+$C$16*C$56+$C$17*C$57+$C$18*C$58)/$C$19	=($C$13*D$53+$C$14*D$54+$C$15*D$55+$C$16*D$56+$C$17*D$57+$C$18*D$58)/$C$19	=($C$13*E$53+$C$14*E$54+$C$15*E$55+$C$16*E$56+$C$17*E$57+$C$18*E$58)/$C$19	=($C$13*F$53+$C$14*F$54+$C$15*F$55+$C$16*F$56+$C$17*F$57+$C$18*F$58)/$C$19	=($C$13*G$53+$C$14*G$54+$C$15*G$55+$C$16*G$56+$C$17*G$57+$C$18*G$58)/$C$19	=($C$13*H$53+$C$14*H$54+$C$15*H$55+$C$16*H$56+$C$17*H$57+$C$18*H$58)/$C$19
60								
61	**Percent of Travel by Vehicle Type**			**=D3**				
62	**Rural**					**SU**		
63		**MC**	**AUTO**	**LT**	**BUS**	**2A 6T**	**3A**	**4A**
64	INT	0.003	0.477	0.182	0.003	0.051	0.007	0.002
65	OPA	0.009	0.58	0.252	0.011	0.022	0.018	0.005
66	MA	0.015	0.627	0.271	0.006	0.013	0.023	0.002
67	MaC	0.009	0.621	0.28	0.007	0.014	0.016	0.002
68	MiC	0.015	0.544	0.307	0.005	0.009	0.025	0.003
69	LO	0.003	0.503	0.339	0.003	0.055	0.005	0
70	**Total Rural**	=($D$4*B$64+$D$5*B$65+$D$6*B$66+$D$7*B$67+$D$8*B$68+$D$9*B$69)/$D$10	=($D$4*C$64+$D$5*C$65+$D$6*C$66+$D$7*C$67+$D$8*C$68+$D$9*C$69)/$D$10	=($D$4*D$64+$D$5*D$65+$D$6*D$66+$D$7*D$67+$D$8*D$68+$D$9*D$69)/$D$10	=($D$4*E$64+$D$5*E$65+$D$6*E$66+$D$7*E$67+$D$8*E$68+$D$9*E$69)/$D$10	=($D$4*F$64+$D$5*F$65+$D$6*F$66+$D$7*F$67+$D$8*F$68+$D$9*F$69)/$D$10	=($D$4*G$64+$D$5*G$65+$D$6*G$66+$D$7*G$67+$D$8*G$68+$D$9*G$69)/$D$10	=($D$4*H$64+$D$5*H$65+$D$6*H$66+$D$7*H$67+$D$8*H$68+$D$9*H$69)/$D$10
71	**Urban**					**SU**		
72		**MC**	**AUTO**	**LT**	**BUS**	**2A 6T**	**3A**	**4A**
73	INT	0.003	0.531	0.266	0.004	0.045	0.009	0.003
74	OFE	0.002	0.555	0.299	0.003	0.044	0.015	0.008
75	OPA	0.006	0.579	0.278	0.007	0.028	0.016	0.007
76	MA	0.006	0.591	0.28	0.005	0.035	0.015	0.005
77	CO	0.002	0.737	0.234	0.003	0.008	0.003	0
78	LO	0.007	0.652	0.279	0.003	0.029	0.005	0.002
79	Total Urban	=($D$13*B$73+$D$14*B$74+$D$15*B$75+$D$16*B$76+$D$17*B$77+$D$18*B$78)/$D$19	=($D$13*C$73+$D$14*C$74+$D$15*C$75+$D$16*C$76+$D$17*C$77+$D$18*C$78)/$D$19	=($D$13*D$73+$D$14*D$74+$D$15*D$75+$D$16*D$76+$D$17*D$77+$D$18*D$78)/$D$19	=($D$13*E$73+$D$14*E$74+$D$15*E$75+$D$16*E$76+$D$17*E$77+$D$18*E$78)/$D$19	=($D$13*F$73+$D$14*F$74+$D$15*F$75+$D$16*F$76+$D$17*F$77+$D$18*F$78)/$D$19	=($D$13*G$73+$D$14*G$74+$D$15*G$75+$D$16*G$76+$D$17*G$77+$D$18*G$78)/$D$19	=($D$13*H$73+$D$14*H$74+$D$15*H$75+$D$16*H$76+$D$17*H$77+$D$18*H$78)/$D$19

HPMS IN

	I	J	K	L	M	N	O
40							
41							
42	**CMB Single Trailer**			**CMB Multi-trailer**			**Total**
43	**CS 4A**	**CS 5A**	**CS 6A**	**CM 5A**	**CM 6A**	**CM 7A**	
44	0.006	0.146	0.001	0.016	0.001		**=SUM(B44:N44)**
45	0.021	0.067	0.004	0.008	0.002	0.002	**=SUM(B45:N45)**
46	0.013	0.023	0.001	0.003	0.001	0.001	**=SUM(B46:N46)**
47	0.014	0.022	0.002	0.003			**=SUM(B47:N47)**
48	0.014	0.012	0.009	0.001			**=SUM(B48:N48)**
49	0.002	0.042	0.003	0.002		0	**=SUM(B49:N49)**
50	=($C$4*I$44+$C$5*I$45+$C$6*I$46+$C$7*I$47+$C$8*I$48+$C$9*I$49)/$C$10	=($C$4*J$44+$C$5*J$45+$C$6*J$46+$C$7*J$47+$C$8*J$48+$C$9*J$49)/$C$10	=($C$4*K$44+$C$5*K$45+$C$6*K$46+$C$7*K$47+$C$8*K$48+$C$9*K$49)/$C$10	=($C$4*L$44+$C$5*L$45+$C$6*L$46+$C$7*L$47+$C$8*L$48+$C$9*L$49)/$C$10	=($C$4*M$44+$C$5*M$45+$C$6*M$46+$C$7*M$47+$C$8*M$48+$C$9*M$49)/$C$10	=($C$4*N$44+$C$5*N$45+$C$6*N$46+$C$7*N$47+$C$8*N$48+$C$9*N$49)/$C$10	**=SUM(B50:N50)**
51	**CMB Single Trailer**			**CMB Multi-trailer**			**Total**
52	**CS 4A**	**CS 5A**	**CS 6A**	**CM 5A**	**CM 6A**	**CM 7A**	
53	0.007	0.068	0.001	0.005	0.001	0	**=SUM(B53:N53)**
54	0.002	0.002	0	0	0	0	**=SUM(B54:N54)**
55	0.008	0.018	0.001	0.001	0	0.001	**=SUM(B55:N55)**
56	0.04	0.007	0.004	0.003	0.001	0.003	**=SUM(B56:N56)**
57	0.026	0.018	0.002	0.003	0.001	0.001	**=SUM(B57:N57)**
58	0	0.036	0	0.003	0	0	**=SUM(B58:N58)**
59	=($C$13*I$53+$C$14*I$54+$C$15*I$55+$C$16*I$56+$C$17*I$57+$C$18*I$58)/$C$19	=($C$13*J$53+$C$14*J$54+$C$15*J$55+$C$16*J$56+$C$17*J$57+$C$18*J$58)/$C$19	=($C$13*K$53+$C$14*K$54+$C$15*K$55+$C$16*K$56+$C$17*K$57+$C$18*K$58)/$C$19	=($C$13*L$53+$C$14*L$54+$C$15*L$55+$C$16*L$56+$C$17*L$57+$C$18*L$58)/$C$19	=($C$13*M$53+$C$14*M$54+$C$15*M$55+$C$16*M$56+$C$17*M$57+$C$18*M$58)/$C$19	=($C$13*N$53+$C$14*N$54+$C$15*N$55+$C$16*N$56+$C$17*N$57+$C$18*N$58)/$C$19	**=SUM(B59:N59)**
60							
61							
62	**CMB Single Trailer**			**CMB Multi-trailer**			**Total**
63	**CS 4A**	**CS 5A**	**CS 6A**	**CM 5A**	**CM 6A**	**CM 7A**	
64	0.042	0.203	0.006	0.019	0.004	0.001	**=SUM(B64:N64)**
65	0.036	0.053	0.003	0.006	0.001	0.004	**=SUM(B65:N65)**
66	0.013	0.024	0.002	0.002	0.001	0.001	**=SUM(B66:N66)**
67	0.016	0.027	0.002	0.004	0.001	0.001	**=SUM(B67:N67)**
68	0.008	0.074	0.002	0.005	0.001	0.002	**=SUM(B68:N68)**
69	0.003	0.082	0.001	0.006	0	0	**=SUM(B69:N69)**
70	=($D$4*I$64+$D$5*I$65+$D$6*I$66+$D$7*I$67+$D$8*I$68+$D$9*I$69)/$D$10	=($D$4*J$64+$D$5*J$65+$D$6*J$66+$D$7*J$67+$D$8*J$68+$D$9*J$69)/$D$10	=($D$4*K$64+$D$5*K$65+$D$6*K$66+$D$7*K$67+$D$8*K$68+$D$9*K$69)/$D$10	=($D$4*L$64+$D$5*L$65+$D$6*L$66+$D$7*L$67+$D$8*L$68+$D$9*L$69)/$D$10	=($D$4*M$64+$D$5*M$65+$D$6*M$66+$D$7*M$67+$D$8*M$68+$D$9*M$69)/$D$10	=($D$4*N$64+$D$5*N$65+$D$6*N$66+$D$7*N$67+$D$8*N$68+$D$9*N$69)/$D$10	**=SUM(B70:N70)**
71	**CMB Single Trailer**			**CMB Multi-trailer**			**Total**
72	**CS 4A**	**CS 5A**	**CS 6A**	**CM 5A**	**CM 6A**	**CM 7A**	
73	0.025	0.091	0.006	0.015	0.001	0.001	**=SUM(B73:N73)**
74	0.019	0.036	0.006	0.01	0.001	0.002	**=SUM(B74:N74)**
75	0.025	0.043	0.002	0.007	0.001	0.001	**=SUM(B75:N75)**
76	0.023	0.03	0.001	0.007	0.001	0.001	**=SUM(B76:N76)**
77	0.006	0.005	0	0.001	0.001	0	**=SUM(B77:N77)**
78	0	0.018	0.001	0.003	0.001	0	**=SUM(B78:N78)**
79	=($D$13*I$73+$D$14*I$74+$D$15*I$75+$D$16*I$76+$D$17*I$77+$D$18*I$78)/$D$19	=($D$13*J$73+$D$14*J$74+$D$15*J$75+$D$16*J$76+$D$17*J$77+$D$18*J$78)/$D$19	=($D$13*K$73+$D$14*K$74+$D$15*K$75+$D$16*K$76+$D$17*K$77+$D$18*K$78)/$D$19	=($D$13*L$73+$D$14*L$74+$D$15*L$75+$D$16*L$76+$D$17*L$77+$D$18*L$78)/$D$19	=($D$13*M$73+$D$14*M$74+$D$15*M$75+$D$16*M$76+$D$17*M$77+$D$18*M$78)/$D$19	=($D$13*N$73+$D$14*N$74+$D$15*N$75+$D$16*N$76+$D$17*N$77+$D$18*N$78)/$D$19	**=SUM(B79:N79)**

VLT ADJ

	A	B	C	D	E	F	G
1	**Historical VLT Collections**						
2	(Thousands of Dollars)						
3	**Vehicle Class**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**
4	Autos	232758.09077	247668.93601	n/a	305154.29336	349248.50864	347781.51332
5	Pick-ups	31636.79758	33026.39649	n/a	50447.28592	59113.57036	60379.36853
6	Buses	176.39929	187.016	n/a	143.11667	123.68472	102.71754
7	Commercial Trucks	46537.80783	48885.83539	n/a	55752.74634	62204.0269	58941.75972
8	Truck	*43913.24366*	*46499.83666*	*n/a*	*52679.11761*	*58371.9642*	*54940.90172*
9	Trailer	*2624.56417*	*2385.99873*	*n/a*	*3073.62873*	*3832.0627*	*4000.858*
10	Government	-1.29638	-0.50154	n/a	-0.43462	2.15096	-1.33458
11							
12	Total Collections	314930.90814	333757.86985	n/a	426044.97818	480330.9173	474496.66811
13							
14	**Adjusted Share of VLT**						
15	**Vehicle Class**	**=B3**	**=C3**	**=D3**	**=E3**	**=F3**	**=G3**
16	Autos	=B4/SUM(B$4:B$7,B$10)	=C4/SUM(C$4:C$7,C$10)	n/a	=E4/SUM(E$4:E$7,E$10)	=F4/SUM(F$4:F$7,F$10)	=G4/SUM(G$4:G$7,G$10)
17	Pick-ups	=B5/SUM(B$4:B$7,B$10)	=C5/SUM(C$4:C$7,C$10)	n/a	=E5/SUM(E$4:E$7,E$10)	=F5/SUM(F$4:F$7,F$10)	=G5/SUM(G$4:G$7,G$10)
18	Buses	=B6/SUM(B$4:B$7,B$10)	=C6/SUM(C$4:C$7,C$10)	n/a	=E6/SUM(E$4:E$7,E$10)	=F6/SUM(F$4:F$7,F$10)	=G6/SUM(G$4:G$7,G$10)
19	Commercial Trucks	=B7/SUM(B$4:B$7,B$10)	=C7/SUM(C$4:C$7,C$10)	n/a	=E7/SUM(E$4:E$7,E$10)	=F7/SUM(F$4:F$7,F$10)	=G7/SUM(G$4:G$7,G$10)
20	Truck	*=B8/SUM(B$4:B$7,B$10)*	*=C8/SUM(C$4:C$7,C$10)*	n/a	*=E8/SUM(E$4:E$7,E$10)*	*=F8/SUM(F$4:F$7,F$10)*	*=G8/SUM(G$4:G$7,G$10)*
21	Trailer	*=B9/SUM(B$4:B$7,B$10)*	*=C9/SUM(C$4:C$7,C$10)*	n/a	*=E9/SUM(E$4:E$7,E$10)*	*=F9/SUM(F$4:F$7,F$10)*	*=G9/SUM(G$4:G$7,G$10)*
22	Government	=B10/SUM(B$4:B$7,B$10)	=C10/SUM(C$4:C$7,C$10)	n/a	=E10/SUM(E$4:E$7,E$10)	=F10/SUM(F$4:F$7,F$10)	=G10/SUM(G$4:G$7,G$10)
23							
24	**Breakdown of Commercial Shares**						
25		**=B3**	**=C3**	**=D3**	**=E3**	**=F3**	**=G3**
26	Truck	=B8/B7	=C8/C7	n/a	=E8/E7	=F8/F7	=G8/G7
27	Trailer	=B9/B7	=C9/C7	n/a	=E9/E7	=F9/F7	=G9/G7
28							
29	**Projected Share of VLT Revenues by Vehicle Class**						
30	**Vehicle Class**	**Historical Average**	**Program Year Projection**	**Adjusted Share**			
31	Autos	=J16	=B31*(K16^('EXP IN'!$B$4/$H$3))	=C31/SUM($C$31:$C$34,$C $37)			
32	Pick-ups	=J17	=B32*(K17^('EXP IN'!$B$4/$H$3))	=C32/SUM($C$31:$C$34,$C $37)			
33	Buses	=J18	=B33*(K18^('EXP IN'!$B$4/$H$3))	=C33/SUM($C$31:$C$34,$C $37)			
34	Commercial Trucks	=J19	=B34*(K19^('EXP IN'!$B$4/$H$3))	=C34/SUM($C$31:$C$34,$C $37)			
35	Truck	*=J20*	*=B35*(K20^('EXP IN'!$B$4/$H$3))*	*=C35/SUM($C$31:$C$34,$C $37)*			
36	Trailer	*=J21*	*=B36*(K21^('EXP IN'!$B$4/$H$3))*	*=C36/SUM($C$31:$C$34,$C $37)*			
37	Government	=J22	=B37*(K22^('EXP IN'!$B$4/$H$3))	=C37/SUM($C$31:$C$34,$C $37)			
38	**Total**	=SUM(B31:B34,B37)	=SUM(C31:C34,C37)	=SUM(D31:D34,D37)			

VLT ADJ

	H	I	J	K
1				
2				
3	**1998**		**Average**	**Annualized Change**
4	456447.76485		=AVERAGE(B4:H4)	=(H4/B4)^(1/($H$3-$B$3))
5	78185.75694		=AVERAGE(B5:H5)	=(H5/B5)^(1/($H$3-$B$3))
6	205.0113		=AVERAGE(B6:H6)	=(H6/B6)^(1/($H$3-$B$3))
7	67998.01406		=AVERAGE(B7:H7)	=(H7/B7)^(1/($H$3-$B$3))
8	*63902.01353*		*=AVERAGE(B8:H8)*	*=(H8/B8)^(1/($H$3-$B$3))*
9	*4096.00053*		*=AVERAGE(B9:H9)*	*=(H9/B9)^(1/($H$3-$B$3))*
10	-0.90364		=AVERAGE(B10:H10)	=(H10/B10)^(1/($H$3-$B$3))
11				
12	610287.70954		=AVERAGE(B12:H12)	=(H12/B12)^(1/($H$3-$B$3))
13				
14				
15	**=H3**		**Average**	**Annualized Change**
16	=H4/SUM(H$4:H$7,H$10)		=AVERAGE(B16:H16)	=(H16/B16)^(1/($H$3-$B$3))
17	=H5/SUM(H$4:H$7,H$10)		=AVERAGE(B17:H17)	=(H17/B17)^(1/($H$3-$B$3))
18	=H6/SUM(H$4:H$7,H$10)		=AVERAGE(B18:H18)	=(H18/B18)^(1/($H$3-$B$3))
19	=H7/SUM(H$4:H$7,H$10)		=AVERAGE(B19:H19)	=(H19/B19)^(1/($H$3-$B$3))
20	*=H8/SUM(H$4:H$7,H$10)*		*=AVERAGE(B20:H20)*	*=(H20/B20)^(1/($H$3-$B$3))*
21	*=H9/SUM(H$4:H$7,H$10)*		*=AVERAGE(B21:H21)*	*=(H21/B21)^(1/($H$3-$B$3))*
22	=H10/SUM(H$4:H$7,H$10)		=AVERAGE(B22:H22)	=(H22/B22)^(1/($H$3-$B$3))
23				
24				
25	**=H3**		**Average**	**Annualized Change**
26	=H8/H7		=AVERAGE(B26:H26)	=(H26/B26)^(1/($H$3-$B$3))
27	=H9/H7		=AVERAGE(B27:H27)	=(H27/B27)^(1/($H$3-$B$3))
28				
29				
30				
31				
32				
33				
34				
35				
36				
37				
38				

FUEL ADJ

	A	B	C	D	E	F	G	H	I	J
1	**CLASS**	**WEIGHT**	**MPG**		**Vehicle Class**	**Proportion of Traffic**	**Traffic ADJ**	**MPG**	**MPG Adj**	**Alloc factor**
2	1	0-8	22.239		Autos	=VMT!R5	=F2/SUM($F$2:$F$3)	=C2	=G2/H2	=I2/SUM($I$2:$I$3)
3	1	8-10	20.450		Pickups	=VMT!R6	=F3/SUM($F$2:$F$3)	=C25	=G3/H3	=I3/SUM($I$2:$I$3)
4	1	10-12	19.094		Buses	=VMT!R7	=F4/SUM($F$4:$F$6)	=E85	=G4/H4	=I4/SUM($I$4:$I$6)
5	1	12-14	18.019		SU	=VMT!R8	=F5/SUM($F$4:$F$6)	=F85	=G5/H5	=I5/SUM($I$4:$I$6)
6	1	14-16	17.137		CMB	=VMT!R9	=F6/SUM($F$4:$F$6)	=G85	=G6/H6	=I6/SUM($I$4:$I$6)
7	1	16-18	16.395							
8	1	18-20	15.758		**Gas ADJ**					
9	1	20-22	15.203		**Weight**	**Proportion of Traffic**	**Traffic ADJ**	**MPG**	**MPG Adj**	**Alloc factor**
10	1	22-24	14.713		0-8	=SUM('TRAF WGT'!B32:C32)	=F10/SUM($F$10:$F$32)	=($G$2*$H$2)+($G$3*$H$3)	=G10/H10	=I10/SUM($I$10:$I$32)
11	1	24-26	14.277		8-10	=SUM('TRAF WGT'!B33:C33)	=F11/SUM($F$10:$F$32)	=($G$2*$H$2)+($G$3*$H$3)	=G11/H11	=I11/SUM($I$10:$I$32)
12	1	26-28	13.884		10-12	=SUM('TRAF WGT'!B34:C34)	=F12/SUM($F$10:$F$32)	=($G$2*$H$2)+($G$3*$H$3)	=G12/H12	=I12/SUM($I$10:$I$32)
13	1	28-30	13.529		12-14	=SUM('TRAF WGT'!B35:C35)	=F13/SUM($F$10:$F$32)	=($G$2*$H$2)+($G$3*$H$3)	=G13/H13	=I13/SUM($I$10:$I$32)
14	1	30-32	13.206		14-16	=SUM('TRAF WGT'!B36:C36)	=F14/SUM($F$10:$F$32)	=($G$2*$H$2)+($G$3*$H$3)	=G14/H14	=I14/SUM($I$10:$I$32)
15	1	32-36	12.633		16-18	=SUM('TRAF WGT'!B37:C37)	=F15/SUM($F$10:$F$32)	=($G$2*$H$2)+($G$3*$H$3)	=G15/H15	=I15/SUM($I$10:$I$32)
16	1	36-40	12.143		18-20	=SUM('TRAF WGT'!B38:C38)	=F16/SUM($F$10:$F$32)	=($G$2*$H$2)+($G$3*$H$3)	=G16/H16	=I16/SUM($I$10:$I$32)
17	1	40-45	11.616		20-22	=SUM('TRAF WGT'!B39:C39)	=F17/SUM($F$10:$F$32)	=($G$2*$H$2)+($G$3*$H$3)	=G17/H17	=I17/SUM($I$10:$I$32)
18	1	45-50	11.165		22-24	=SUM('TRAF WGT'!B40:C40)	=F18/SUM($F$10:$F$32)	=($G$2*$H$2)+($G$3*$H$3)	=G18/H18	=I18/SUM($I$10:$I$32)
19	1	50-55	10.771		24-26	=SUM('TRAF WGT'!B41:C41)	=F19/SUM($F$10:$F$32)	=($G$2*$H$2)+($G$3*$H$3)	=G19/H19	=I19/SUM($I$10:$I$32)
20	1	55-60	10.425		26-28	=SUM('TRAF WGT'!B42:C42)	=F20/SUM($F$10:$F$32)	=($G$2*$H$2)+($G$3*$H$3)	=G20/H20	=I20/SUM($I$10:$I$32)
21	1	60-65	10.117		28-30	=SUM('TRAF WGT'!B43:C43)	=F21/SUM($F$10:$F$32)	=($G$2*$H$2)+($G$3*$H$3)	=G21/H21	=I21/SUM($I$10:$I$32)
22	1	65-70	9.838		30-32	=SUM('TRAF WGT'!B44:C44)	=F22/SUM($F$10:$F$32)	=($G$2*$H$2)+($G$3*$H$3)	=G22/H22	=I22/SUM($I$10:$I$32)
23	1	70-75	9.587		32-36	=SUM('TRAF WGT'!B45:C45)	=F23/SUM($F$10:$F$32)	=($G$2*$H$2)+($G$3*$H$3)	=G23/H23	=I23/SUM($I$10:$I$32)
24	1	75-80	9.357		36-40	=SUM('TRAF WGT'!B46:C46)	=F24/SUM($F$10:$F$32)	=($G$2*$H$2)+($G$3*$H$3)	=G24/H24	=I24/SUM($I$10:$I$32)
25	2	0-8	15.055		40-45	=SUM('TRAF WGT'!B47:C47)	=F25/SUM($F$10:$F$32)	=($G$2*$H$2)+($G$3*$H$3)	=G25/H25	=I25/SUM($I$10:$I$32)
26	2	8-10	13.844		45-50	=SUM('TRAF WGT'!B48:C48)	=F26/SUM($F$10:$F$32)	=($G$2*$H$2)+($G$3*$H$3)	=G26/H26	=I26/SUM($I$10:$I$32)
27	2	10-12	12.926		50-55	=SUM('TRAF WGT'!B49:C49)	=F27/SUM($F$10:$F$32)	=($G$2*$H$2)+($G$3*$H$3)	=G27/H27	=I27/SUM($I$10:$I$32)
28	2	12-14	12.198		55-60	=SUM('TRAF WGT'!B50:C50)	=F28/SUM($F$10:$F$32)	=($G$2*$H$2)+($G$3*$H$3)	=G28/H28	=I28/SUM($I$10:$I$32)
29	2	14-16	11.601		60-65	=SUM('TRAF WGT'!B51:C51)	=F29/SUM($F$10:$F$32)	=($G$2*$H$2)+($G$3*$H$3)	=G29/H29	=I29/SUM($I$10:$I$32)
30	2	16-18	11.099		65-70	=SUM('TRAF WGT'!B52:C52)	=F30/SUM($F$10:$F$32)	=($G$2*$H$2)+($G$3*$H$3)	=G30/H30	=I30/SUM($I$10:$I$32)
31	2	18-20	10.668		70-75	=SUM('TRAF WGT'!B53:C53)	=F31/SUM($F$10:$F$32)	=($G$2*$H$2)+($G$3*$H$3)	=G31/H31	=I31/SUM($I$10:$I$32)
32	2	20-22	10.292		75-80	=SUM('TRAF WGT'!B54:C54)	=F32/SUM($F$10:$F$32)	=($G$2*$H$2)+($G$3*$H$3)	=G32/H32	=I32/SUM($I$10:$I$32)
33	2	22-24	9.960							
34	2	24-26	9.665		**Diesel ADJ**					

FUEL ADJ

	A	B	C	D	E	F	G	H	I	J
35	2	26-28	9.399		**DIESEL**	**Prop. of Traffic**	**Traffic ADJ**	**MPG**	**MPG Adj**	**Alloc factor**
36	2	28-30	9.159		0-8	=SUM('TRAF WGT'!D32:M32)	=F36/SUM($F$36:$F$58)	=(('TRAF WGT'!D32/'TRAF WGT'!U32)*'FUEL ADJ'!C48)+(SUM('TRAF WGT'!E32:G32)/'TRAF WGT'!U32*'FUEL ADJ'!C71)+(SUM('TRAF WGT'!H32:M32)/'TRAF WGT'!U32*'FUEL ADJ'!C94)	=G36/H36	=I36/SUM($I$36:$I$58)
37	2	30-32	8.940		8-10	=SUM('TRAF WGT'!D33:M33)	=F37/SUM($F$36:$F$58)	=(('TRAF WGT'!D33/'TRAF WGT'!U33)*'FUEL ADJ'!C49)+(SUM('TRAF WGT'!E33:G33)/'TRAF WGT'!U33*'FUEL ADJ'!C72)+(SUM('TRAF WGT'!H33:M33)/'TRAF WGT'!U33*'FUEL ADJ'!C95)	=G37/H37	=I37/SUM($I$36:$I$58)
38	2	32-36	8.552		10-12	=SUM('TRAF WGT'!D34:M34)	=F38/SUM($F$36:$F$58)	=(('TRAF WGT'!D34/'TRAF WGT'!U34)*'FUEL ADJ'!C50)+(SUM('TRAF WGT'!E34:G34)/'TRAF WGT'!U34*'FUEL ADJ'!C73)+(SUM('TRAF WGT'!H34:M34)/'TRAF WGT'!U34*'FUEL ADJ'!C96)	=G38/H38	=I38/SUM($I$36:$I$58)
39	2	36-40	8.220		12-14	=SUM('TRAF WGT'!D35:M35)	=F39/SUM($F$36:$F$58)	=(('TRAF WGT'!D35/'TRAF WGT'!U35)*'FUEL ADJ'!C51)+(SUM('TRAF WGT'!E35:G35)/'TRAF WGT'!U35*'FUEL ADJ'!C74)+(SUM('TRAF WGT'!H35:M35)/'TRAF WGT'!U35*'FUEL ADJ'!C97)	=G39/H39	=I39/SUM($I$36:$I$58)
40	2	40-45	7.864		14-16	=SUM('TRAF WGT'!D36:M36)	=F40/SUM($F$36:$F$58)	=(('TRAF WGT'!D36/'TRAF WGT'!U36)*'FUEL ADJ'!C52)+(SUM('TRAF WGT'!E36:G36)/'TRAF WGT'!U36*'FUEL ADJ'!C75)+(SUM('TRAF WGT'!H36:M36)/'TRAF WGT'!U36*'FUEL ADJ'!C98)	=G40/H40	=I40/SUM($I$36:$I$58)
41	2	45-50	7.559		16-18	=SUM('TRAF WGT'!D37:M37)	=F41/SUM($F$36:$F$58)	=(('TRAF WGT'!D37/'TRAF WGT'!U37)*'FUEL ADJ'!C53)+(SUM('TRAF WGT'!E37:G37)/'TRAF WGT'!U37*'FUEL ADJ'!C76)+(SUM('TRAF WGT'!H37:M37)/'TRAF WGT'!U37*'FUEL ADJ'!C99)	=G41/H41	=I41/SUM($I$36:$I$58)
42	2	50-55	7.292		18-20	=SUM('TRAF WGT'!D38:M38)	=F42/SUM($F$36:$F$58)	=(('TRAF WGT'!D38/'TRAF WGT'!U38)*'FUEL ADJ'!C54)+(SUM('TRAF WGT'!E38:G38)/'TRAF WGT'!U38*'FUEL ADJ'!C77)+(SUM('TRAF WGT'!H38:M38)/'TRAF WGT'!U38*'FUEL ADJ'!C100)	=G42/H42	=I42/SUM($I$36:$I$58)
43	2	55-60	7.057		20-22	=SUM('TRAF WGT'!D39:M39)	=F43/SUM($F$36:$F$58)	=(('TRAF WGT'!D39/'TRAF WGT'!U39)*'FUEL ADJ'!C55)+(SUM('TRAF WGT'!E39:G39)/'TRAF WGT'!U39*'FUEL ADJ'!C78)+(SUM('TRAF WGT'!H39:M39)/'TRAF WGT'!U39*'FUEL ADJ'!C101)	=G43/H43	=I43/SUM($I$36:$I$58)
44	2	60-65	6.849		22-24	=SUM('TRAF WGT'!D40:M40)	=F44/SUM($F$36:$F$58)	=(('TRAF WGT'!D40/'TRAF WGT'!U40)*'FUEL ADJ'!C56)+(SUM('TRAF WGT'!E40:G40)/'TRAF WGT'!U40*'FUEL ADJ'!C79)+(SUM('TRAF WGT'!H40:M40)/'TRAF WGT'!U40*'FUEL ADJ'!C102)	=G44/H44	=I44/SUM($I$36:$I$58)
45	2	65-70	6.660		24-26	=SUM('TRAF WGT'!D41:M41)	=F45/SUM($F$36:$F$58)	=(('TRAF WGT'!D41/'TRAF WGT'!U41)*'FUEL ADJ'!C57)+(SUM('TRAF WGT'!E41:G41)/'TRAF WGT'!U41*'FUEL ADJ'!C80)+(SUM('TRAF WGT'!H41:M41)/'TRAF WGT'!U41*'FUEL ADJ'!C103)	=G45/H45	=I45/SUM($I$36:$I$58)
46	2	70-75	6.490		26-28	=SUM('TRAF WGT'!D42:M42)	=F46/SUM($F$36:$F$58)	=(('TRAF WGT'!D42/'TRAF WGT'!U42)*'FUEL ADJ'!C58)+(SUM('TRAF WGT'!E42:G42)/'TRAF WGT'!U42*'FUEL ADJ'!C81)+(SUM('TRAF WGT'!H42:M42)/'TRAF WGT'!U42*'FUEL ADJ'!C104)	=G46/H46	=I46/SUM($I$36:$I$58)
47	2	75-80	6.334		28-30	=SUM('TRAF WGT'!D43:M43)	=F47/SUM($F$36:$F$58)	=(('TRAF WGT'!D43/'TRAF WGT'!U43)*'FUEL ADJ'!C59)+(SUM('TRAF WGT'!E43:G43)/'TRAF WGT'!U43*'FUEL ADJ'!C82)+(SUM('TRAF WGT'!H43:M43)/'TRAF WGT'!U43*'FUEL ADJ'!C105)	=G47/H47	=I47/SUM($I$36:$I$58)
48	3	0-8	12.58		30-32	=SUM('TRAF WGT'!D44:M44)	=F48/SUM($F$36:$F$58)	=(('TRAF WGT'!D44/'TRAF WGT'!U44)*'FUEL ADJ'!C60)+(SUM('TRAF WGT'!E44:G44)/'TRAF WGT'!U44*'FUEL ADJ'!C83)+(SUM('TRAF WGT'!H44:M44)/'TRAF WGT'!U44*'FUEL ADJ'!C106)	=G48/H48	=I48/SUM($I$36:$I$58)
49	3	8-10	11.568		32-36	=SUM('TRAF WGT'!D45:M45)	=F49/SUM($F$36:$F$58)	=(('TRAF WGT'!D45/'TRAF WGT'!U45)*'FUEL ADJ'!C61)+(SUM('TRAF WGT'!E45:G45)/'TRAF WGT'!U45*'FUEL ADJ'!C84)+(SUM('TRAF WGT'!H45:M45)/'TRAF WGT'!U45*'FUEL ADJ'!C107)	=G49/H49	=I49/SUM($I$36:$I$58)
50	3	10-12	10.801		36-40	=SUM('TRAF WGT'!D46:M46)	=F50/SUM($F$36:$F$58)	=(('TRAF WGT'!D46/'TRAF WGT'!U46)*'FUEL ADJ'!C62)+(SUM('TRAF WGT'!E46:G46)/'TRAF WGT'!U46*'FUEL ADJ'!C85)+(SUM('TRAF WGT'!H46:M46)/'TRAF WGT'!U46*'FUEL ADJ'!C108)	=G50/H50	=I50/SUM($I$36:$I$58)
51	3	12-14	10.193		40-45	=SUM('TRAF WGT'!D47:M47)	=F51/SUM($F$36:$F$58)	=(('TRAF WGT'!D47/'TRAF WGT'!U47)*'FUEL ADJ'!C63)+(SUM('TRAF WGT'!E47:G47)/'TRAF WGT'!U47*'FUEL ADJ'!C86)+(SUM('TRAF WGT'!H47:M47)/'TRAF WGT'!U47*'FUEL ADJ'!C109)	=G51/H51	=I51/SUM($I$36:$I$58)
52	3	14-16	9.694		45-50	=SUM('TRAF WGT'!D48:M48)	=F52/SUM($F$36:$F$58)	=(('TRAF WGT'!D48/'TRAF WGT'!U48)*'FUEL ADJ'!C64)+(SUM('TRAF WGT'!E48:G48)/'TRAF WGT'!U48*'FUEL ADJ'!C87)+(SUM('TRAF WGT'!H48:M48)/'TRAF WGT'!U48*'FUEL ADJ'!C110)	=G52/H52	=I52/SUM($I$36:$I$58)
53	3	16-18	9.274		50-55	=SUM('TRAF WGT'!D49:M49)	=F53/SUM($F$36:$F$58)	=(('TRAF WGT'!D49/'TRAF WGT'!U49)*'FUEL ADJ'!C65)+(SUM('TRAF WGT'!E49:G49)/'TRAF WGT'!U49*'FUEL ADJ'!C88)+(SUM('TRAF WGT'!H49:M49)/'TRAF WGT'!U49*'FUEL ADJ'!C111)	=G53/H53	=I53/SUM($I$36:$I$58)
54	3	18-20	8.914		55-60	=SUM('TRAF WGT'!D50:M50)	=F54/SUM($F$36:$F$58)	=(('TRAF WGT'!D50/'TRAF WGT'!U50)*'FUEL ADJ'!C66)+(SUM('TRAF WGT'!E50:G50)/'TRAF WGT'!U50*'FUEL ADJ'!C89)+(SUM('TRAF WGT'!H50:M50)/'TRAF WGT'!U50*'FUEL ADJ'!C112)	=G54/H54	=I54/SUM($I$36:$I$58)
55	3	20-22	8.6		60-65	=SUM('TRAF WGT'!D51:M51)	=F55/SUM($F$36:$F$58)	=(('TRAF WGT'!D51/'TRAF WGT'!U51)*'FUEL ADJ'!C67)+(SUM('TRAF WGT'!E51:G51)/'TRAF WGT'!U51*'FUEL ADJ'!C90)+(SUM('TRAF WGT'!H51:M51)/'TRAF WGT'!U51*'FUEL ADJ'!C113)	=G55/H55	=I55/SUM($I$36:$I$58)
56	3	22-24	8.323		65-70	=SUM('TRAF WGT'!D52:M52)	=F56/SUM($F$36:$F$58)	=(('TRAF WGT'!D52/'TRAF WGT'!U52)*'FUEL ADJ'!C68)+(SUM('TRAF WGT'!E52:G52)/'TRAF WGT'!U52*'FUEL ADJ'!C91)+(SUM('TRAF WGT'!H52:M52)/'TRAF WGT'!U52*'FUEL ADJ'!C114)	=G56/H56	=I56/SUM($I$36:$I$58)
57	3	24-26	8.076		70-75	=SUM('TRAF WGT'!D53:M53)	=F57/SUM($F$36:$F$58)	=(('TRAF WGT'!D53/'TRAF WGT'!U53)*'FUEL ADJ'!C69)+(SUM('TRAF WGT'!E53:G53)/'TRAF WGT'!U53*'FUEL ADJ'!C92)+(SUM('TRAF WGT'!H53:M53)/'TRAF WGT'!U53*'FUEL ADJ'!C115)	=G57/H57	=I57/SUM($I$36:$I$58)
58	3	26-28	7.854		75-80	=SUM('TRAF WGT'!D54:M54)	=F58/SUM($F$36:$F$58)	=(('TRAF WGT'!D54/'TRAF WGT'!U54)*'FUEL ADJ'!C70)+(SUM('TRAF WGT'!E54:G54)/'TRAF WGT'!U54*'FUEL ADJ'!C93)+(SUM('TRAF WGT'!H54:M54)/'TRAF WGT'!U54*'FUEL ADJ'!C116)	=G58/H58	=I58/SUM($I$36:$I$58)
59	3	28-30	7.653							

FUEL ADJ

	A	B	C	D	E	F	G	H	I	J
60	3	30-32	7.47		**Traffic-Weighted Fuel Efficiencies**					
61	3	32-36	7.146		**BUS**	**SU**	**CMB**			
62	3	36-40	6.869		=C48*('TRAF WGT'!D32/'TRAF WGT'!$D$55)	=C71*(SUM('TRAF WGT'!E32:G32)/SUM('TRAF WGT'!$E$55:$G$55))	=C94*(SUM('TRAF WGT'!H32:M32)/SUM('TRAF WGT'!$H$55:$M$55))			
63	3	40-45	6.571		=C49*('TRAF WGT'!D33/'TRAF WGT'!$D$55)	=C72*(SUM('TRAF WGT'!E33:G33)/SUM('TRAF WGT'!$E$55:$G$55))	=C95*(SUM('TRAF WGT'!H33:M33)/SUM('TRAF WGT'!$H$55:$M$55))			
64	3	45-50	6.316		=C50*('TRAF WGT'!D34/'TRAF WGT'!$D$55)	=C73*(SUM('TRAF WGT'!E34:G34)/SUM('TRAF WGT'!$E$55:$G$55))	=C96*(SUM('TRAF WGT'!H34:M34)/SUM('TRAF WGT'!$H$55:$M$55))			
65	3	50-55	6.093		=C51*('TRAF WGT'!D35/'TRAF WGT'!$D$55)	=C74*(SUM('TRAF WGT'!E35:G35)/SUM('TRAF WGT'!$E$55:$G$55))	=C97*(SUM('TRAF WGT'!H35:M35)/SUM('TRAF WGT'!$H$55:$M$55))			
66	3	55-60	5.897		=C52*('TRAF WGT'!D36/'TRAF WGT'!$D$55)	=C75*(SUM('TRAF WGT'!E36:G36)/SUM('TRAF WGT'!$E$55:$G$55))	=C98*(SUM('TRAF WGT'!H36:M36)/SUM('TRAF WGT'!$H$55:$M$55))			
67	3	60-65	5.723		=C53*('TRAF WGT'!D37/'TRAF WGT'!$D$55)	=C76*(SUM('TRAF WGT'!E37:G37)/SUM('TRAF WGT'!$E$55:$G$55))	=C99*(SUM('TRAF WGT'!H37:M37)/SUM('TRAF WGT'!$H$55:$M$55))			
68	3	65-70	5.565		=C54*('TRAF WGT'!D38/'TRAF WGT'!$D$55)	=C77*(SUM('TRAF WGT'!E38:G38)/SUM('TRAF WGT'!$E$55:$G$55))	=C100*(SUM('TRAF WGT'!H38:M38)/SUM('TRAF WGT'!$H$55:$M$55))			
69	3	70-75	5.423		=C55*('TRAF WGT'!D39/'TRAF WGT'!$D$55)	=C78*(SUM('TRAF WGT'!E39:G39)/SUM('TRAF WGT'!$E$55:$G$55))	=C101*(SUM('TRAF WGT'!H39:M39)/SUM('TRAF WGT'!$H$55:$M$55))			
70	3	75-80	5.293		=C56*('TRAF WGT'!D40/'TRAF WGT'!$D$55)	=C79*(SUM('TRAF WGT'!E40:G40)/SUM('TRAF WGT'!$E$55:$G$55))	=C102*(SUM('TRAF WGT'!H40:M40)/SUM('TRAF WGT'!$H$55:$M$55))			
71	4	0-8	12.58		=C57*('TRAF WGT'!D41/'TRAF WGT'!$D$55)	=C80*(SUM('TRAF WGT'!E41:G41)/SUM('TRAF WGT'!$E$55:$G$55))	=C103*(SUM('TRAF WGT'!H41:M41)/SUM('TRAF WGT'!$H$55:$M$55))			
72	4	8-10	11.568		=C58*('TRAF WGT'!D42/'TRAF WGT'!$D$55)	=C81*(SUM('TRAF WGT'!E42:G42)/SUM('TRAF WGT'!$E$55:$G$55))	=C104*(SUM('TRAF WGT'!H42:M42)/SUM('TRAF WGT'!$H$55:$M$55))			
73	4	10-12	10.801		=C59*('TRAF WGT'!D43/'TRAF WGT'!$D$55)	=C82*(SUM('TRAF WGT'!E43:G43)/SUM('TRAF WGT'!$E$55:$G$55))	=C105*(SUM('TRAF WGT'!H43:M43)/SUM('TRAF WGT'!$H$55:$M$55))			
74	4	12-14	10.193		=C60*('TRAF WGT'!D44/'TRAF WGT'!$D$55)	=C83*(SUM('TRAF WGT'!E44:G44)/SUM('TRAF WGT'!$E$55:$G$55))	=C106*(SUM('TRAF WGT'!H44:M44)/SUM('TRAF WGT'!$H$55:$M$55))			
75	4	14-16	9.694		=C61*('TRAF WGT'!D45/'TRAF WGT'!$D$55)	=C84*(SUM('TRAF WGT'!E45:G45)/SUM('TRAF WGT'!$E$55:$G$55))	=C107*(SUM('TRAF WGT'!H45:M45)/SUM('TRAF WGT'!$H$55:$M$55))			
76	4	16-18	9.274		=C62*('TRAF WGT'!D46/'TRAF WGT'!$D$55)	=C85*(SUM('TRAF WGT'!E46:G46)/SUM('TRAF WGT'!$E$55:$G$55))	=C108*(SUM('TRAF WGT'!H46:M46)/SUM('TRAF WGT'!$H$55:$M$55))			
77	4	18-20	8.914		=C63*('TRAF WGT'!D47/'TRAF WGT'!$D$55)	=C86*(SUM('TRAF WGT'!E47:G47)/SUM('TRAF WGT'!$E$55:$G$55))	=C109*(SUM('TRAF WGT'!H47:M47)/SUM('TRAF WGT'!$H$55:$M$55))			
78	4	20-22	8.6		=C64*('TRAF WGT'!D48/'TRAF WGT'!$D$55)	=C87*(SUM('TRAF WGT'!E48:G48)/SUM('TRAF WGT'!$E$55:$G$55))	=C110*(SUM('TRAF WGT'!H48:M48)/SUM('TRAF WGT'!$H$55:$M$55))			
79	4	22-24	8.323		=C65*('TRAF WGT'!D49/'TRAF WGT'!$D$55)	=C88*(SUM('TRAF WGT'!E49:G49)/SUM('TRAF WGT'!$E$55:$G$55))	=C111*(SUM('TRAF WGT'!H49:M49)/SUM('TRAF WGT'!$H$55:$M$55))			
80	4	24-26	8.076		=C66*('TRAF WGT'!D50/'TRAF WGT'!$D$55)	=C89*(SUM('TRAF WGT'!E50:G50)/SUM('TRAF WGT'!$E$55:$G$55))	=C112*(SUM('TRAF WGT'!H50:M50)/SUM('TRAF WGT'!$H$55:$M$55))			
81	4	26-28	7.854		=C67*('TRAF WGT'!D51/'TRAF WGT'!$D$55)	=C90*(SUM('TRAF WGT'!E51:G51)/SUM('TRAF WGT'!$E$55:$G$55))	=C113*(SUM('TRAF WGT'!H51:M51)/SUM('TRAF WGT'!$H$55:$M$55))			
82	4	28-30	7.653		=C68*('TRAF WGT'!D52/'TRAF WGT'!$D$55)	=C91*(SUM('TRAF WGT'!E52:G52)/SUM('TRAF WGT'!$E$55:$G$55))	=C114*(SUM('TRAF WGT'!H52:M52)/SUM('TRAF WGT'!$H$55:$M$55))			
83	4	30-32	7.47		=C69*('TRAF WGT'!D53/'TRAF WGT'!$D$55)	=C92*(SUM('TRAF WGT'!E53:G53)/SUM('TRAF WGT'!$E$55:$G$55))	=C115*(SUM('TRAF WGT'!H53:M53)/SUM('TRAF WGT'!$H$55:$M$55))			
84	4	32-36	7.146		=C70*('TRAF WGT'!D54/'TRAF WGT'!$D$55)	=C93*(SUM('TRAF WGT'!E54:G54)/SUM('TRAF WGT'!$E$55:$G$55))	=C116*(SUM('TRAF WGT'!H54:M54)/SUM('TRAF WGT'!$H$55:$M$55))			
85	4	36-40	6.869		**=SUM(E62:E84)**	**=SUM(F62:F84)**	**=SUM(G62:G84)**			

FEE SPLIT

	A	B	C	D	E	F	G	H	I	J
1	**Registration Fee Breakdown, 1999**				**Forecast**	**ADJ Forecast**				
2	**Fees**		**1999 Est.**	**Prop.**						
3	Motor Carrier Fee		38300000	n/a	n/a	n/a				
4	Reg. & Weight		57100000	=C4/SUM($C$4,$C$7:$C$8)	=D4	=E4				
5	Registration			*=G17*D4*	*=(I17*(J17^('EXP IN'!$B$4-$G$11)))*E4*	*=E5*(E$4/SUM($E$5:$E$6))*				
6	Weight			*=G18*D4*	*=(I18*(J18^('EXP IN'!$B$4-$G$11)))*E4*	*=E6*(E$4/SUM($E$5:$E$6))*				
7	Apportioned		65000000	=C7/SUM($C$4:$C$8)	=D7	=E7				
8	Reg. Permit and Penalties		10700000	=C8/SUM($C$4:$C$8)	=D8	=E8				
9										
10	**Split of Registration and Weight Fees**									
11	**Fees**	**1992**	**1993**	**1995**	**1996**	**1997**	**1998**		**Average**	**Annual Change**
12	REG Fees	28180225.33	28706239.13	31828474.56	34146482.01	31003945.2	33295305.67		=AVERAGE(B12:G12)	=(G12/B12)^(1/($G$11-$B$11))
13	WGT Fees	15005528.65	15384873.04	16674122.89	18255896.94	21314280.2	22856374.01		=AVERAGE(B13:G13)	=(G13/B13)^(1/($G$11-$B$11))
14	**Total**	**=SUM(B12:B13)**	**=SUM(C12:C13)**	**=SUM(D12:D13)**	**=SUM(E12:E13)**	**=SUM(F12:F13)**	**=SUM(G12:G13)**		**=AVERAGE(B14:G14)**	**=(G14/B14)^(1/($G$11-$B$11))**
15										
16	**% of Total**	**=B11**	**=C11**	**=D11**	**=E11**	**=F11**	**=G11**		**Average**	**Annual Change**
17	REG	=B12/B14	=C12/C14	=D12/D14	=E12/E14	=F12/F14	=G12/G14		=AVERAGE(B17:G17)	=(G17/B17)^(1/($G$11-$B$11))
18	WGT	=B13/B14	=C13/C14	=D13/D14	=E13/E14	=F13/F14	=G13/G14		=AVERAGE(B18:G18)	=(G18/B18)^(1/($G$11-$B$11))
19										
20	**Other Fees Breakdown, 1999**									
21	**Fees**		**1999 Est.**	**Prop.**						
22	Title fees		5600000	=C22/SUM($C$22:$C$29)						
23	Operator License		14100000	=C23/SUM($C$22:$C$29)						
24	Oversize Permits and Penalties		3200000	=C24/SUM($C$22:$C$29)						
25	Inquiry Fees		6700000	=C25/SUM($C$22:$C$29)						
26	Use Fuel Permits and Penalties		1200000	=C26/SUM($C$22:$C$29)						
27	Investment Interest		2000000	=C27/SUM($C$22:$C$29)						
28	Special Plates		3400000	=C28/SUM($C$22:$C$29)						
29	Misc. Fees		2300000	=C29/SUM($C$22:$C$29)						
30	**Other Fees, Common**		**=SUM(C22:C23,C25,C27:C29)**	**=SUM(D22:D23,D25,D27:D29)**						
31	**Other Fees, Truck**		**=SUM(C24,C26)**	**=SUM(D24,D26)**						

FEE ADJ

	A	B	C	D	E	F	G	H	I	J	K
1	RGW	REG	WGT	MC		REG Fee Adj	AU ADJ	PU ADJ	BUS ADJ	SU ADJ	CMB ADJ
2	0-8	8	0	50		=B2/SUM($B$2:$B$24)	=$F2*REG!V3	=$F2*REG!W3	=$F2*REG!X3	=$F2*REG!Y3	=$F2*REG!Z3
3	8-10	12	36	60		=B3/SUM($B$2:$B$24)	=$F3*REG!V4	=$F3*REG!W4	=$F3*REG!X4	=$F3*REG!Y4	=$F3*REG!Z4
4	10-12	12	63	70		=B4/SUM($B$2:$B$24)	=$F4*REG!V5	=$F4*REG!W5	=$F4*REG!X5	=$F4*REG!Y5	=$F4*REG!Z5
5	12-14	12	103	80		=B5/SUM($B$2:$B$24)	=$F5*REG!V6	=$F5*REG!W6	=$F5*REG!X6	=$F5*REG!Y6	=$F5*REG!Z6
6	14-16	12	121	90		=B6/SUM($B$2:$B$24)	=$F6*REG!V7	=$F6*REG!W7	=$F6*REG!X7	=$F6*REG!Y7	=$F6*REG!Z7
7	16-18	12	144	105		=B7/SUM($B$2:$B$24)	=$F7*REG!V8	=$F7*REG!W8	=$F7*REG!X8	=$F7*REG!Y8	=$F7*REG!Z8
8	18-20	12	162	115		=B8/SUM($B$2:$B$24)	=$F8*REG!V9	=$F8*REG!W9	=$F8*REG!X9	=$F8*REG!Y9	=$F8*REG!Z9
9	20-22	12	198	125		=B9/SUM($B$2:$B$24)	=$F9*REG!V10	=$F9*REG!W10	=$F9*REG!X10	=$F9*REG!Y10	=$F9*REG!Z10
10	22-24	12	216	135		=B10/SUM($B$2:$B$24)	=$F10*REG!V11	=$F10*REG!W11	=$F10*REG!X11	=$F10*REG!Y11	=$F10*REG!Z11
11	24-26	12	234	190		=B11/SUM($B$2:$B$24)	=$F11*REG!V12	=$F11*REG!W12	=$F11*REG!X12	=$F11*REG!Y12	=$F11*REG!Z12
12	26-28	12	288	287		=B12/SUM($B$2:$B$24)	=$F12*REG!V13	=$F12*REG!W13	=$F12*REG!X13	=$F12*REG!Y13	=$F12*REG!Z13
13	28-30	12	324	378		=B13/SUM($B$2:$B$24)	=$F13*REG!V14	=$F13*REG!W14	=$F13*REG!X14	=$F13*REG!Y14	=$F13*REG!Z14
14	30-32	12	378	469		=B14/SUM($B$2:$B$24)	=$F14*REG!V15	=$F14*REG!W15	=$F14*REG!X15	=$F14*REG!Y15	=$F14*REG!Z15
15	32-36	12	414	570		=B15/SUM($B$2:$B$24)	=$F15*REG!V16	=$F15*REG!W16	=$F15*REG!X16	=$F15*REG!Y16	=$F15*REG!Z16
16	36-40	12	468	667		=B16/SUM($B$2:$B$24)	=$F16*REG!V17	=$F16*REG!W17	=$F16*REG!X17	=$F16*REG!Y17	=$F16*REG!Z17
17	40-45	12	522	665		=B17/SUM($B$2:$B$24)	=$F17*REG!V18	=$F17*REG!W18	=$F17*REG!X18	=$F17*REG!Y18	=$F17*REG!Z18
18	45-50	12	576	751		=B18/SUM($B$2:$B$24)	=$F18*REG!V19	=$F18*REG!W19	=$F18*REG!X19	=$F18*REG!Y19	=$F18*REG!Z19
19	50-55	12	630	828		=B19/SUM($B$2:$B$24)	=$F19*REG!V20	=$F19*REG!W20	=$F19*REG!X20	=$F19*REG!Y20	=$F19*REG!Z20
20	55-60	12	684	902		=B20/SUM($B$2:$B$24)	=$F20*REG!V21	=$F20*REG!W21	=$F20*REG!X21	=$F20*REG!Y21	=$F20*REG!Z21
21	60-65	12	738	1099		=B21/SUM($B$2:$B$24)	=$F21*REG!V22	=$F21*REG!W22	=$F21*REG!X22	=$F21*REG!Y22	=$F21*REG!Z22
22	65-70	12	792	1175		=B22/SUM($B$2:$B$24)	=$F22*REG!V23	=$F22*REG!W23	=$F22*REG!X23	=$F22*REG!Y23	=$F22*REG!Z23
23	70-75	12	864	1895		=B23/SUM($B$2:$B$24)	=$F23*REG!V24	=$F23*REG!W24	=$F23*REG!X24	=$F23*REG!Y24	=$F23*REG!Z24
24	75-80	12	918	2217		=B24/SUM($B$2:$B$24)	=$F24*REG!V25	=$F24*REG!W25	=$F24*REG!X25	=$F24*REG!Y25	=$F24*REG!Z25
25											
26											
27						WGT Fee Adj	AU ADJ	PU ADJ	BUS ADJ	SU ADJ	CMB ADJ
28						=C2/SUM($C$2:$C$24)	=$F28*REG!V3	=$F28*REG!W3	=$F28*REG!X3	=$F28*REG!Y3	=$F28*REG!Z3
29						=C3/SUM($C$2:$C$24)	=$F29*REG!V4	=$F29*REG!W4	=$F29*REG!X4	=$F29*REG!Y4	=$F29*REG!Z4
30						=C4/SUM($C$2:$C$24)	=$F30*REG!V5	=$F30*REG!W5	=$F30*REG!X5	=$F30*REG!Y5	=$F30*REG!Z5
31						=C5/SUM($C$2:$C$24)	=$F31*REG!V6	=$F31*REG!W6	=$F31*REG!X6	=$F31*REG!Y6	=$F31*REG!Z6
32						=C6/SUM($C$2:$C$24)	=$F32*REG!V7	=$F32*REG!W7	=$F32*REG!X7	=$F32*REG!Y7	=$F32*REG!Z7
33						=C7/SUM($C$2:$C$24)	=$F33*REG!V8	=$F33*REG!W8	=$F33*REG!X8	=$F33*REG!Y8	=$F33*REG!Z8
34						=C8/SUM($C$2:$C$24)	=$F34*REG!V9	=$F34*REG!W9	=$F34*REG!X9	=$F34*REG!Y9	=$F34*REG!Z9
35						=C9/SUM($C$2:$C$24)	=$F35*REG!V10	=$F35*REG!W10	=$F35*REG!X10	=$F35*REG!Y10	=$F35*REG!Z10
36						=C10/SUM($C$2:$C$24)	=$F36*REG!V11	=$F36*REG!W11	=$F36*REG!X11	=$F36*REG!Y11	=$F36*REG!Z11
37						=C11/SUM($C$2:$C$24)	=$F37*REG!V12	=$F37*REG!W12	=$F37*REG!X12	=$F37*REG!Y12	=$F37*REG!Z12
38						=C12/SUM($C$2:$C$24)	=$F38*REG!V13	=$F38*REG!W13	=$F38*REG!X13	=$F38*REG!Y13	=$F38*REG!Z13
39						=C13/SUM($C$2:$C$24)	=$F39*REG!V14	=$F39*REG!W14	=$F39*REG!X14	=$F39*REG!Y14	=$F39*REG!Z14
40						=C14/SUM($C$2:$C$24)	=$F40*REG!V15	=$F40*REG!W15	=$F40*REG!X15	=$F40*REG!Y15	=$F40*REG!Z15
41						=C15/SUM($C$2:$C$24)	=$F41*REG!V16	=$F41*REG!W16	=$F41*REG!X16	=$F41*REG!Y16	=$F41*REG!Z16
42						=C16/SUM($C$2:$C$24)	=$F42*REG!V17	=$F42*REG!W17	=$F42*REG!X17	=$F42*REG!Y17	=$F42*REG!Z17
43						=C17/SUM($C$2:$C$24)	=$F43*REG!V18	=$F43*REG!W18	=$F43*REG!X18	=$F43*REG!Y18	=$F43*REG!Z18
44						=C18/SUM($C$2:$C$24)	=$F44*REG!V19	=$F44*REG!W19	=$F44*REG!X19	=$F44*REG!Y19	=$F44*REG!Z19
45						=C19/SUM($C$2:$C$24)	=$F45*REG!V20	=$F45*REG!W20	=$F45*REG!X20	=$F45*REG!Y20	=$F45*REG!Z20
46						=C20/SUM($C$2:$C$24)	=$F46*REG!V21	=$F46*REG!W21	=$F46*REG!X21	=$F46*REG!Y21	=$F46*REG!Z21
47						=C21/SUM($C$2:$C$24)	=$F47*REG!V22	=$F47*REG!W22	=$F47*REG!X22	=$F47*REG!Y22	=$F47*REG!Z22
48						=C22/SUM($C$2:$C$24)	=$F48*REG!V23	=$F48*REG!W23	=$F48*REG!X23	=$F48*REG!Y23	=$F48*REG!Z23
49						=C23/SUM($C$2:$C$24)	=$F49*REG!V24	=$F49*REG!W24	=$F49*REG!X24	=$F49*REG!Y24	=$F49*REG!Z24
50						=C24/SUM($C$2:$C$24)	=$F50*REG!V25	=$F50*REG!W25	=$F50*REG!X25	=$F50*REG!Y25	=$F50*REG!Z25
51											
52											

FEE ADJ

	L	M	N	O	P	Q	R	S	T	U	V
1	**Auto Alloc**	**Pick-up Allo**	**Bus Alloc**	**SU Alloc**	**CMB Alloc**	**Total Alloc**	**RE- Bus**	**RE - SU**	**RE- CMB**	**Total Alloc**	**ADJ Total**
2	=G2/SUM($G$2:$K$24)	=H2/SUM($G$2:$K$24)	=I2/SUM($G$2:$K$24)	=J2/SUM($G$2:$K$24)	=K2/SUM($G$2:$K$24)	=SUM(L2:P2)	0	0	=2*P2	=SUM(L2:M2,R2:T2)	=U2/SUM($U$2:$U$24)
3	=G3/SUM($G$2:$K$24)	=H3/SUM($G$2:$K$24)	=I3/SUM($G$2:$K$24)	=J3/SUM($G$2:$K$24)	=K3/SUM($G$2:$K$24)	=SUM(L3:P3)	=N3*(N3/SUM($N3:$O3,$T3))	=O3*(O3/SUM($N3:$O3,$T3))	=2*P3	=SUM(L3:M3,R3:T3)	=U3/SUM($U$2:$U$24)
4	=G4/SUM($G$2:$K$24)	=H4/SUM($G$2:$K$24)	=I4/SUM($G$2:$K$24)	=J4/SUM($G$2:$K$24)	=K4/SUM($G$2:$K$24)	=SUM(L4:P4)	=N4*(N4/SUM($N4:$O4,$T4))	=O4*(O4/SUM($N4:$O4,$T4))	=2*P4	=SUM(L4:M4,R4:T4)	=U4/SUM($U$2:$U$24)
5	=G5/SUM($G$2:$K$24)	=H5/SUM($G$2:$K$24)	=I5/SUM($G$2:$K$24)	=J5/SUM($G$2:$K$24)	=K5/SUM($G$2:$K$24)	=SUM(L5:P5)	=N5*(N5/SUM($N5:$O5,$T5))	=O5*(O5/SUM($N5:$O5,$T5))	=2*P5	=SUM(L5:M5,R5:T5)	=U5/SUM($U$2:$U$24)
6	=G6/SUM($G$2:$K$24)	=H6/SUM($G$2:$K$24)	=I6/SUM($G$2:$K$24)	=J6/SUM($G$2:$K$24)	=K6/SUM($G$2:$K$24)	=SUM(L6:P6)	=N6*(N6/SUM($N6:$O6,$T6))	=O6*(O6/SUM($N6:$O6,$T6))	=2*P6	=SUM(L6:M6,R6:T6)	=U6/SUM($U$2:$U$24)
7	=G7/SUM($G$2:$K$24)	=H7/SUM($G$2:$K$24)	=I7/SUM($G$2:$K$24)	=J7/SUM($G$2:$K$24)	=K7/SUM($G$2:$K$24)	=SUM(L7:P7)	=N7*(N7/SUM($N7:$O7,$T7))	=O7*(O7/SUM($N7:$O7,$T7))	=2*P7	=SUM(L7:M7,R7:T7)	=U7/SUM($U$2:$U$24)
8	=G8/SUM($G$2:$K$24)	=H8/SUM($G$2:$K$24)	=I8/SUM($G$2:$K$24)	=J8/SUM($G$2:$K$24)	=K8/SUM($G$2:$K$24)	=SUM(L8:P8)	=N8*(N8/SUM($N8:$O8,$T8))	=O8*(O8/SUM($N8:$O8,$T8))	=2*P8	=SUM(L8:M8,R8:T8)	=U8/SUM($U$2:$U$24)
9	=G9/SUM($G$2:$K$24)	=H9/SUM($G$2:$K$24)	=I9/SUM($G$2:$K$24)	=J9/SUM($G$2:$K$24)	=K9/SUM($G$2:$K$24)	=SUM(L9:P9)	=N9*(N9/SUM($N9:$O9,$T9))	=O9*(O9/SUM($N9:$O9,$T9))	=2*P9	=SUM(L9:M9,R9:T9)	=U9/SUM($U$2:$U$24)
10	=G10/SUM($G$2:$K$24)	=H10/SUM($G$2:$K$24)	=I10/SUM($G$2:$K$24)	=J10/SUM($G$2:$K$24)	=K10/SUM($G$2:$K$24)	=SUM(L10:P10)	=N10*(N10/SUM($N10:$O10,$T10))	=O10*(O10/SUM($N10:$O10,$T10))	=2*P10	=SUM(L10:M10,R10:T10)	=U10/SUM($U$2:$U$24)
11	=G11/SUM($G$2:$K$24)	=H11/SUM($G$2:$K$24)	=I11/SUM($G$2:$K$24)	=J11/SUM($G$2:$K$24)	=K11/SUM($G$2:$K$24)	=SUM(L11:P11)	=N11*(N11/SUM($N11:$O11,$T11))	=O11*(O11/SUM($N11:$O11,$T11))	=2*P11	=SUM(L11:M11,R11:T11)	=U11/SUM($U$2:$U$24)
12	=G12/SUM($G$2:$K$24)	=H12/SUM($G$2:$K$24)	=I12/SUM($G$2:$K$24)	=J12/SUM($G$2:$K$24)	=K12/SUM($G$2:$K$24)	=SUM(L12:P12)	=N12*(N12/SUM($N12:$O12,$T12))	=O12*(O12/SUM($N12:$O12,$T12))	=2*P12	=SUM(L12:M12,R12:T12)	=U12/SUM($U$2:$U$24)
13	=G13/SUM($G$2:$K$24)	=H13/SUM($G$2:$K$24)	=I13/SUM($G$2:$K$24)	=J13/SUM($G$2:$K$24)	=K13/SUM($G$2:$K$24)	=SUM(L13:P13)	=N13*(N13/SUM($N13:$O13,$T13))	=O13*(O13/SUM($N13:$O13,$T13))	=2*P13	=SUM(L13:M13,R13:T13)	=U13/SUM($U$2:$U$24)
14	=G14/SUM($G$2:$K$24)	=H14/SUM($G$2:$K$24)	=I14/SUM($G$2:$K$24)	=J14/SUM($G$2:$K$24)	=K14/SUM($G$2:$K$24)	=SUM(L14:P14)	=N14*(N14/SUM($N14:$O14,$T14))	=O14*(O14/SUM($N14:$O14,$T14))	=2*P14	=SUM(L14:M14,R14:T14)	=U14/SUM($U$2:$U$24)
15	=G15/SUM($G$2:$K$24)	=H15/SUM($G$2:$K$24)	=I15/SUM($G$2:$K$24)	=J15/SUM($G$2:$K$24)	=K15/SUM($G$2:$K$24)	=SUM(L15:P15)	=N15*(N15/SUM($N15:$O15,$T15))	=O15*(O15/SUM($N15:$O15,$T15))	=2*P15	=SUM(L15:M15,R15:T15)	=U15/SUM($U$2:$U$24)
16	=G16/SUM($G$2:$K$24)	=H16/SUM($G$2:$K$24)	=I16/SUM($G$2:$K$24)	=J16/SUM($G$2:$K$24)	=K16/SUM($G$2:$K$24)	=SUM(L16:P16)	=N16*(N16/SUM($N16:$O16,$T16))	=O16*(O16/SUM($N16:$O16,$T16))	=2*P16	=SUM(L16:M16,R16:T16)	=U16/SUM($U$2:$U$24)
17	=G17/SUM($G$2:$K$24)	=H17/SUM($G$2:$K$24)	=I17/SUM($G$2:$K$24)	=J17/SUM($G$2:$K$24)	=K17/SUM($G$2:$K$24)	=SUM(L17:P17)	=N17*(N17/SUM($N17:$O17,$T17))	=O17*(O17/SUM($N17:$O17,$T17))	=2*P17	=SUM(L17:M17,R17:T17)	=U17/SUM($U$2:$U$24)
18	=G18/SUM($G$2:$K$24)	=H18/SUM($G$2:$K$24)	=I18/SUM($G$2:$K$24)	=J18/SUM($G$2:$K$24)	=K18/SUM($G$2:$K$24)	=SUM(L18:P18)	=N18*(N18/SUM($N18:$O18,$T18))	=O18*(O18/SUM($N18:$O18,$T18))	=2*P18	=SUM(L18:M18,R18:T18)	=U18/SUM($U$2:$U$24)
19	=G19/SUM($G$2:$K$24)	=H19/SUM($G$2:$K$24)	=I19/SUM($G$2:$K$24)	=J19/SUM($G$2:$K$24)	=K19/SUM($G$2:$K$24)	=SUM(L19:P19)	=N19*(N19/SUM($N19:$O19,$T19))	=O19*(O19/SUM($N19:$O19,$T19))	=2*P19	=SUM(L19:M19,R19:T19)	=U19/SUM($U$2:$U$24)
20	=G20/SUM($G$2:$K$24)	=H20/SUM($G$2:$K$24)	=I20/SUM($G$2:$K$24)	=J20/SUM($G$2:$K$24)	=K20/SUM($G$2:$K$24)	=SUM(L20:P20)	=N20*(N20/SUM($N20:$O20,$T20))	=O20*(O20/SUM($N20:$O20,$T20))	=2*P20	=SUM(L20:M20,R20:T20)	=U20/SUM($U$2:$U$24)
21	=G21/SUM($G$2:$K$24)	=H21/SUM($G$2:$K$24)	=I21/SUM($G$2:$K$24)	=J21/SUM($G$2:$K$24)	=K21/SUM($G$2:$K$24)	=SUM(L21:P21)	=N21*(N21/SUM($N21:$O21,$T21))	=O21*(O21/SUM($N21:$O21,$T21))	=2*P21	=SUM(L21:M21,R21:T21)	=U21/SUM($U$2:$U$24)
22	=G22/SUM($G$2:$K$24)	=H22/SUM($G$2:$K$24)	=I22/SUM($G$2:$K$24)	=J22/SUM($G$2:$K$24)	=K22/SUM($G$2:$K$24)	=SUM(L22:P22)	=N22*(N22/SUM($N22:$O22,$T22))	=O22*(O22/SUM($N22:$O22,$T22))	=2*P22	=SUM(L22:M22,R22:T22)	=U22/SUM($U$2:$U$24)
23	=G23/SUM($G$2:$K$24)	=H23/SUM($G$2:$K$24)	=I23/SUM($G$2:$K$24)	=J23/SUM($G$2:$K$24)	=K23/SUM($G$2:$K$24)	=SUM(L23:P23)	=N23*(N23/SUM($N23:$O23,$T23))	=O23*(O23/SUM($N23:$O23,$T23))	=2*P23	=SUM(L23:M23,R23:T23)	=U23/SUM($U$2:$U$24)
24	=G24/SUM($G$2:$K$24)	=H24/SUM($G$2:$K$24)	=I24/SUM($G$2:$K$24)	=J24/SUM($G$2:$K$24)	=K24/SUM($G$2:$K$24)	=SUM(L24:P24)	=N24*(N24/SUM($N24:$O24,$T24))	=O24*(O24/SUM($N24:$O24,$T24))	=2*P24	=SUM(L24:M24,R24:T24)	=U24/SUM($U$2:$U$24)
25	**=SUM(L2:L24)**	**=SUM(M2:M24)**	**=SUM(N2:N24)**	**=SUM(O2:O24)**	**=SUM(P2:P24)**	**=SUM(Q2:Q24)**	**=SUM(R2:R24)**	**=SUM(S2:S24)**	**=SUM(T2:T24)**	**=SUM(U2:U24)**	**=SUM(V2:V24)**
26											
27	**Auto Alloc**	**Pick-up Allo**	**Bus Alloc**	**SU Alloc**	**CMB Alloc**	**Total Alloc**	**RE- Bus**	**RE - SU**	**RE- CMB**	**Total Alloc**	**ADJ Total**
28	=G28/SUM($G$28:$K$50)	=H28/SUM($G$28:$K$50)	=I28/SUM($G$28:$K$50)	=J28/SUM($G$28:$K$50)	=K28/SUM($G$28:$K$50)	=SUM(L28:P28)	0	0	=2*P28	=SUM(L28:M28,R28:T28)	=U28/SUM($U$28:$U$50)
29	=G29/SUM($G$28:$K$50)	=H29/SUM($G$28:$K$50)	=I29/SUM($G$28:$K$50)	=J29/SUM($G$28:$K$50)	=K29/SUM($G$28:$K$50)	=SUM(L29:P29)	=N29*(N29/SUM($N29:$O29,$T29))	=O29*(O29/SUM($N29:$O29,$T29))	=2*P29	=SUM(L29:M29,R29:T29)	=U29/SUM($U$28:$U$50)

FEE ADJ

	L	M	N	O	P	Q	R	S	T	U	V
30	=G30/SUM($G$28:$K$50)	=H30/SUM($G$28:$K$50)	=I30/SUM($G$28:$K$50)	=J30/SUM($G$28:$K$50)	=K30/SUM($G$28:$K$50)	=SUM(L30:P30)	=N30*(N30/SUM($N30:$O30,$T30))	=O30*(O30/SUM($N30:$O30,$T30))	=2*P30	=SUM(L30:M30,R30:T30)	=U30/SUM($U$28:$U$50)
31	=G31/SUM($G$28:$K$50)	=H31/SUM($G$28:$K$50)	=I31/SUM($G$28:$K$50)	=J31/SUM($G$28:$K$50)	=K31/SUM($G$28:$K$50)	=SUM(L31:P31)	=N31*(N31/SUM($N31:$O31,$T31))	=O31*(O31/SUM($N31:$O31,$T31))	=2*P31	=SUM(L31:M31,R31:T31)	=U31/SUM($U$28:$U$50)
32	=G32/SUM($G$28:$K$50)	=H32/SUM($G$28:$K$50)	=I32/SUM($G$28:$K$50)	=J32/SUM($G$28:$K$50)	=K32/SUM($G$28:$K$50)	=SUM(L32:P32)	=N32*(N32/SUM($N32:$O32,$T32))	=O32*(O32/SUM($N32:$O32,$T32))	=2*P32	=SUM(L32:M32,R32:T32)	=U32/SUM($U$28:$U$50)
33	=G33/SUM($G$28:$K$50)	=H33/SUM($G$28:$K$50)	=I33/SUM($G$28:$K$50)	=J33/SUM($G$28:$K$50)	=K33/SUM($G$28:$K$50)	=SUM(L33:P33)	=N33*(N33/SUM($N33:$O33,$T33))	=O33*(O33/SUM($N33:$O33,$T33))	=2*P33	=SUM(L33:M33,R33:T33)	=U33/SUM($U$28:$U$50)
34	=G34/SUM($G$28:$K$50)	=H34/SUM($G$28:$K$50)	=I34/SUM($G$28:$K$50)	=J34/SUM($G$28:$K$50)	=K34/SUM($G$28:$K$50)	=SUM(L34:P34)	=N34*(N34/SUM($N34:$O34,$T34))	=O34*(O34/SUM($N34:$O34,$T34))	=2*P34	=SUM(L34:M34,R34:T34)	=U34/SUM($U$28:$U$50)
35	=G35/SUM($G$28:$K$50)	=H35/SUM($G$28:$K$50)	=I35/SUM($G$28:$K$50)	=J35/SUM($G$28:$K$50)	=K35/SUM($G$28:$K$50)	=SUM(L35:P35)	=N35*(N35/SUM($N35:$O35,$T35))	=O35*(O35/SUM($N35:$O35,$T35))	=2*P35	=SUM(L35:M35,R35:T35)	=U35/SUM($U$28:$U$50)
36	=G36/SUM($G$28:$K$50)	=H36/SUM($G$28:$K$50)	=I36/SUM($G$28:$K$50)	=J36/SUM($G$28:$K$50)	=K36/SUM($G$28:$K$50)	=SUM(L36:P36)	=N36*(N36/SUM($N36:$O36,$T36))	=O36*(O36/SUM($N36:$O36,$T36))	=2*P36	=SUM(L36:M36,R36:T36)	=U36/SUM($U$28:$U$50)
37	=G37/SUM($G$28:$K$50)	=H37/SUM($G$28:$K$50)	=I37/SUM($G$28:$K$50)	=J37/SUM($G$28:$K$50)	=K37/SUM($G$28:$K$50)	=SUM(L37:P37)	=N37*(N37/SUM($N37:$O37,$T37))	=O37*(O37/SUM($N37:$O37,$T37))	=2*P37	=SUM(L37:M37,R37:T37)	=U37/SUM($U$28:$U$50)
38	=G38/SUM($G$28:$K$50)	=H38/SUM($G$28:$K$50)	=I38/SUM($G$28:$K$50)	=J38/SUM($G$28:$K$50)	=K38/SUM($G$28:$K$50)	=SUM(L38:P38)	=N38*(N38/SUM($N38:$O38,$T38))	=O38*(O38/SUM($N38:$O38,$T38))	=2*P38	=SUM(L38:M38,R38:T38)	=U38/SUM($U$28:$U$50)
39	=G39/SUM($G$28:$K$50)	=H39/SUM($G$28:$K$50)	=I39/SUM($G$28:$K$50)	=J39/SUM($G$28:$K$50)	=K39/SUM($G$28:$K$50)	=SUM(L39:P39)	=N39*(N39/SUM($N39:$O39,$T39))	=O39*(O39/SUM($N39:$O39,$T39))	=2*P39	=SUM(L39:M39,R39:T39)	=U39/SUM($U$28:$U$50)
40	=G40/SUM($G$28:$K$50)	=H40/SUM($G$28:$K$50)	=I40/SUM($G$28:$K$50)	=J40/SUM($G$28:$K$50)	=K40/SUM($G$28:$K$50)	=SUM(L40:P40)	=N40*(N40/SUM($N40:$O40,$T40))	=O40*(O40/SUM($N40:$O40,$T40))	=2*P40	=SUM(L40:M40,R40:T40)	=U40/SUM($U$28:$U$50)
41	=G41/SUM($G$28:$K$50)	=H41/SUM($G$28:$K$50)	=I41/SUM($G$28:$K$50)	=J41/SUM($G$28:$K$50)	=K41/SUM($G$28:$K$50)	=SUM(L41:P41)	=N41*(N41/SUM($N41:$O41,$T41))	=O41*(O41/SUM($N41:$O41,$T41))	=2*P41	=SUM(L41:M41,R41:T41)	=U41/SUM($U$28:$U$50)
42	=G42/SUM($G$28:$K$50)	=H42/SUM($G$28:$K$50)	=I42/SUM($G$28:$K$50)	=J42/SUM($G$28:$K$50)	=K42/SUM($G$28:$K$50)	=SUM(L42:P42)	=N42*(N42/SUM($N42:$O42,$T42))	=O42*(O42/SUM($N42:$O42,$T42))	=2*P42	=SUM(L42:M42,R42:T42)	=U42/SUM($U$28:$U$50)
43	=G43/SUM($G$28:$K$50)	=H43/SUM($G$28:$K$50)	=I43/SUM($G$28:$K$50)	=J43/SUM($G$28:$K$50)	=K43/SUM($G$28:$K$50)	=SUM(L43:P43)	=N43*(N43/SUM($N43:$O43,$T43))	=O43*(O43/SUM($N43:$O43,$T43))	=2*P43	=SUM(L43:M43,R43:T43)	=U43/SUM($U$28:$U$50)
44	=G44/SUM($G$28:$K$50)	=H44/SUM($G$28:$K$50)	=I44/SUM($G$28:$K$50)	=J44/SUM($G$28:$K$50)	=K44/SUM($G$28:$K$50)	=SUM(L44:P44)	=N44*(N44/SUM($N44:$O44,$T44))	=O44*(O44/SUM($N44:$O44,$T44))	=2*P44	=SUM(L44:M44,R44:T44)	=U44/SUM($U$28:$U$50)
45	=G45/SUM($G$28:$K$50)	=H45/SUM($G$28:$K$50)	=I45/SUM($G$28:$K$50)	=J45/SUM($G$28:$K$50)	=K45/SUM($G$28:$K$50)	=SUM(L45:P45)	=N45*(N45/SUM($N45:$O45,$T45))	=O45*(O45/SUM($N45:$O45,$T45))	=2*P45	=SUM(L45:M45,R45:T45)	=U45/SUM($U$28:$U$50)
46	=G46/SUM($G$28:$K$50)	=H46/SUM($G$28:$K$50)	=I46/SUM($G$28:$K$50)	=J46/SUM($G$28:$K$50)	=K46/SUM($G$28:$K$50)	=SUM(L46:P46)	=N46*(N46/SUM($N46:$O46,$T46))	=O46*(O46/SUM($N46:$O46,$T46))	=2*P46	=SUM(L46:M46,R46:T46)	=U46/SUM($U$28:$U$50)
47	=G47/SUM($G$28:$K$50)	=H47/SUM($G$28:$K$50)	=I47/SUM($G$28:$K$50)	=J47/SUM($G$28:$K$50)	=K47/SUM($G$28:$K$50)	=SUM(L47:P47)	=N47*(N47/SUM($N47:$O47,$T47))	=O47*(O47/SUM($N47:$O47,$T47))	=2*P47	=SUM(L47:M47,R47:T47)	=U47/SUM($U$28:$U$50)
48	=G48/SUM($G$28:$K$50)	=H48/SUM($G$28:$K$50)	=I48/SUM($G$28:$K$50)	=J48/SUM($G$28:$K$50)	=K48/SUM($G$28:$K$50)	=SUM(L48:P48)	=N48*(N48/SUM($N48:$O48,$T48))	=O48*(O48/SUM($N48:$O48,$T48))	=2*P48	=SUM(L48:M48,R48:T48)	=U48/SUM($U$28:$U$50)
49	=G49/SUM($G$28:$K$50)	=H49/SUM($G$28:$K$50)	=I49/SUM($G$28:$K$50)	=J49/SUM($G$28:$K$50)	=K49/SUM($G$28:$K$50)	=SUM(L49:P49)	=N49*(N49/SUM($N49:$O49,$T49))	=O49*(O49/SUM($N49:$O49,$T49))	=2*P49	=SUM(L49:M49,R49:T49)	=U49/SUM($U$28:$U$50)
50	=G50/SUM($G$28:$K$50)	=H50/SUM($G$28:$K$50)	=I50/SUM($G$28:$K$50)	=J50/SUM($G$28:$K$50)	=K50/SUM($G$28:$K$50)	=SUM(L50:P50)	=N50*(N50/SUM($N50:$O50,$T50))	=O50*(O50/SUM($N50:$O50,$T50))	=2*P50	=SUM(L50:M50,R50:T50)	=U50/SUM($U$28:$U$50)
51	**=SUM(L28:L50)**	**=SUM(M28:M50)**	**=SUM(N28:N50)**	**=SUM(O28:O50)**	**=SUM(P28:P50)**	**=SUM(Q28:Q50)**	**=SUM(R28:R50)**	**=SUM(S28:S50)**	**=SUM(T28:T50)**	**=SUM(U28:U50)**	**=SUM(V28:V50)**
52											

FEE ADJ

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
53						**MC Fee Adj**	**AU ADJ**	**PU ADJ**	**BUS ADJ**	**SU ADJ**	**CMB ADJ**	**Auto Alloc**	**Pick-up Alloc**	**Bus Alloc**
54						=D2/SUM($D$2:$D$24)	=$F54*REG!O31	=$F54*REG!P31	=$F54*REG!Q31	=$F54*REG!R31	=$F54*REG!S31	=G54/SUM($G$54:$K$76)	=H54/SUM($G$54:$K$76)	=I54/SUM($G$54:$K$76)
55						=D3/SUM($D$2:$D$24)	=$F55*REG!O32	=$F55*REG!P32	=$F55*REG!Q32	=$F55*REG!R32	=$F55*REG!S32	=G55/SUM($G$54:$K$76)	=H55/SUM($G$54:$K$76)	=I55/SUM($G$54:$K$76)
56						=D4/SUM($D$2:$D$24)	=$F56*REG!O33	=$F56*REG!P33	=$F56*REG!Q33	=$F56*REG!R33	=$F56*REG!S33	=G56/SUM($G$54:$K$76)	=H56/SUM($G$54:$K$76)	=I56/SUM($G$54:$K$76)
57						=D5/SUM($D$2:$D$24)	=$F57*REG!O34	=$F57*REG!P34	=$F57*REG!Q34	=$F57*REG!R34	=$F57*REG!S34	=G57/SUM($G$54:$K$76)	=H57/SUM($G$54:$K$76)	=I57/SUM($G$54:$K$76)
58						=D6/SUM($D$2:$D$24)	=$F58*REG!O35	=$F58*REG!P35	=$F58*REG!Q35	=$F58*REG!R35	=$F58*REG!S35	=G58/SUM($G$54:$K$76)	=H58/SUM($G$54:$K$76)	=I58/SUM($G$54:$K$76)
59						=D7/SUM($D$2:$D$24)	=$F59*REG!O36	=$F59*REG!P36	=$F59*REG!Q36	=$F59*REG!R36	=$F59*REG!S36	=G59/SUM($G$54:$K$76)	=H59/SUM($G$54:$K$76)	=I59/SUM($G$54:$K$76)
60						=D8/SUM($D$2:$D$24)	=$F60*REG!O37	=$F60*REG!P37	=$F60*REG!Q37	=$F60*REG!R37	=$F60*REG!S37	=G60/SUM($G$54:$K$76)	=H60/SUM($G$54:$K$76)	=I60/SUM($G$54:$K$76)
61						=D9/SUM($D$2:$D$24)	=$F61*REG!O38	=$F61*REG!P38	=$F61*REG!Q38	=$F61*REG!R38	=$F61*REG!S38	=G61/SUM($G$54:$K$76)	=H61/SUM($G$54:$K$76)	=I61/SUM($G$54:$K$76)
62						=D10/SUM($D$2:$D$24)	=$F62*REG!O39	=$F62*REG!P39	=$F62*REG!Q39	=$F62*REG!R39	=$F62*REG!S39	=G62/SUM($G$54:$K$76)	=H62/SUM($G$54:$K$76)	=I62/SUM($G$54:$K$76)
63						=D11/SUM($D$2:$D$24)	=$F63*REG!O40	=$F63*REG!P40	=$F63*REG!Q40	=$F63*REG!R40	=$F63*REG!S40	=G63/SUM($G$54:$K$76)	=H63/SUM($G$54:$K$76)	=I63/SUM($G$54:$K$76)
64						=D12/SUM($D$2:$D$24)	=$F64*REG!O41	=$F64*REG!P41	=$F64*REG!Q41	=$F64*REG!R41	=$F64*REG!S41	=G64/SUM($G$54:$K$76)	=H64/SUM($G$54:$K$76)	=I64/SUM($G$54:$K$76)
65						=D13/SUM($D$2:$D$24)	=$F65*REG!O42	=$F65*REG!P42	=$F65*REG!Q42	=$F65*REG!R42	=$F65*REG!S42	=G65/SUM($G$54:$K$76)	=H65/SUM($G$54:$K$76)	=I65/SUM($G$54:$K$76)
66						=D14/SUM($D$2:$D$24)	=$F66*REG!O43	=$F66*REG!P43	=$F66*REG!Q43	=$F66*REG!R43	=$F66*REG!S43	=G66/SUM($G$54:$K$76)	=H66/SUM($G$54:$K$76)	=I66/SUM($G$54:$K$76)
67						=D15/SUM($D$2:$D$24)	=$F67*REG!O44	=$F67*REG!P44	=$F67*REG!Q44	=$F67*REG!R44	=$F67*REG!S44	=G67/SUM($G$54:$K$76)	=H67/SUM($G$54:$K$76)	=I67/SUM($G$54:$K$76)
68						=D16/SUM($D$2:$D$24)	=$F68*REG!O45	=$F68*REG!P45	=$F68*REG!Q45	=$F68*REG!R45	=$F68*REG!S45	=G68/SUM($G$54:$K$76)	=H68/SUM($G$54:$K$76)	=I68/SUM($G$54:$K$76)
69						=D17/SUM($D$2:$D$24)	=$F69*REG!O46	=$F69*REG!P46	=$F69*REG!Q46	=$F69*REG!R46	=$F69*REG!S46	=G69/SUM($G$54:$K$76)	=H69/SUM($G$54:$K$76)	=I69/SUM($G$54:$K$76)
70						=D18/SUM($D$2:$D$24)	=$F70*REG!O47	=$F70*REG!P47	=$F70*REG!Q47	=$F70*REG!R47	=$F70*REG!S47	=G70/SUM($G$54:$K$76)	=H70/SUM($G$54:$K$76)	=I70/SUM($G$54:$K$76)
71						=D19/SUM($D$2:$D$24)	=$F71*REG!O48	=$F71*REG!P48	=$F71*REG!Q48	=$F71*REG!R48	=$F71*REG!S48	=G71/SUM($G$54:$K$76)	=H71/SUM($G$54:$K$76)	=I71/SUM($G$54:$K$76)
72						=D20/SUM($D$2:$D$24)	=$F72*REG!O49	=$F72*REG!P49	=$F72*REG!Q49	=$F72*REG!R49	=$F72*REG!S49	=G72/SUM($G$54:$K$76)	=H72/SUM($G$54:$K$76)	=I72/SUM($G$54:$K$76)
73						=D21/SUM($D$2:$D$24)	=$F73*REG!O50	=$F73*REG!P50	=$F73*REG!Q50	=$F73*REG!R50	=$F73*REG!S50	=G73/SUM($G$54:$K$76)	=H73/SUM($G$54:$K$76)	=I73/SUM($G$54:$K$76)
74						=D22/SUM($D$2:$D$24)	=$F74*REG!O51	=$F74*REG!P51	=$F74*REG!Q51	=$F74*REG!R51	=$F74*REG!S51	=G74/SUM($G$54:$K$76)	=H74/SUM($G$54:$K$76)	=I74/SUM($G$54:$K$76)
75						=D23/SUM($D$2:$D$24)	=$F75*REG!O52	=$F75*REG!P52	=$F75*REG!Q52	=$F75*REG!R52	=$F75*REG!S52	=G75/SUM($G$54:$K$76)	=H75/SUM($G$54:$K$76)	=I75/SUM($G$54:$K$76)
76						=D24/SUM($D$2:$D$24)	=$F76*REG!O53	=$F76*REG!P53	=$F76*REG!Q53	=$F76*REG!R53	=$F76*REG!S53	=G76/SUM($G$54:$K$76)	=H76/SUM($G$54:$K$76)	=I76/SUM($G$54:$K$76)
77												**=SUM(L54:L76)**	**=SUM(M54:M76)**	**=SUM(N54:N76)**

FEE ADJ

	O	P	Q	R	S	T	U	V
53	**SU Alloc**	**CMB Alloc**	**Total Alloc**	**RE- Bus**	**RE - SU**	**RE- CMB**	**Total Alloc**	**ADJ Total**
54	=J54/SUM($G$54:$K$76)	=K54/SUM($G$54:$K$76)	=SUM(L54:P54)	0	0	=2*P54	=SUM(L54:M54,R54:T54)	=U54/SUM($U$54:$U$76)
55	=J55/SUM($G$54:$K$76)	=K55/SUM($G$54:$K$76)	=SUM(L55:P55)	=N55*(N55/SUM($N55:$O55,$T55))	=O55*(O55/SUM($N55:$O55,$T55))	=2*P55	=SUM(L55:M55,R55:T55)	=U55/SUM($U$54:$U$76)
56	=J56/SUM($G$54:$K$76)	=K56/SUM($G$54:$K$76)	=SUM(L56:P56)	=N56*(N56/SUM($N56:$O56,$T56))	=O56*(O56/SUM($N56:$O56,$T56))	=2*P56	=SUM(L56:M56,R56:T56)	=U56/SUM($U$54:$U$76)
57	=J57/SUM($G$54:$K$76)	=K57/SUM($G$54:$K$76)	=SUM(L57:P57)	=N57*(N57/SUM($N57:$O57,$T57))	=O57*(O57/SUM($N57:$O57,$T57))	=2*P57	=SUM(L57:M57,R57:T57)	=U57/SUM($U$54:$U$76)
58	=J58/SUM($G$54:$K$76)	=K58/SUM($G$54:$K$76)	=SUM(L58:P58)	=N58*(N58/SUM($N58:$O58,$T58))	=O58*(O58/SUM($N58:$O58,$T58))	=2*P58	=SUM(L58:M58,R58:T58)	=U58/SUM($U$54:$U$76)
59	=J59/SUM($G$54:$K$76)	=K59/SUM($G$54:$K$76)	=SUM(L59:P59)	=N59*(N59/SUM($N59:$O59,$T59))	=O59*(O59/SUM($N59:$O59,$T59))	=2*P59	=SUM(L59:M59,R59:T59)	=U59/SUM($U$54:$U$76)
60	=J60/SUM($G$54:$K$76)	=K60/SUM($G$54:$K$76)	=SUM(L60:P60)	=N60*(N60/SUM($N60:$O60,$T60))	=O60*(O60/SUM($N60:$O60,$T60))	=2*P60	=SUM(L60:M60,R60:T60)	=U60/SUM($U$54:$U$76)
61	=J61/SUM($G$54:$K$76)	=K61/SUM($G$54:$K$76)	=SUM(L61:P61)	=N61*(N61/SUM($N61:$O61,$T61))	=O61*(O61/SUM($N61:$O61,$T61))	=2*P61	=SUM(L61:M61,R61:T61)	=U61/SUM($U$54:$U$76)
62	=J62/SUM($G$54:$K$76)	=K62/SUM($G$54:$K$76)	=SUM(L62:P62)	=N62*(N62/SUM($N62:$O62,$T62))	=O62*(O62/SUM($N62:$O62,$T62))	=2*P62	=SUM(L62:M62,R62:T62)	=U62/SUM($U$54:$U$76)
63	=J63/SUM($G$54:$K$76)	=K63/SUM($G$54:$K$76)	=SUM(L63:P63)	=N63*(N63/SUM($N63:$O63,$T63))	=O63*(O63/SUM($N63:$O63,$T63))	=2*P63	=SUM(L63:M63,R63:T63)	=U63/SUM($U$54:$U$76)
64	=J64/SUM($G$54:$K$76)	=K64/SUM($G$54:$K$76)	=SUM(L64:P64)	=N64*(N64/SUM($N64:$O64,$T64))	=O64*(O64/SUM($N64:$O64,$T64))	=2*P64	=SUM(L64:M64,R64:T64)	=U64/SUM($U$54:$U$76)
65	=J65/SUM($G$54:$K$76)	=K65/SUM($G$54:$K$76)	=SUM(L65:P65)	=N65*(N65/SUM($N65:$O65,$T65))	=O65*(O65/SUM($N65:$O65,$T65))	=2*P65	=SUM(L65:M65,R65:T65)	=U65/SUM($U$54:$U$76)
66	=J66/SUM($G$54:$K$76)	=K66/SUM($G$54:$K$76)	=SUM(L66:P66)	=N66*(N66/SUM($N66:$O66,$T66))	=O66*(O66/SUM($N66:$O66,$T66))	=2*P66	=SUM(L66:M66,R66:T66)	=U66/SUM($U$54:$U$76)
67	=J67/SUM($G$54:$K$76)	=K67/SUM($G$54:$K$76)	=SUM(L67:P67)	=N67*(N67/SUM($N67:$O67,$T67))	=O67*(O67/SUM($N67:$O67,$T67))	=2*P67	=SUM(L67:M67,R67:T67)	=U67/SUM($U$54:$U$76)
68	=J68/SUM($G$54:$K$76)	=K68/SUM($G$54:$K$76)	=SUM(L68:P68)	=N68*(N68/SUM($N68:$O68,$T68))	=O68*(O68/SUM($N68:$O68,$T68))	=2*P68	=SUM(L68:M68,R68:T68)	=U68/SUM($U$54:$U$76)
69	=J69/SUM($G$54:$K$76)	=K69/SUM($G$54:$K$76)	=SUM(L69:P69)	=N69*(N69/SUM($N69:$O69,$T69))	=O69*(O69/SUM($N69:$O69,$T69))	=2*P69	=SUM(L69:M69,R69:T69)	=U69/SUM($U$54:$U$76)
70	=J70/SUM($G$54:$K$76)	=K70/SUM($G$54:$K$76)	=SUM(L70:P70)	=N70*(N70/SUM($N70:$O70,$T70))	=O70*(O70/SUM($N70:$O70,$T70))	=2*P70	=SUM(L70:M70,R70:T70)	=U70/SUM($U$54:$U$76)
71	=J71/SUM($G$54:$K$76)	=K71/SUM($G$54:$K$76)	=SUM(L71:P71)	=N71*(N71/SUM($N71:$O71,$T71))	=O71*(O71/SUM($N71:$O71,$T71))	=2*P71	=SUM(L71:M71,R71:T71)	=U71/SUM($U$54:$U$76)
72	=J72/SUM($G$54:$K$76)	=K72/SUM($G$54:$K$76)	=SUM(L72:P72)	=N72*(N72/SUM($N72:$O72,$T72))	=O72*(O72/SUM($N72:$O72,$T72))	=2*P72	=SUM(L72:M72,R72:T72)	=U72/SUM($U$54:$U$76)
73	=J73/SUM($G$54:$K$76)	=K73/SUM($G$54:$K$76)	=SUM(L73:P73)	=N73*(N73/SUM($N73:$O73,$T73))	=O73*(O73/SUM($N73:$O73,$T73))	=2*P73	=SUM(L73:M73,R73:T73)	=U73/SUM($U$54:$U$76)
74	=J74/SUM($G$54:$K$76)	=K74/SUM($G$54:$K$76)	=SUM(L74:P74)	=N74*(N74/SUM($N74:$O74,$T74))	=O74*(O74/SUM($N74:$O74,$T74))	=2*P74	=SUM(L74:M74,R74:T74)	=U74/SUM($U$54:$U$76)
75	=J75/SUM($G$54:$K$76)	=K75/SUM($G$54:$K$76)	=SUM(L75:P75)	=N75*(N75/SUM($N75:$O75,$T75))	=O75*(O75/SUM($N75:$O75,$T75))	=2*P75	=SUM(L75:M75,R75:T75)	=U75/SUM($U$54:$U$76)
76	=J76/SUM($G$54:$K$76)	=K76/SUM($G$54:$K$76)	=SUM(L76:P76)	=N76*(N76/SUM($N76:$O76,$T76))	=O76*(O76/SUM($N76:$O76,$T76))	=2*P76	=SUM(L76:M76,R76:T76)	=U76/SUM($U$54:$U$76)
77	**=SUM(O54:O76)**	**=SUM(P54:P76)**	**=SUM(Q54:Q76)**	**=SUM(R54:R76)**	**=SUM(S54:S76)**	**=SUM(T54:T76)**	**=SUM(U54:U76)**	**=SUM(V54:V76)**

EXP ARRAY

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	Array of Program-Period Expenditures															
2	(Thousands of Dollars)															
3	Program Year	State				Federal				Local: Cities & Towns				Local: Counties		TOTAL
4		Overhead & Admin	Common Obligation	Urban Obligation	Rural Obligation	Common Obligation	Urban Obligation	Rural Obligation	Other Common	State Aid	Federal Aid	Direct Local	State Aid	Federal Aid	Direct Local	
5	='EXP IN'!B2	=(HLOOKUP(A5,'EXP IN'!$G$3:$K$35,3,FALSE)-HLOOKUP(A5,'EXP IN'!$G$3:$K$35,10,FALSE))+((HLOOKUP(A5,'EXP IN'!$G$3:$K$35,7,FALSE)*'LOCAL ADJ'!$G$37)-'EXP ARRAY'!I5)							=IF((HLOOKUP(A5,'EXP IN'!$G$3:$K$35,22,FALSE)=0),7392,HLOOKUP(A5,'EXP IN'!$G$3:$K$35,22,FALSE))	=HLOOKUP($A5,'EXP IN'!$G$3:$K$35,31,FALSE)+HLOOKUP($A5,'EXP IN'!$G$3:$K$35,32,FALSE)	='LOCAL ADJ'!$G$32*(HLOOKUP($A5,'EXP IN'!$G$3:$K$35,19,FALSE)+HLOOKUP($A5,'EXP IN'!$G$3:$K$35,20,FALSE))	=HLOOKUP($A5,'EXP IN'!$G$3:$K$35,23,FALSE)+HLOOKUP($A5,'EXP IN'!$G$3:$K$35,24,FALSE)+('LOCAL ADJ'!$G$33*HLOOKUP($A5,'EXP IN'!$G$3:$K$35,32,FALSE))	=HLOOKUP($A5,'EXP IN'!$G$3:$K$35,33,FALSE)	='LOCAL ADJ'!$G$35*HLOOKUP($A5,'EXP IN'!$G$3:$K$35,21,FALSE)	='LOCAL ADJ'!$G$36*M5	
6	=A5+1	=(HLOOKUP(A6,'EXP IN'!$G$3:$K$35,3,FALSE)-HLOOKUP(A6,'EXP IN'!$G$3:$K$35,10,FALSE))+((HLOOKUP(A6,'EXP IN'!$G$3:$K$35,7,FALSE)*'LOCAL ADJ'!$G$37)-'EXP ARRAY'!I6)							=IF((HLOOKUP(A6,'EXP IN'!$G$3:$K$35,22,FALSE)=0),7392,HLOOKUP(A6,'EXP IN'!$G$3:$K$35,22,FALSE))	=HLOOKUP($A6,'EXP IN'!$G$3:$K$35,31,FALSE)+HLOOKUP($A6,'EXP IN'!$G$3:$K$35,32,FALSE)	='LOCAL ADJ'!$G$32*(HLOOKUP($A6,'EXP IN'!$G$3:$K$35,19,FALSE)+HLOOKUP($A6,'EXP IN'!$G$3:$K$35,20,FALSE))	=HLOOKUP($A6,'EXP IN'!$G$3:$K$35,23,FALSE)+HLOOKUP($A6,'EXP IN'!$G$3:$K$35,24,FALSE)+('LOCAL ADJ'!$G$33*HLOOKUP($A6,'EXP IN'!$G$3:$K$35,32,FALSE))	=HLOOKUP($A6,'EXP IN'!$G$3:$K$35,33,FALSE)	='LOCAL ADJ'!$G$35*HLOOKUP($A6,'EXP IN'!$G$3:$K$35,21,FALSE)	='LOCAL ADJ'!$G$36*M6	

EXP ARRAY

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
7	=A6+1	=(HLOOKUP(A7,'EXP IN'!$G$3:$K$35,3,FALSE)-HLOOKUP(A7,'EXP IN'!$G$3:$K$35,10,FALSE))+((HLOOKUP(A7,'EXP IN'!$G$3:$K$35,7,FALSE)*'LOCAL ADJ'!$G$37)-'EXP ARRAY'!I7)							=IF((HLOOKUP(A7,'EXP IN'!$G$3:$K$35,22,FALSE)=0),7392,HLOOKUP(A7,'EXP IN'!$G$3:$K$35,22,FALSE))	=HLOOKUP($A7,'EXP IN'!$G$3:$K$35,31,FALSE)+HLOOKUP($A7,'EXP IN'!$G$3:$K$35,32,FALSE)	='LOCAL ADJ'!$G$32*(HLOOKUP($A7,'EXP IN'!$G$3:$K$35,19,FALSE)+HLOOKUP($A7,'EXP IN'!$G$3:$K$35,20,FALSE))	=HLOOKUP($A7,'EXP IN'!$G$3:$K$35,23,FALSE)+HLOOKUP($A7,'EXP IN'!$G$3:$K$35,24,FALSE)+('LOCAL ADJ'!$G$33*HLOOKUP($A7,'EXP IN'!$G$3:$K$35,32,FALSE))	=HLOOKUP($A7,'EXP IN'!$G$3:$K$35,33,FALSE)	='LOCAL ADJ'!$G$35*HLOOKUP($A7,'EXP IN'!$G$3:$K$35,21,FALSE)	='LOCAL ADJ'!$G$36*M7	
8	=A7+1	=(HLOOKUP(A8,'EXP IN'!$G$3:$K$35,3,FALSE)-HLOOKUP(A8,'EXP IN'!$G$3:$K$35,10,FALSE))+((HLOOKUP(A8,'EXP IN'!$G$3:$K$35,7,FALSE)*'LOCAL ADJ'!$G$37)-'EXP ARRAY'!I8)							=IF((HLOOKUP(A8,'EXP IN'!$G$3:$K$35,22,FALSE)=0),7392,HLOOKUP(A8,'EXP IN'!$G$3:$K$35,22,FALSE))	=HLOOKUP($A8,'EXP IN'!$G$3:$K$35,31,FALSE)+HLOOKUP($A8,'EXP IN'!$G$3:$K$35,32,FALSE)	='LOCAL ADJ'!$G$32*(HLOOKUP($A8,'EXP IN'!$G$3:$K$35,19,FALSE)+HLOOKUP($A8,'EXP IN'!$G$3:$K$35,20,FALSE))	=HLOOKUP($A8,'EXP IN'!$G$3:$K$35,23,FALSE)+HLOOKUP($A8,'EXP IN'!$G$3:$K$35,24,FALSE)+('LOCAL ADJ'!$G$33*HLOOKUP($A8,'EXP IN'!$G$3:$K$35,32,FALSE))	=HLOOKUP($A8,'EXP IN'!$G$3:$K$35,33,FALSE)	='LOCAL ADJ'!$G$35*HLOOKUP($A8,'EXP IN'!$G$3:$K$35,21,FALSE)	='LOCAL ADJ'!$G$36*M8	
9	=A8+1	=(HLOOKUP(A9,'EXP IN'!$G$3:$K$35,3,FALSE)-HLOOKUP(A9,'EXP IN'!$G$3:$K$35,10,FALSE))+((HLOOKUP(A9,'EXP IN'!$G$3:$K$35,7,FALSE)*'LOCAL ADJ'!$G$37)-'EXP ARRAY'!I9)							=IF((HLOOKUP(A9,'EXP IN'!$G$3:$K$35,22,FALSE)=0),7392,HLOOKUP(A9,'EXP IN'!$G$3:$K$35,22,FALSE))	=HLOOKUP($A9,'EXP IN'!$G$3:$K$35,31,FALSE)+HLOOKUP($A9,'EXP IN'!$G$3:$K$35,32,FALSE)	='LOCAL ADJ'!$G$32*(HLOOKUP($A9,'EXP IN'!$G$3:$K$35,19,FALSE)+HLOOKUP($A9,'EXP IN'!$G$3:$K$35,20,FALSE))	=HLOOKUP($A9,'EXP IN'!$G$3:$K$35,23,FALSE)+HLOOKUP($A9,'EXP IN'!$G$3:$K$35,24,FALSE)+('LOCAL ADJ'!$G$33*HLOOKUP($A9,'EXP IN'!$G$3:$K$35,32,FALSE))	=HLOOKUP($A9,'EXP IN'!$G$3:$K$35,33,FALSE)	='LOCAL ADJ'!$G$35*HLOOKUP($A9,'EXP IN'!$G$3:$K$35,21,FALSE)	='LOCAL ADJ'!$G$36*M9	
10																
11	**Total**	**=SUM(B5:B9)**	**='EXP IN'!B21**	**='EXP IN'!B19**	**='EXP IN'!B20**	**='EXP IN'!C21**	**='EXP IN'!C19**	**='EXP IN'!C20**	**=SUM(I5:I9)**	**=SUM(J5:J9)**	**=SUM(K5:K9)**	**=SUM(L5:L9)**	**=SUM(M5:M9)**	**=SUM(N5:N9)**	**=SUM(O5:O9)**	**=SUM(B11:O11)**
12	**Average**	**=B11/5**	**=C11/5**	**=D11/5**	**=E11/5**	**=F11/5**	**=G11/5**	**=H11/5**	**=I11/5**	**=J11/5**	**=K11/5**	**=L11/5**	**=M11/5**	**=N11/5**	**=O11/5**	**=SUM(B12:O12)**

LOCAL ADJ

	A	B	C	D	E	F	G	H
1	**Allocation Factors for Distribution of Local Government Expenditures**							
2	**Local Highway Disbursements**	**Proportion of Alloc Exp**		**Allocation Category**	**Allocation by VMT**		**Allocation by ESALs**	
3		**Counties**	**Cities & Towns**		**Counties**	**Cities & Towns**	**Counties**	**Cities & Towns**
4	Capital outlay	0.361292153589006	0.424350850344881	Split	0	=C4	=B4	0
5	Maintenance	0.391827031844725	0.247249448848179	Split	=B5*$B26	=C5*$B26	=B5*$B25	=C5*$B25
6	Road and street svcs							
7	Traffic control	0.0334641393538091	0.0311085966815846	Common	=B7	=C7	0	0
8	Snow and ice	0.00765524056907137	0.0017138859747257 6	Common	=B8	=C8	0	0
9	Other	0.080242509083189	0.0564500739405947	Common	=B9	=C9	0	0
10	Services Subtotal	=SUM(B7:B9)	=SUM(C7:C9)	Common	=B10	=C10	0	0
11	General admin/misc	0.11861836635428	0.0538745008683114	Common	=B11	=C11	0	0
12	Highway law enforcement & safety	0.00244991883954488	0.0702649302886769	Common	=B12	=C12	0	0
13	Interest on local obligations	0.00445064036637455	0.114987713053046	Common	=B13	=C13	0	0
14	Total	=SUM(B4:B5,B10:B13)	=SUM(C4:C5,C10:C1 3)		**=SUM(E4:E5,E10: E13)**	**=SUM(F4:F5,F10: F13)**	**=SUM(G4:G5,G10 :G13)**	**=SUM(H4:H5,H10: H13)**
15								
16	**Conversion of Local Maintenance Costs**							
17	(State estimates provided by Lonnie Hendrix)							
18	Maintenance Budget (approx. annual)	80000000						
19	Pavement portion (direct state)							
20	FY 1997	9740000						
21	FY 1998	7610000						
22	Average	=AVERAGE(B20:B21)						
23	Pavement portion (contractor)	1200000						
24	Total pavement portion (average)	=SUM(B22:B23)						
25	**Pavement Ratio**	**=B24/B18**						
26	**Non-Pavement Ratio**	**=1-B25**						
27								
28	**Adjustments to Federal and Local Apportionments**				**Consolidated Adj. Factors for Local & Highway Patrol Expend.**			
29	(Adjustment factors derived from Local Highway Finance Report, 1997)							
30	**Expenditure Category**	**1997 Actual**	**ADJ Factor**		**Expenditure Category**		**ADJ Factor**	
31	**Cities & Towns**				**Cities & Towns**			
32	Federal Funds				Federal estimate		=C36	
33	FHWA Apportionment	7739.224			Local estimate		=C43	
34	Other Federal Agencies	=357.043+970.164+147.2 49+327.58			**Counties**			
35	Federal Subtotal	=SUM(B33:B34)			Federal estimate		=C51	
36	Road and Street Purposes	=7739.224+327.58	=B36/B33		Local estimate		=I52*(I55^('EXP IN'!B4-E49))	
37	State Funds				**Highway Patrol**		=C62	
38	HURF Distribution	260470.043						
39	Other State Funds	=31845.911+16443.922						
40	State Subtotal	=SUM(B38:B39)						

LOCAL ADJ

	A	B	C	D	E	F	G	H	I
41	Road and Street Purposes	307976.297	=(B41-B45)/B38				**Receipts by Source**		
42	Local Funds				**Fiscal Year**	**Total Disbursements**	**State**	**Federal**	**Net Local Oblig.**
43	Used for Highway Purposes	=(355843.534+46206.726+27.247)-(B41+B36)	=B43/SUM(B33,B38)						
44	Highway Patrol	28251.948			1992	=836219-134434	320463	8793	=F44-SUM(G44:H44)
45	General Fund estimate	=B44-((B44/SUM($B$44,$B$59))*5015)	=B45/B38		1993	=707699-134995	334672	22254	=F45-SUM(G45:H45)
46	**Counties**				1994	=645242-158955	364144	5836	=F46-SUM(G46:H46)
47	Federal Funds				1995	=705772-164292	392993	6553	=F47-SUM(G47:H47)
48	FHWA Apportionment	6827.317			1996	=797976-186530	401428	1657	=F48-SUM(G48:H48)
49	Other Federal Agencies	=740.92+3410.444+10.93+121.701+1854.102			1997	=733608-70277	471243	22020	=F49-SUM(G49:H49)
50	Federal Subtotal	=SUM(B48:B49)							
51	Road and Street Purposes	=9196.34+1854.102	=B51/B48		Average	=AVERAGE(F44:F49)	=AVERAGE(G45:G49)	=AVERAGE(H45:H49)	=AVERAGE(I45:I49)
52	State Funds				Average Share		=G51/$F$51	=H51/$F$51	=I51/$F$51
53	HURF Distribution	159674.598							
54	Other State Funds	3591.769			Annualized growth 1992	=(F49/F44)^(1/($E49-$E44))	=(G49/G44)^(1/($E49-$E44))	=(H49/H44)^(1/($E49-$E44))	=(I49/I44)^(1/($E49-$E44))
55	State Subtotal	=SUM(B53:B54)			Annualized growth 1993	**=(F49/F45)^(1/($E49-$E45))**	**=(G49/G45)^(1/($E49-$E45))**	**=(H49/H45)^(1/($E49-$E45))**	**=(I49/I45)^(1/($E49-$E45))**
56	Road and Street Purposes	=159412.706+2221.019+300			Recent Deviation	=F49/F51	=G49/G51	=H49/H51	=I49/I51
57	Local Funds				STDEV	=STDEV(F44,F45,F46,F47,F48,F49)	=STDEV(G44,G45,G46,G47,G48,G49)	=STDEV(H44,H45,H46,H47,H48,H49)	=STDEV(I44,I45,I46,I47,I48,I49)
58	Used for Highway Purposes	=(182597.522+803.105+13.204)-(B51+B56)	=B58/SUM(B48,B53)		AVEDEV	=AVEDEV(F44:F49)	=AVEDEV(G44:G49)	=AVEDEV(H44:H49)	=AVEDEV(I44:I49)
59	Highway Patrol	449.349							
60	General Fund estimate	=B59-((B59/SUM($B$44,$B$59))*5015)	=B60/B53						
61	**Total Highway Patrol Estimate**	=SUM(B44,B59)							
62	DPS Transfer (HURF Discretionary)	19600	=B61/B62						

HURF DIST

	A	B	C	D	E	F	G	H	I
1	**Distribution of HURF Revenues**								
2	(Thousands of Dollars)								
3									
4	**Fiscal Year**	**Highway Fund [a]**	**MAG/PAG**	**Cities & Towns**	**Counties**	**DPS**	**Econ. Strength**	**Insurance Transfer**	**Total**
5	1988	243799	48968	197472	117144	0	0	0	=SUM(B5:H5)
6	1989	269915	50905	204112	121052	0	500	0	=SUM(B6:H6)
7	1990	277445	52253	209767	124092	0	500	0	=SUM(B7:H7)
8	1991	294567	52300	208708	123746	0	500	0	=SUM(B8:H8)
9	1992	288992	50815	201394	119068	12453	1000	1473	=SUM(B9:H9)
10	1993	302176	53128	210531	124468	24928	1000	1212	=SUM(B10:H10)
11	1994	328150	57693	228606	135157	24925	1000	532	=SUM(B11:H11)
12	1995	339751	59853	237920	140627	20000	1000	1000	=SUM(B12:H12)
13	1996	365015	64809	256988	151762	20000	1000	0	=SUM(B13:H13)
14	1997	376193	67431	267931	166908	17500	1000	0	=SUM(B14:H14)
15	1998	389613	69836	277489	172862	15000	1000	0	=SUM(B15:H15)
16	1999	392353	70328	279441	174078	12500	1000	0	=SUM(B16:H16)
17	2000	407213	72991	290025	180671	10000	1000	0	=SUM(B17:H17)
18	2001	420917	75447	299785	186751	10000	1000	0	=SUM(B18:H18)
19	2002	439117	78710	312747	194826	10000	1000	0	=SUM(B19:H19)
20	2003	455861	81711	324673	202255	10000	1000	0	=SUM(B20:H20)
21	2004	476545	85419	339404	211432	10000	1000	0	=SUM(B21:H21)
22	2005	496159	88934	353373	220134	10000	1000	0	=SUM(B22:H22)
23	2006	515868	92455	367403	228874	10000	1000	0	=SUM(B23:H23)
24	2007								=SUM(B24:H24)
25	2008								=SUM(B25:H25)
26	2009								=SUM(B26:H26)
27	2010								=SUM(B27:H27)
28	2011								=SUM(B28:H28)
29	2012								=SUM(B29:H29)
30	2013								=SUM(B30:H30)
31	2014								=SUM(B31:H31)
32	2015								=SUM(B32:H32)
33	2016								=SUM(B33:H33)
34	2017								=SUM(B34:H34)
35	2018								=SUM(B35:H35)
36	2019								=SUM(B36:H36)
37	2020								=SUM(B37:H37)

FED FEES

	A	B	C	D	E	F	G	H	I	J	K	L
1	Tire Tax Allocation Factos by Weight Class											
2	WGT	Single Unit			CMB Single Trailer			CMB Multi-trailer			Total	Allocation Factor
3		SU2	SU3	SU4+	CS 4A	CS 5A	CS 6A	CM 5A	CM 6A	CM 7A		
4	0-8	=COMWGT!B64*CONFIG!$U$3	=COMWGT!C64*CONFIG!$U$4	=COMWGT!D64*CONFIG!$U$5	=COMWGT!F64*CONFIG!$U$7	=COMWGT!G64*CONFIG!$U$8	=COMWGT!H64*CONFIG!$U$9	=COMWGT!J64*CONFIG!$U$11	=COMWGT!K64*CONFIG!$U$12	=COMWGT!L64*CONFIG!$U$13	=SUM(B4:J4)	**=K4/SUM($K$4:$K$26)**
5	8-10	=COMWGT!B65*CONFIG!$U$3	=COMWGT!C65*CONFIG!$U$4	=COMWGT!D65*CONFIG!$U$5	=COMWGT!F65*CONFIG!$U$7	=COMWGT!G65*CONFIG!$U$8	=COMWGT!H65*CONFIG!$U$9	=COMWGT!J65*CONFIG!$U$11	=COMWGT!K65*CONFIG!$U$12	=COMWGT!L65*CONFIG!$U$13	=SUM(B5:J5)	**=K5/SUM($K$4:$K$26)**
6	10-12	=COMWGT!B66*CONFIG!$U$3	=COMWGT!C66*CONFIG!$U$4	=COMWGT!D66*CONFIG!$U$5	=COMWGT!F66*CONFIG!$U$7	=COMWGT!G66*CONFIG!$U$8	=COMWGT!H66*CONFIG!$U$9	=COMWGT!J66*CONFIG!$U$11	=COMWGT!K66*CONFIG!$U$12	=COMWGT!L66*CONFIG!$U$13	=SUM(B6:J6)	**=K6/SUM($K$4:$K$26)**
7	12-14	=COMWGT!B67*CONFIG!$U$3	=COMWGT!C67*CONFIG!$U$4	=COMWGT!D67*CONFIG!$U$5	=COMWGT!F67*CONFIG!$U$7	=COMWGT!G67*CONFIG!$U$8	=COMWGT!H67*CONFIG!$U$9	=COMWGT!J67*CONFIG!$U$11	=COMWGT!K67*CONFIG!$U$12	=COMWGT!L67*CONFIG!$U$13	=SUM(B7:J7)	**=K7/SUM($K$4:$K$26)**
8	14-16	=COMWGT!B68*CONFIG!$U$3	=COMWGT!C68*CONFIG!$U$4	=COMWGT!D68*CONFIG!$U$5	=COMWGT!F68*CONFIG!$U$7	=COMWGT!G68*CONFIG!$U$8	=COMWGT!H68*CONFIG!$U$9	=COMWGT!J68*CONFIG!$U$11	=COMWGT!K68*CONFIG!$U$12	=COMWGT!L68*CONFIG!$U$13	=SUM(B8:J8)	**=K8/SUM($K$4:$K$26)**
9	16-18	=COMWGT!B69*CONFIG!$U$3	=COMWGT!C69*CONFIG!$U$4	=COMWGT!D69*CONFIG!$U$5	=COMWGT!F69*CONFIG!$U$7	=COMWGT!G69*CONFIG!$U$8	=COMWGT!H69*CONFIG!$U$9	=COMWGT!J69*CONFIG!$U$11	=COMWGT!K69*CONFIG!$U$12	=COMWGT!L69*CONFIG!$U$13	=SUM(B9:J9)	**=K9/SUM($K$4:$K$26)**
10	18-20	=COMWGT!B70*CONFIG!$U$3	=COMWGT!C70*CONFIG!$U$4	=COMWGT!D70*CONFIG!$U$5	=COMWGT!F70*CONFIG!$U$7	=COMWGT!G70*CONFIG!$U$8	=COMWGT!H70*CONFIG!$U$9	=COMWGT!J70*CONFIG!$U$11	=COMWGT!K70*CONFIG!$U$12	=COMWGT!L70*CONFIG!$U$13	=SUM(B10:J10)	**=K10/SUM($K$4:$K$26)**
11	20-22	=COMWGT!B71*CONFIG!$U$3	=COMWGT!C71*CONFIG!$U$4	=COMWGT!D71*CONFIG!$U$5	=COMWGT!F71*CONFIG!$U$7	=COMWGT!G71*CONFIG!$U$8	=COMWGT!H71*CONFIG!$U$9	=COMWGT!J71*CONFIG!$U$11	=COMWGT!K71*CONFIG!$U$12	=COMWGT!L71*CONFIG!$U$13	=SUM(B11:J11)	**=K11/SUM($K$4:$K$26)**
12	22-24	=COMWGT!B72*CONFIG!$U$3	=COMWGT!C72*CONFIG!$U$4	=COMWGT!D72*CONFIG!$U$5	=COMWGT!F72*CONFIG!$U$7	=COMWGT!G72*CONFIG!$U$8	=COMWGT!H72*CONFIG!$U$9	=COMWGT!J72*CONFIG!$U$11	=COMWGT!K72*CONFIG!$U$12	=COMWGT!L72*CONFIG!$U$13	=SUM(B12:J12)	**=K12/SUM($K$4:$K$26)**
13	24-26	=COMWGT!B73*CONFIG!$U$3	=COMWGT!C73*CONFIG!$U$4	=COMWGT!D73*CONFIG!$U$5	=COMWGT!F73*CONFIG!$U$7	=COMWGT!G73*CONFIG!$U$8	=COMWGT!H73*CONFIG!$U$9	=COMWGT!J73*CONFIG!$U$11	=COMWGT!K73*CONFIG!$U$12	=COMWGT!L73*CONFIG!$U$13	=SUM(B13:J13)	**=K13/SUM($K$4:$K$26)**
14	26-28	=COMWGT!B74*CONFIG!$U$3	=COMWGT!C74*CONFIG!$U$4	=COMWGT!D74*CONFIG!$U$5	=COMWGT!F74*CONFIG!$U$7	=COMWGT!G74*CONFIG!$U$8	=COMWGT!H74*CONFIG!$U$9	=COMWGT!J74*CONFIG!$U$11	=COMWGT!K74*CONFIG!$U$12	=COMWGT!L74*CONFIG!$U$13	=SUM(B14:J14)	**=K14/SUM($K$4:$K$26)**
15	28-30	=COMWGT!B75*CONFIG!$U$3	=COMWGT!C75*CONFIG!$U$4	=COMWGT!D75*CONFIG!$U$5	=COMWGT!F75*CONFIG!$U$7	=COMWGT!G75*CONFIG!$U$8	=COMWGT!H75*CONFIG!$U$9	=COMWGT!J75*CONFIG!$U$11	=COMWGT!K75*CONFIG!$U$12	=COMWGT!L75*CONFIG!$U$13	=SUM(B15:J15)	**=K15/SUM($K$4:$K$26)**
16	30-32	=COMWGT!B76*CONFIG!$U$3	=COMWGT!C76*CONFIG!$U$4	=COMWGT!D76*CONFIG!$U$5	=COMWGT!F76*CONFIG!$U$7	=COMWGT!G76*CONFIG!$U$8	=COMWGT!H76*CONFIG!$U$9	=COMWGT!J76*CONFIG!$U$11	=COMWGT!K76*CONFIG!$U$12	=COMWGT!L76*CONFIG!$U$13	=SUM(B16:J16)	**=K16/SUM($K$4:$K$26)**
17	32-36	=COMWGT!B77*CONFIG!$U$3	=COMWGT!C77*CONFIG!$U$4	=COMWGT!D77*CONFIG!$U$5	=COMWGT!F77*CONFIG!$U$7	=COMWGT!G77*CONFIG!$U$8	=COMWGT!H77*CONFIG!$U$9	=COMWGT!J77*CONFIG!$U$11	=COMWGT!K77*CONFIG!$U$12	=COMWGT!L77*CONFIG!$U$13	=SUM(B17:J17)	**=K17/SUM($K$4:$K$26)**
18	36-40	=COMWGT!B78*CONFIG!$U$3	=COMWGT!C78*CONFIG!$U$4	=COMWGT!D78*CONFIG!$U$5	=COMWGT!F78*CONFIG!$U$7	=COMWGT!G78*CONFIG!$U$8	=COMWGT!H78*CONFIG!$U$9	=COMWGT!J78*CONFIG!$U$11	=COMWGT!K78*CONFIG!$U$12	=COMWGT!L78*CONFIG!$U$13	=SUM(B18:J18)	**=K18/SUM($K$4:$K$26)**

FED FEES

	A	B	C	D	E	F	G	H	I	J	K	L
19	40-45	=COMWGT!B79*CONFIG!$U$3	=COMWGT!C79*CONFIG!$U$4	=COMWGT!D79*CONFIG!$U$5	=COMWGT!F79*CONFIG!$U$7	=COMWGT!G79*CONFIG!$U$8	=COMWGT!H79*CONFIG!$U$9	=COMWGT!J79*CONFIG!$U$11	=COMWGT!K79*CONFIG!$U$12	=COMWGT!L79*CONFIG!$U$13	=SUM(B19:J19)	**=K19/SUM($K$4:$K$26)**
20	45-50	=COMWGT!B80*CONFIG!$U$3	=COMWGT!C80*CONFIG!$U$4	=COMWGT!D80*CONFIG!$U$5	=COMWGT!F80*CONFIG!$U$7	=COMWGT!G80*CONFIG!$U$8	=COMWGT!H80*CONFIG!$U$9	=COMWGT!J80*CONFIG!$U$11	=COMWGT!K80*CONFIG!$U$12	=COMWGT!L80*CONFIG!$U$13	=SUM(B20:J20)	**=K20/SUM($K$4:$K$26)**
21	50-55	=COMWGT!B81*CONFIG!$U$3	=COMWGT!C81*CONFIG!$U$4	=COMWGT!D81*CONFIG!$U$5	=COMWGT!F81*CONFIG!$U$7	=COMWGT!G81*CONFIG!$U$8	=COMWGT!H81*CONFIG!$U$9	=COMWGT!J81*CONFIG!$U$11	=COMWGT!K81*CONFIG!$U$12	=COMWGT!L81*CONFIG!$U$13	=SUM(B21:J21)	**=K21/SUM($K$4:$K$26)**
22	55-60	=COMWGT!B82*CONFIG!$U$3	=COMWGT!C82*CONFIG!$U$4	=COMWGT!D82*CONFIG!$U$5	=COMWGT!F82*CONFIG!$U$7	=COMWGT!G82*CONFIG!$U$8	=COMWGT!H82*CONFIG!$U$9	=COMWGT!J82*CONFIG!$U$11	=COMWGT!K82*CONFIG!$U$12	=COMWGT!L82*CONFIG!$U$13	=SUM(B22:J22)	**=K22/SUM($K$4:$K$26)**
23	60-65	=COMWGT!B83*CONFIG!$U$3	=COMWGT!C83*CONFIG!$U$4	=COMWGT!D83*CONFIG!$U$5	=COMWGT!F83*CONFIG!$U$7	=COMWGT!G83*CONFIG!$U$8	=COMWGT!H83*CONFIG!$U$9	=COMWGT!J83*CONFIG!$U$11	=COMWGT!K83*CONFIG!$U$12	=COMWGT!L83*CONFIG!$U$13	=SUM(B23:J23)	**=K23/SUM($K$4:$K$26)**
24	65-70	=COMWGT!B84*CONFIG!$U$3	=COMWGT!C84*CONFIG!$U$4	=COMWGT!D84*CONFIG!$U$5	=COMWGT!F84*CONFIG!$U$7	=COMWGT!G84*CONFIG!$U$8	=COMWGT!H84*CONFIG!$U$9	=COMWGT!J84*CONFIG!$U$11	=COMWGT!K84*CONFIG!$U$12	=COMWGT!L84*CONFIG!$U$13	=SUM(B24:J24)	**=K24/SUM($K$4:$K$26)**
25	70-75	=COMWGT!B85*CONFIG!$U$3	=COMWGT!C85*CONFIG!$U$4	=COMWGT!D85*CONFIG!$U$5	=COMWGT!F85*CONFIG!$U$7	=COMWGT!G85*CONFIG!$U$8	=COMWGT!H85*CONFIG!$U$9	=COMWGT!J85*CONFIG!$U$11	=COMWGT!K85*CONFIG!$U$12	=COMWGT!L85*CONFIG!$U$13	=SUM(B25:J25)	**=K25/SUM($K$4:$K$26)**
26	75-80	=COMWGT!B86*CONFIG!$U$3	=COMWGT!C86*CONFIG!$U$4	=COMWGT!D86*CONFIG!$U$5	=COMWGT!F86*CONFIG!$U$7	=COMWGT!G86*CONFIG!$U$8	=COMWGT!H86*CONFIG!$U$9	=COMWGT!J86*CONFIG!$U$11	=COMWGT!K86*CONFIG!$U$12	=COMWGT!L86*CONFIG!$U$13	=SUM(B26:J26)	**=K26/SUM($K$4:$K$26)**
27	Total	=SUM(B4:B26)	=SUM(C4:C26)	=SUM(D4:D26)	=SUM(E4:E26)	=SUM(F4:F26)	=SUM(G4:G26)	=SUM(H4:H26)	=SUM(I4:I26)	=SUM(J4:J26)		**=SUM(L4:L26)**
28	ADJ Total	=B27/SUM($B$27:$J$27)	=C27/SUM($B$27:$J$27)	=D27/SUM($B$27:$J$27)	=E27/SUM($B$27:$J$27)	=F27/SUM($B$27:$J$27)	=G27/SUM($B$27:$J$27)	=H27/SUM($B$27:$J$27)	=I27/SUM($B$27:$J$27)	=J27/SUM($B$27:$J$27)		
29												
30												
31												
32	**Federal Tax Estimates**											
33	(Thousands of Dollars)											
34	**Tax**	**Average Collections for Five-Year Period Ended:**				**Avg Coll**	**Growth Rate**					
35		**1993**	**1997**									
36	Sales Tax	=(37009+16323)/2	32159			=AVERAGE(B36:E36)	=MAX((C36/B36)^(1/($C$35-$B$35)),1)					
37	Use Tax	=(12561+8959)/2	14631			=AVERAGE(B37:E37)	=MAX((C37/B37)^(1/($C$35-$B$35)),1)					
38	Tire Tax	=(7285+5564)/2	5757			=AVERAGE(B38:E38)	=MAX((C38/B38)^(1/($C$35-$B$35)),1)					

FED FEES

	M	N	O	P	Q	R	S
1		Federal Sales Tax Allocation Factors (Commercial Truck)					
2		WGT	Base Scale		Trailer ADJ		Alloc. Factor
3			SU	CMB	SU	CMB	
4		0-8	='TRK VAL'!Z3	='TRK VAL'!AA3	=(O4*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+0	=(P4*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+((P4/SUM($P$4:$P$26))*('VLT ADJ'!$D$36/'VLT ADJ'!$D$34))	=SUM(Q4:R4)
5		8-10	='TRK VAL'!Z4	='TRK VAL'!AA4	=(O5*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+0	=(P5*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+((P5/SUM($P$4:$P$26))*('VLT ADJ'!$D$36/'VLT ADJ'!$D$34))	=SUM(Q5:R5)
6		10-12	='TRK VAL'!Z5	='TRK VAL'!AA5	=(O6*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+0	=(P6*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+((P6/SUM($P$4:$P$26))*('VLT ADJ'!$D$36/'VLT ADJ'!$D$34))	=SUM(Q6:R6)
7		12-14	='TRK VAL'!Z6	='TRK VAL'!AA6	=(O7*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+0	=(P7*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+((P7/SUM($P$4:$P$26))*('VLT ADJ'!$D$36/'VLT ADJ'!$D$34))	=SUM(Q7:R7)
8		14-16	='TRK VAL'!Z7	='TRK VAL'!AA7	=(O8*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+0	=(P8*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+((P8/SUM($P$4:$P$26))*('VLT ADJ'!$D$36/'VLT ADJ'!$D$34))	=SUM(Q8:R8)
9		16-18	='TRK VAL'!Z8	='TRK VAL'!AA8	=(O9*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+0	=(P9*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+((P9/SUM($P$4:$P$26))*('VLT ADJ'!$D$36/'VLT ADJ'!$D$34))	=SUM(Q9:R9)
10		18-20	='TRK VAL'!Z9	='TRK VAL'!AA9	=(O10*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+0	=(P10*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+((P10/SUM($P$4:$P$26))*('VLT ADJ'!$D$36/'VLT ADJ'!$D$34))	=SUM(Q10:R10)
11		20-22	='TRK VAL'!Z10	='TRK VAL'!AA10	=(O11*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+0	=(P11*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+((P11/SUM($P$4:$P$26))*('VLT ADJ'!$D$36/'VLT ADJ'!$D$34))	=SUM(Q11:R11)
12		22-24	='TRK VAL'!Z11	='TRK VAL'!AA11	=(O12*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+0	=(P12*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+((P12/SUM($P$4:$P$26))*('VLT ADJ'!$D$36/'VLT ADJ'!$D$34))	=SUM(Q12:R12)
13		24-26	='TRK VAL'!Z12	='TRK VAL'!AA12	=(O13*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+0	=(P13*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+((P13/SUM($P$4:$P$26))*('VLT ADJ'!$D$36/'VLT ADJ'!$D$34))	=SUM(Q13:R13)
14		26-28	='TRK VAL'!Z13	='TRK VAL'!AA13	=(O14*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+0	=(P14*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+((P14/SUM($P$4:$P$26))*('VLT ADJ'!$D$36/'VLT ADJ'!$D$34))	=SUM(Q14:R14)
15		28-30	='TRK VAL'!Z14	='TRK VAL'!AA14	=(O15*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+0	=(P15*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+((P15/SUM($P$4:$P$26))*('VLT ADJ'!$D$36/'VLT ADJ'!$D$34))	=SUM(Q15:R15)
16		30-32	='TRK VAL'!Z15	='TRK VAL'!AA15	=(O16*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+0	=(P16*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+((P16/SUM($P$4:$P$26))*('VLT ADJ'!$D$36/'VLT ADJ'!$D$34))	=SUM(Q16:R16)
17		32-36	='TRK VAL'!Z16	='TRK VAL'!AA16	=(O17*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+0	=(P17*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+((P17/SUM($P$4:$P$26))*('VLT ADJ'!$D$36/'VLT ADJ'!$D$34))	=SUM(Q17:R17)
18		36-40	='TRK VAL'!Z17	='TRK VAL'!AA17	=(O18*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+0	=(P18*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+((P18/SUM($P$4:$P$26))*('VLT ADJ'!$D$36/'VLT ADJ'!$D$34))	=SUM(Q18:R18)
19		40-45	='TRK VAL'!Z18	='TRK VAL'!AA18	=(O19*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+0	=(P19*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+((P19/SUM($P$4:$P$26))*('VLT ADJ'!$D$36/'VLT ADJ'!$D$34))	=SUM(Q19:R19)
20		45-50	='TRK VAL'!Z19	='TRK VAL'!AA19	=(O20*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+0	=(P20*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+((P20/SUM($P$4:$P$26))*('VLT ADJ'!$D$36/'VLT ADJ'!$D$34))	=SUM(Q20:R20)
21		50-55	='TRK VAL'!Z20	='TRK VAL'!AA20	=(O21*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+0	=(P21*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+((P21/SUM($P$4:$P$26))*('VLT ADJ'!$D$36/'VLT ADJ'!$D$34))	=SUM(Q21:R21)
22		55-60	='TRK VAL'!Z21	='TRK VAL'!AA21	=(O22*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+0	=(P22*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+((P22/SUM($P$4:$P$26))*('VLT ADJ'!$D$36/'VLT ADJ'!$D$34))	=SUM(Q22:R22)
23		60-65	='TRK VAL'!Z22	='TRK VAL'!AA22	=(O23*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+0	=(P23*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+((P23/SUM($P$4:$P$26))*('VLT ADJ'!$D$36/'VLT ADJ'!$D$34))	=SUM(Q23:R23)
24		65-70	='TRK VAL'!Z23	='TRK VAL'!AA23	=(O24*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+0	=(P24*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+((P24/SUM($P$4:$P$26))*('VLT ADJ'!$D$36/'VLT ADJ'!$D$34))	=SUM(Q24:R24)
25		70-75	='TRK VAL'!Z24	='TRK VAL'!AA24	=(O25*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+0	=(P25*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+((P25/SUM($P$4:$P$26))*('VLT ADJ'!$D$36/'VLT ADJ'!$D$34))	=SUM(Q25:R25)
26		75-80	='TRK VAL'!Z25	='TRK VAL'!AA25	=(O26*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+0	=(P26*('VLT ADJ'!$D$35/'VLT ADJ'!$D$34))+((P26/SUM($P$4:$P$26))*('VLT ADJ'!$D$36/'VLT ADJ'!$D$34))	=SUM(Q26:R26)
27					=SUM(Q4:Q26)	=SUM(R4:R26)	=SUM(S4:S26)

FED FEES

	T	U	V	X	Y	Z	AA	AB	AC	AD
1		**Federal Use Fees**								
2		**RGW**	**SU REG**	**CMB REG**	**Default Fees**	**Scaled Fees**	**SU ADJ**	**CMB ADJ**	**SU Alloc**	**CMB Alloc**
3										
4		55-60	=REG!I49/SUM(REG!$K$49:$K$53)	=REG!J49/SUM(REG!$K$49:$K$53)	=100+(22*(57.5-55))	=X4/SUM($X$4:$X$8)	=$Y4*V4	=$Y4*W4	=Z4/SUM($Z$4:$AA$8)	=AA4/SUM($Z$4:$AA$8)
5		60-65	=REG!I50/SUM(REG!$K$49:$K$53)	=REG!J50/SUM(REG!$K$49:$K$53)	=100+(22*(62.5-55))	=X5/SUM($X$4:$X$8)	=$Y5*V5	=$Y5*W5	=Z5/SUM($Z$4:$AA$8)	=AA5/SUM($Z$4:$AA$8)
6		65-70	=REG!I51/SUM(REG!$K$49:$K$53)	=REG!J51/SUM(REG!$K$49:$K$53)	=100+(22*(67.5-55))	=X6/SUM($X$4:$X$8)	=$Y6*V6	=$Y6*W6	=Z6/SUM($Z$4:$AA$8)	=AA6/SUM($Z$4:$AA$8)
7		70-75	=REG!I52/SUM(REG!$K$49:$K$53)	=REG!J52/SUM(REG!$K$49:$K$53)	=100+(22*(72.5-55))	=X7/SUM($X$4:$X$8)	=$Y7*V7	=$Y7*W7	=Z7/SUM($Z$4:$AA$8)	=AA7/SUM($Z$4:$AA$8)
8		75-80	=REG!I53/SUM(REG!$K$49:$K$53)	=REG!J53/SUM(REG!$K$49:$K$53)	550	=X8/SUM($X$4:$X$8)	=$Y8*V8	=$Y8*W8	=Z8/SUM($Z$4:$AA$8)	=AA8/SUM($Z$4:$AA$8)
9		**Total Allocation by Vehicle Class:**							=SUM(AB4:AB8)	=SUM(AC4:AC8)

ESAL ADJ

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	**Rural Traffic Weighted by ESAL Coefficients**												
2	**WGT**	**Autos**	**Pick-ups**	**Buses**	**SU**			**CMB Single Trailer**			**CMB Multi-trailer**		
3					**2A 6T**	**3A**	**4A**	**CS 4A**	**CS 5A**	**CS 6A**	**CM 5A**	**CM 6A**	**CM 7A**
4	0-8	='RTRAFWGT'!B4*CONFIG!B18	='RTRAFWGT'!C4*CONFIG!C18	='RTRAFWGT'!D4*CONFIG!D18	='RTRAFWGT'!E4*CONFIG!E18	='RTRAFWGT'!F4*CONFIG!F18	='RTRAFWGT'!G4*CONFIG!G18	='RTRAFWGT'!H4*CONFIG!H18	='RTRAFWGT'!I4*CONFIG!I18	='RTRAFWGT'!J4*CONFIG!J18	='RTRAFWGT'!K4*CONFIG!K18	='RTRAFWGT'!L4*CONFIG!L18	='RTRAFWGT'!M4*CONFIG!M18
5	8-10	='RTRAFWGT'!B5*CONFIG!B19	='RTRAFWGT'!C5*CONFIG!C19	='RTRAFWGT'!D5*CONFIG!D19	='RTRAFWGT'!E5*CONFIG!E19	='RTRAFWGT'!F5*CONFIG!F19	='RTRAFWGT'!G5*CONFIG!G19	='RTRAFWGT'!H5*CONFIG!H19	='RTRAFWGT'!I5*CONFIG!I19	='RTRAFWGT'!J5*CONFIG!J19	='RTRAFWGT'!K5*CONFIG!K19	='RTRAFWGT'!L5*CONFIG!L19	='RTRAFWGT'!M5*CONFIG!M19
6	10-12	='RTRAFWGT'!B6*CONFIG!B20	='RTRAFWGT'!C6*CONFIG!C20	='RTRAFWGT'!D6*CONFIG!D20	='RTRAFWGT'!E6*CONFIG!E20	='RTRAFWGT'!F6*CONFIG!F20	='RTRAFWGT'!G6*CONFIG!G20	='RTRAFWGT'!H6*CONFIG!H20	='RTRAFWGT'!I6*CONFIG!I20	='RTRAFWGT'!J6*CONFIG!J20	='RTRAFWGT'!K6*CONFIG!K20	='RTRAFWGT'!L6*CONFIG!L20	='RTRAFWGT'!M6*CONFIG!M20
7	12-14	='RTRAFWGT'!B7*CONFIG!B21	='RTRAFWGT'!C7*CONFIG!C21	='RTRAFWGT'!D7*CONFIG!D21	='RTRAFWGT'!E7*CONFIG!E21	='RTRAFWGT'!F7*CONFIG!F21	='RTRAFWGT'!G7*CONFIG!G21	='RTRAFWGT'!H7*CONFIG!H21	='RTRAFWGT'!I7*CONFIG!I21	='RTRAFWGT'!J7*CONFIG!J21	='RTRAFWGT'!K7*CONFIG!K21	='RTRAFWGT'!L7*CONFIG!L21	='RTRAFWGT'!M7*CONFIG!M21
8	14-16	='RTRAFWGT'!B8*CONFIG!B22	='RTRAFWGT'!C8*CONFIG!C22	='RTRAFWGT'!D8*CONFIG!D22	='RTRAFWGT'!E8*CONFIG!E22	='RTRAFWGT'!F8*CONFIG!F22	='RTRAFWGT'!G8*CONFIG!G22	='RTRAFWGT'!H8*CONFIG!H22	='RTRAFWGT'!I8*CONFIG!I22	='RTRAFWGT'!J8*CONFIG!J22	='RTRAFWGT'!K8*CONFIG!K22	='RTRAFWGT'!L8*CONFIG!L22	='RTRAFWGT'!M8*CONFIG!M22
9	16-18	='RTRAFWGT'!B9*CONFIG!B23	='RTRAFWGT'!C9*CONFIG!C23	='RTRAFWGT'!D9*CONFIG!D23	='RTRAFWGT'!E9*CONFIG!E23	='RTRAFWGT'!F9*CONFIG!F23	='RTRAFWGT'!G9*CONFIG!G23	='RTRAFWGT'!H9*CONFIG!H23	='RTRAFWGT'!I9*CONFIG!I23	='RTRAFWGT'!J9*CONFIG!J23	='RTRAFWGT'!K9*CONFIG!K23	='RTRAFWGT'!L9*CONFIG!L23	='RTRAFWGT'!M9*CONFIG!M23
10	18-20	='RTRAFWGT'!B10*CONFIG!B24	='RTRAFWGT'!C10*CONFIG!C24	='RTRAFWGT'!D10*CONFIG!D24	='RTRAFWGT'!E10*CONFIG!E24	='RTRAFWGT'!F10*CONFIG!F24	='RTRAFWGT'!G10*CONFIG!G24	='RTRAFWGT'!H10*CONFIG!H24	='RTRAFWGT'!I10*CONFIG!I24	='RTRAFWGT'!J10*CONFIG!J24	='RTRAFWGT'!K10*CONFIG!K24	='RTRAFWGT'!L10*CONFIG!L24	='RTRAFWGT'!M10*CONFIG!M24
11	20-22	='RTRAFWGT'!B11*CONFIG!B25	='RTRAFWGT'!C11*CONFIG!C25	='RTRAFWGT'!D11*CONFIG!D25	='RTRAFWGT'!E11*CONFIG!E25	='RTRAFWGT'!F11*CONFIG!F25	='RTRAFWGT'!G11*CONFIG!G25	='RTRAFWGT'!H11*CONFIG!H25	='RTRAFWGT'!I11*CONFIG!I25	='RTRAFWGT'!J11*CONFIG!J25	='RTRAFWGT'!K11*CONFIG!K25	='RTRAFWGT'!L11*CONFIG!L25	='RTRAFWGT'!M11*CONFIG!M25

ESAL ADJ

	A	B	C	D	E	F	G	H	I	J	K	L	M
12	22-24	='RTRAFWGT'!B12*CONFIG!B26	='RTRAFWGT'!C12*CONFIG!C26	='RTRAFWGT'!D12*CONFIG!D26	='RTRAFWGT'!E12*CONFIG!E26	='RTRAFWGT'!F12*CONFIG!F26	='RTRAFWGT'!G12*CONFIG!G26	='RTRAFWGT'!H12*CONFIG!H26	='RTRAFWGT'!I12*CONFIG!I26	='RTRAFWGT'!J12*CONFIG!J26	='RTRAFWGT'!K12*CONFIG!K26	='RTRAFWGT'!L12*CONFIG!L26	='RTRAFWGT'!M12*CONFIG!M26
13	24-26	='RTRAFWGT'!B13*CONFIG!B27	='RTRAFWGT'!C13*CONFIG!C27	='RTRAFWGT'!D13*CONFIG!D27	='RTRAFWGT'!E13*CONFIG!E27	='RTRAFWGT'!F13*CONFIG!F27	='RTRAFWGT'!G13*CONFIG!G27	='RTRAFWGT'!H13*CONFIG!H27	='RTRAFWGT'!I13*CONFIG!I27	='RTRAFWGT'!J13*CONFIG!J27	='RTRAFWGT'!K13*CONFIG!K27	='RTRAFWGT'!L13*CONFIG!L27	='RTRAFWGT'!M13*CONFIG!M27
14	26-28	='RTRAFWGT'!B14*CONFIG!B28	='RTRAFWGT'!C14*CONFIG!C28	='RTRAFWGT'!D14*CONFIG!D28	='RTRAFWGT'!E14*CONFIG!E28	='RTRAFWGT'!F14*CONFIG!F28	='RTRAFWGT'!G14*CONFIG!G28	='RTRAFWGT'!H14*CONFIG!H28	='RTRAFWGT'!I14*CONFIG!I28	='RTRAFWGT'!J14*CONFIG!J28	='RTRAFWGT'!K14*CONFIG!K28	='RTRAFWGT'!L14*CONFIG!L28	='RTRAFWGT'!M14*CONFIG!M28
15	28-30	='RTRAFWGT'!B15*CONFIG!B29	='RTRAFWGT'!C15*CONFIG!C29	='RTRAFWGT'!D15*CONFIG!D29	='RTRAFWGT'!E15*CONFIG!E29	='RTRAFWGT'!F15*CONFIG!F29	='RTRAFWGT'!G15*CONFIG!G29	='RTRAFWGT'!H15*CONFIG!H29	='RTRAFWGT'!I15*CONFIG!I29	='RTRAFWGT'!J15*CONFIG!J29	='RTRAFWGT'!K15*CONFIG!K29	='RTRAFWGT'!L15*CONFIG!L29	='RTRAFWGT'!M15*CONFIG!M29
16	30-32	='RTRAFWGT'!B16*CONFIG!B30	='RTRAFWGT'!C16*CONFIG!C30	='RTRAFWGT'!D16*CONFIG!D30	='RTRAFWGT'!E16*CONFIG!E30	='RTRAFWGT'!F16*CONFIG!F30	='RTRAFWGT'!G16*CONFIG!G30	='RTRAFWGT'!H16*CONFIG!H30	='RTRAFWGT'!I16*CONFIG!I30	='RTRAFWGT'!J16*CONFIG!J30	='RTRAFWGT'!K16*CONFIG!K30	='RTRAFWGT'!L16*CONFIG!L30	='RTRAFWGT'!M16*CONFIG!M30
17	32-36	='RTRAFWGT'!B17*CONFIG!B31	='RTRAFWGT'!C17*CONFIG!C31	='RTRAFWGT'!D17*CONFIG!D31	='RTRAFWGT'!E17*CONFIG!E31	='RTRAFWGT'!F17*CONFIG!F31	='RTRAFWGT'!G17*CONFIG!G31	='RTRAFWGT'!H17*CONFIG!H31	='RTRAFWGT'!I17*CONFIG!I31	='RTRAFWGT'!J17*CONFIG!J31	='RTRAFWGT'!K17*CONFIG!K31	='RTRAFWGT'!L17*CONFIG!L31	='RTRAFWGT'!M17*CONFIG!M31
18	36-40	='RTRAFWGT'!B18*CONFIG!B32	='RTRAFWGT'!C18*CONFIG!C32	='RTRAFWGT'!D18*CONFIG!D32	='RTRAFWGT'!E18*CONFIG!E32	='RTRAFWGT'!F18*CONFIG!F32	='RTRAFWGT'!G18*CONFIG!G32	='RTRAFWGT'!H18*CONFIG!H32	='RTRAFWGT'!I18*CONFIG!I32	='RTRAFWGT'!J18*CONFIG!J32	='RTRAFWGT'!K18*CONFIG!K32	='RTRAFWGT'!L18*CONFIG!L32	='RTRAFWGT'!M18*CONFIG!M32
19	40-45	='RTRAFWGT'!B19*CONFIG!B33	='RTRAFWGT'!C19*CONFIG!C33	='RTRAFWGT'!D19*CONFIG!D33	='RTRAFWGT'!E19*CONFIG!E33	='RTRAFWGT'!F19*CONFIG!F33	='RTRAFWGT'!G19*CONFIG!G33	='RTRAFWGT'!H19*CONFIG!H33	='RTRAFWGT'!I19*CONFIG!I33	='RTRAFWGT'!J19*CONFIG!J33	='RTRAFWGT'!K19*CONFIG!K33	='RTRAFWGT'!L19*CONFIG!L33	='RTRAFWGT'!M19*CONFIG!M33
20	45-50	='RTRAFWGT'!B20*CONFIG!B34	='RTRAFWGT'!C20*CONFIG!C34	='RTRAFWGT'!D20*CONFIG!D34	='RTRAFWGT'!E20*CONFIG!E34	='RTRAFWGT'!F20*CONFIG!F34	='RTRAFWGT'!G20*CONFIG!G34	='RTRAFWGT'!H20*CONFIG!H34	='RTRAFWGT'!I20*CONFIG!I34	='RTRAFWGT'!J20*CONFIG!J34	='RTRAFWGT'!K20*CONFIG!K34	='RTRAFWGT'!L20*CONFIG!L34	='RTRAFWGT'!M20*CONFIG!M34
21	50-55	='RTRAFWGT'!B21*CONFIG!B35	='RTRAFWGT'!C21*CONFIG!C35	='RTRAFWGT'!D21*CONFIG!D35	='RTRAFWGT'!E21*CONFIG!E35	='RTRAFWGT'!F21*CONFIG!F35	='RTRAFWGT'!G21*CONFIG!G35	='RTRAFWGT'!H21*CONFIG!H35	='RTRAFWGT'!I21*CONFIG!I35	='RTRAFWGT'!J21*CONFIG!J35	='RTRAFWGT'!K21*CONFIG!K35	='RTRAFWGT'!L21*CONFIG!L35	='RTRAFWGT'!M21*CONFIG!M35
22	55-60	='RTRAFWGT'!B22*CONFIG!B36	='RTRAFWGT'!C22*CONFIG!C36	='RTRAFWGT'!D22*CONFIG!D36	='RTRAFWGT'!E22*CONFIG!E36	='RTRAFWGT'!F22*CONFIG!F36	='RTRAFWGT'!G22*CONFIG!G36	='RTRAFWGT'!H22*CONFIG!H36	='RTRAFWGT'!I22*CONFIG!I36	='RTRAFWGT'!J22*CONFIG!J36	='RTRAFWGT'!K22*CONFIG!K36	='RTRAFWGT'!L22*CONFIG!L36	='RTRAFWGT'!M22*CONFIG!M36
23	60-65	='RTRAFWGT'!B23*CONFIG!B37	='RTRAFWGT'!C23*CONFIG!C37	='RTRAFWGT'!D23*CONFIG!D37	='RTRAFWGT'!E23*CONFIG!E37	='RTRAFWGT'!F23*CONFIG!F37	='RTRAFWGT'!G23*CONFIG!G37	='RTRAFWGT'!H23*CONFIG!H37	='RTRAFWGT'!I23*CONFIG!I37	='RTRAFWGT'!J23*CONFIG!J37	='RTRAFWGT'!K23*CONFIG!K37	='RTRAFWGT'!L23*CONFIG!L37	='RTRAFWGT'!M23*CONFIG!M37
24	65-70	='RTRAFWGT'!B24*CONFIG!B38	='RTRAFWGT'!C24*CONFIG!C38	='RTRAFWGT'!D24*CONFIG!D38	='RTRAFWGT'!E24*CONFIG!E38	='RTRAFWGT'!F24*CONFIG!F38	='RTRAFWGT'!G24*CONFIG!G38	='RTRAFWGT'!H24*CONFIG!H38	='RTRAFWGT'!I24*CONFIG!I38	='RTRAFWGT'!J24*CONFIG!J38	='RTRAFWGT'!K24*CONFIG!K38	='RTRAFWGT'!L24*CONFIG!L38	='RTRAFWGT'!M24*CONFIG!M38
25	70-75	='RTRAFWGT'!B25*CONFIG!B39	='RTRAFWGT'!C25*CONFIG!C39	='RTRAFWGT'!D25*CONFIG!D39	='RTRAFWGT'!E25*CONFIG!E39	='RTRAFWGT'!F25*CONFIG!F39	='RTRAFWGT'!G25*CONFIG!G39	='RTRAFWGT'!H25*CONFIG!H39	='RTRAFWGT'!I25*CONFIG!I39	='RTRAFWGT'!J25*CONFIG!J39	='RTRAFWGT'!K25*CONFIG!K39	='RTRAFWGT'!L25*CONFIG!L39	='RTRAFWGT'!M25*CONFIG!M39
26	75-80	='RTRAFWGT'!B26*CONFIG!B40	='RTRAFWGT'!C26*CONFIG!C40	='RTRAFWGT'!D26*CONFIG!D40	='RTRAFWGT'!E26*CONFIG!E40	='RTRAFWGT'!F26*CONFIG!F40	='RTRAFWGT'!G26*CONFIG!G40	='RTRAFWGT'!H26*CONFIG!H40	='RTRAFWGT'!I26*CONFIG!I40	='RTRAFWGT'!J26*CONFIG!J40	='RTRAFWGT'!K26*CONFIG!K40	='RTRAFWGT'!L26*CONFIG!L40	='RTRAFWGT'!M26*CONFIG!M40
27	**Total**	=SUM(B4:B26)	=SUM(C4:C26)	=SUM(D4:D26)	=SUM(E4:E26)	=SUM(F4:F26)	=SUM(G4:G26)	=SUM(H4:H26)	=SUM(I4:I26)	=SUM(J4:J26)	=SUM(K4:K26)	=SUM(L4:L26)	=SUM(M4:M26)
28													

ESAL ADJ

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	**Adjusted Proportion of Rural Traffic Weighted by ESAL Coefficients**												
2		**Autos**	**Pick-ups**	**Buses**	**SU**			**CMB Single Trailer**			**CMB Multi-trailer**		
3					**2A 6T**	**3A**	**4A**	**CS 4A**	**CS 5A**	**CS 6A**	**CM 5A**	**CM 6A**	**CM 7A**
4	0-8	=B4*(1/SUM($B$27:$M$27))	=C4*(1/SUM($B$27:$M$27))	=D4*(1/SUM($B$27:$M$27))	=E4*(1/SUM($B$27:$M$27))	=F4*(1/SUM($B$27:$M$27))	=G4*(1/SUM($B$27:$M$27))	=H4*(1/SUM($B$27:$M$27))	=I4*(1/SUM($B$27:$M$27))	=J4*(1/SUM($B$27:$M$27))	=K4*(1/SUM($B$27:$M$27))	=L4*(1/SUM($B$27:$M$27))	=M4*(1/SUM($B$27:$M$27))
5	8-10	=B5*(1/SUM($B$27:$M$27))	=C5*(1/SUM($B$27:$M$27))	=D5*(1/SUM($B$27:$M$27))	=E5*(1/SUM($B$27:$M$27))	=F5*(1/SUM($B$27:$M$27))	=G5*(1/SUM($B$27:$M$27))	=H5*(1/SUM($B$27:$M$27))	=I5*(1/SUM($B$27:$M$27))	=J5*(1/SUM($B$27:$M$27))	=K5*(1/SUM($B$27:$M$27))	=L5*(1/SUM($B$27:$M$27))	=M5*(1/SUM($B$27:$M$27))
6	10-12	=B6*(1/SUM($B$27:$M$27))	=C6*(1/SUM($B$27:$M$27))	=D6*(1/SUM($B$27:$M$27))	=E6*(1/SUM($B$27:$M$27))	=F6*(1/SUM($B$27:$M$27))	=G6*(1/SUM($B$27:$M$27))	=H6*(1/SUM($B$27:$M$27))	=I6*(1/SUM($B$27:$M$27))	=J6*(1/SUM($B$27:$M$27))	=K6*(1/SUM($B$27:$M$27))	=L6*(1/SUM($B$27:$M$27))	=M6*(1/SUM($B$27:$M$27))
7	12-14	=B7*(1/SUM($B$27:$M$27))	=C7*(1/SUM($B$27:$M$27))	=D7*(1/SUM($B$27:$M$27))	=E7*(1/SUM($B$27:$M$27))	=F7*(1/SUM($B$27:$M$27))	=G7*(1/SUM($B$27:$M$27))	=H7*(1/SUM($B$27:$M$27))	=I7*(1/SUM($B$27:$M$27))	=J7*(1/SUM($B$27:$M$27))	=K7*(1/SUM($B$27:$M$27))	=L7*(1/SUM($B$27:$M$27))	=M7*(1/SUM($B$27:$M$27))
8	14-16	=B8*(1/SUM($B$27:$M$27))	=C8*(1/SUM($B$27:$M$27))	=D8*(1/SUM($B$27:$M$27))	=E8*(1/SUM($B$27:$M$27))	=F8*(1/SUM($B$27:$M$27))	=G8*(1/SUM($B$27:$M$27))	=H8*(1/SUM($B$27:$M$27))	=I8*(1/SUM($B$27:$M$27))	=J8*(1/SUM($B$27:$M$27))	=K8*(1/SUM($B$27:$M$27))	=L8*(1/SUM($B$27:$M$27))	=M8*(1/SUM($B$27:$M$27))
9	16-18	=B9*(1/SUM($B$27:$M$27))	=C9*(1/SUM($B$27:$M$27))	=D9*(1/SUM($B$27:$M$27))	=E9*(1/SUM($B$27:$M$27))	=F9*(1/SUM($B$27:$M$27))	=G9*(1/SUM($B$27:$M$27))	=H9*(1/SUM($B$27:$M$27))	=I9*(1/SUM($B$27:$M$27))	=J9*(1/SUM($B$27:$M$27))	=K9*(1/SUM($B$27:$M$27))	=L9*(1/SUM($B$27:$M$27))	=M9*(1/SUM($B$27:$M$27))
10	18-20	=B10*(1/SUM($B$27:$M$27))	=C10*(1/SUM($B$27:$M$27))	=D10*(1/SUM($B$27:$M$27))	=E10*(1/SUM($B$27:$M$27))	=F10*(1/SUM($B$27:$M$27))	=G10*(1/SUM($B$27:$M$27))	=H10*(1/SUM($B$27:$M$27))	=I10*(1/SUM($B$27:$M$27))	=J10*(1/SUM($B$27:$M$27))	=K10*(1/SUM($B$27:$M$27))	=L10*(1/SUM($B$27:$M$27))	=M10*(1/SUM($B$27:$M$27))
11	20-22	=B11*(1/SUM($B$27:$M$27))	=C11*(1/SUM($B$27:$M$27))	=D11*(1/SUM($B$27:$M$27))	=E11*(1/SUM($B$27:$M$27))	=F11*(1/SUM($B$27:$M$27))	=G11*(1/SUM($B$27:$M$27))	=H11*(1/SUM($B$27:$M$27))	=I11*(1/SUM($B$27:$M$27))	=J11*(1/SUM($B$27:$M$27))	=K11*(1/SUM($B$27:$M$27))	=L11*(1/SUM($B$27:$M$27))	=M11*(1/SUM($B$27:$M$27))
12	22-24	=B12*(1/SUM($B$27:$M$27))	=C12*(1/SUM($B$27:$M$27))	=D12*(1/SUM($B$27:$M$27))	=E12*(1/SUM($B$27:$M$27))	=F12*(1/SUM($B$27:$M$27))	=G12*(1/SUM($B$27:$M$27))	=H12*(1/SUM($B$27:$M$27))	=I12*(1/SUM($B$27:$M$27))	=J12*(1/SUM($B$27:$M$27))	=K12*(1/SUM($B$27:$M$27))	=L12*(1/SUM($B$27:$M$27))	=M12*(1/SUM($B$27:$M$27))
13	24-26	=B13*(1/SUM($B$27:$M$27))	=C13*(1/SUM($B$27:$M$27))	=D13*(1/SUM($B$27:$M$27))	=E13*(1/SUM($B$27:$M$27))	=F13*(1/SUM($B$27:$M$27))	=G13*(1/SUM($B$27:$M$27))	=H13*(1/SUM($B$27:$M$27))	=I13*(1/SUM($B$27:$M$27))	=J13*(1/SUM($B$27:$M$27))	=K13*(1/SUM($B$27:$M$27))	=L13*(1/SUM($B$27:$M$27))	=M13*(1/SUM($B$27:$M$27))
14	26-28	=B14*(1/SUM($B$27:$M$27))	=C14*(1/SUM($B$27:$M$27))	=D14*(1/SUM($B$27:$M$27))	=E14*(1/SUM($B$27:$M$27))	=F14*(1/SUM($B$27:$M$27))	=G14*(1/SUM($B$27:$M$27))	=H14*(1/SUM($B$27:$M$27))	=I14*(1/SUM($B$27:$M$27))	=J14*(1/SUM($B$27:$M$27))	=K14*(1/SUM($B$27:$M$27))	=L14*(1/SUM($B$27:$M$27))	=M14*(1/SUM($B$27:$M$27))
15	28-30	=B15*(1/SUM($B$27:$M$27))	=C15*(1/SUM($B$27:$M$27))	=D15*(1/SUM($B$27:$M$27))	=E15*(1/SUM($B$27:$M$27))	=F15*(1/SUM($B$27:$M$27))	=G15*(1/SUM($B$27:$M$27))	=H15*(1/SUM($B$27:$M$27))	=I15*(1/SUM($B$27:$M$27))	=J15*(1/SUM($B$27:$M$27))	=K15*(1/SUM($B$27:$M$27))	=L15*(1/SUM($B$27:$M$27))	=M15*(1/SUM($B$27:$M$27))
16	30-32	=B16*(1/SUM($B$27:$M$27))	=C16*(1/SUM($B$27:$M$27))	=D16*(1/SUM($B$27:$M$27))	=E16*(1/SUM($B$27:$M$27))	=F16*(1/SUM($B$27:$M$27))	=G16*(1/SUM($B$27:$M$27))	=H16*(1/SUM($B$27:$M$27))	=I16*(1/SUM($B$27:$M$27))	=J16*(1/SUM($B$27:$M$27))	=K16*(1/SUM($B$27:$M$27))	=L16*(1/SUM($B$27:$M$27))	=M16*(1/SUM($B$27:$M$27))
17	32-36	=B17*(1/SUM($B$27:$M$27))	=C17*(1/SUM($B$27:$M$27))	=D17*(1/SUM($B$27:$M$27))	=E17*(1/SUM($B$27:$M$27))	=F17*(1/SUM($B$27:$M$27))	=G17*(1/SUM($B$27:$M$27))	=H17*(1/SUM($B$27:$M$27))	=I17*(1/SUM($B$27:$M$27))	=J17*(1/SUM($B$27:$M$27))	=K17*(1/SUM($B$27:$M$27))	=L17*(1/SUM($B$27:$M$27))	=M17*(1/SUM($B$27:$M$27))
18	36-40	=B18*(1/SUM($B$27:$M$27))	=C18*(1/SUM($B$27:$M$27))	=D18*(1/SUM($B$27:$M$27))	=E18*(1/SUM($B$27:$M$27))	=F18*(1/SUM($B$27:$M$27))	=G18*(1/SUM($B$27:$M$27))	=H18*(1/SUM($B$27:$M$27))	=I18*(1/SUM($B$27:$M$27))	=J18*(1/SUM($B$27:$M$27))	=K18*(1/SUM($B$27:$M$27))	=L18*(1/SUM($B$27:$M$27))	=M18*(1/SUM($B$27:$M$27))

ESAL ADJ

	A	B	C	D	E	F	G	H	I	J	K	L	M
19	40-45	=B19*(1/SUM($B$27:$M$27))	=C19*(1/SUM($B$27:$M$27))	=D19*(1/SUM($B$27:$M$27))	=E19*(1/SUM($B$27:$M$27))	=F19*(1/SUM($B$27:$M$27))	=G19*(1/SUM($B$27:$M$27))	=H19*(1/SUM($B$27:$M$27))	=I19*(1/SUM($B$27:$M$27))	=J19*(1/SUM($B$27:$M$27))	=K19*(1/SUM($B$27:$M$27))	=L19*(1/SUM($B$27:$M$27))	=M19*(1/SUM($B$27:$M$27))
20	45-50	=B20*(1/SUM($B$27:$M$27))	=C20*(1/SUM($B$27:$M$27))	=D20*(1/SUM($B$27:$M$27))	=E20*(1/SUM($B$27:$M$27))	=F20*(1/SUM($B$27:$M$27))	=G20*(1/SUM($B$27:$M$27))	=H20*(1/SUM($B$27:$M$27))	=I20*(1/SUM($B$27:$M$27))	=J20*(1/SUM($B$27:$M$27))	=K20*(1/SUM($B$27:$M$27))	=L20*(1/SUM($B$27:$M$27))	=M20*(1/SUM($B$27:$M$27))
21	50-55	=B21*(1/SUM($B$27:$M$27))	=C21*(1/SUM($B$27:$M$27))	=D21*(1/SUM($B$27:$M$27))	=E21*(1/SUM($B$27:$M$27))	=F21*(1/SUM($B$27:$M$27))	=G21*(1/SUM($B$27:$M$27))	=H21*(1/SUM($B$27:$M$27))	=I21*(1/SUM($B$27:$M$27))	=J21*(1/SUM($B$27:$M$27))	=K21*(1/SUM($B$27:$M$27))	=L21*(1/SUM($B$27:$M$27))	=M21*(1/SUM($B$27:$M$27))
22	55-60	=B22*(1/SUM($B$27:$M$27))	=C22*(1/SUM($B$27:$M$27))	=D22*(1/SUM($B$27:$M$27))	=E22*(1/SUM($B$27:$M$27))	=F22*(1/SUM($B$27:$M$27))	=G22*(1/SUM($B$27:$M$27))	=H22*(1/SUM($B$27:$M$27))	=I22*(1/SUM($B$27:$M$27))	=J22*(1/SUM($B$27:$M$27))	=K22*(1/SUM($B$27:$M$27))	=L22*(1/SUM($B$27:$M$27))	=M22*(1/SUM($B$27:$M$27))
23	60-65	=B23*(1/SUM($B$27:$M$27))	=C23*(1/SUM($B$27:$M$27))	=D23*(1/SUM($B$27:$M$27))	=E23*(1/SUM($B$27:$M$27))	=F23*(1/SUM($B$27:$M$27))	=G23*(1/SUM($B$27:$M$27))	=H23*(1/SUM($B$27:$M$27))	=I23*(1/SUM($B$27:$M$27))	=J23*(1/SUM($B$27:$M$27))	=K23*(1/SUM($B$27:$M$27))	=L23*(1/SUM($B$27:$M$27))	=M23*(1/SUM($B$27:$M$27))
24	65-70	=B24*(1/SUM($B$27:$M$27))	=C24*(1/SUM($B$27:$M$27))	=D24*(1/SUM($B$27:$M$27))	=E24*(1/SUM($B$27:$M$27))	=F24*(1/SUM($B$27:$M$27))	=G24*(1/SUM($B$27:$M$27))	=H24*(1/SUM($B$27:$M$27))	=I24*(1/SUM($B$27:$M$27))	=J24*(1/SUM($B$27:$M$27))	=K24*(1/SUM($B$27:$M$27))	=L24*(1/SUM($B$27:$M$27))	=M24*(1/SUM($B$27:$M$27))
25	70-75	=B25*(1/SUM($B$27:$M$27))	=C25*(1/SUM($B$27:$M$27))	=D25*(1/SUM($B$27:$M$27))	=E25*(1/SUM($B$27:$M$27))	=F25*(1/SUM($B$27:$M$27))	=G25*(1/SUM($B$27:$M$27))	=H25*(1/SUM($B$27:$M$27))	=I25*(1/SUM($B$27:$M$27))	=J25*(1/SUM($B$27:$M$27))	=K25*(1/SUM($B$27:$M$27))	=L25*(1/SUM($B$27:$M$27))	=M25*(1/SUM($B$27:$M$27))
26	75-80	=B26*(1/SUM($B$27:$M$27))	=C26*(1/SUM($B$27:$M$27))	=D26*(1/SUM($B$27:$M$27))	=E26*(1/SUM($B$27:$M$27))	=F26*(1/SUM($B$27:$M$27))	=G26*(1/SUM($B$27:$M$27))	=H26*(1/SUM($B$27:$M$27))	=I26*(1/SUM($B$27:$M$27))	=J26*(1/SUM($B$27:$M$27))	=K26*(1/SUM($B$27:$M$27))	=L26*(1/SUM($B$27:$M$27))	=M26*(1/SUM($B$27:$M$27))
27	**Total**	=SUM(B32:B54)	=SUM(C32:C54)	=SUM(D32:D54)	=SUM(E32:E54)	=SUM(F32:F54)	=SUM(G32:G54)	=SUM(H32:H54)	=SUM(I32:I54)	=SUM(J32:J54)	=SUM(K32:K54)	=SUM(L32:L54)	=SUM(M32:M54)

	O	P
1	**Aggregated Model Input Tables**	
2	**Share of Rural Expenditures**	
3	**Vehicle Class**	**Projected Share**
4		
5	Autos	=B55
6	Pick-ups and SUVs	=C55
7	Buses	=D55
8	Single Unit trucks	=SUM(E55:G55)
9	Combination trucks	=SUM(H55:M55)
10	**Total**	**=SUM(P5:P9)**
11		
12	**Weight Class**	**Projected Share**
13		
14	0 - 8,000 lb.	=SUM(B32:M32)
15	8,000-10,000 lb.	=SUM(B33:M33)
16	10,000-12,000 lb.	=SUM(B34:M34)
17	12,000-14,000 lb.	=SUM(B35:M35)
18	14,000-16,000 lb.	=SUM(B36:M36)

	O	P
19	16,000-18,000 lb.	=SUM(B37:M37)
20	18,000-20,000 lb.	=SUM(B38:M38)
21	20,000-22,000 lb.	=SUM(B39:M39)
22	22,000-24,000 lb.	=SUM(B40:M40)
23	24,000-26,000 lb.	=SUM(B41:M41)
24	26,000-28,000 lb.	=SUM(B42:M42)
25	28,000-30,000 lb.	=SUM(B43:M43)
26	30,000-32,000 lb.	=SUM(B44:M44)
27	32,000-36,000 lb.	=SUM(B45:M45)
28	36,000-40,000 lb.	=SUM(B46:M46)
29	40,000-45,000 lb.	=SUM(B47:M47)
30	45,000-50,000 lb.	=SUM(B48:M48)
31	50,000-55,000 lb.	=SUM(B49:M49)
32	55,000-60,000 lb.	=SUM(B50:M50)
33	60,000-65,000 lb.	=SUM(B51:M51)
34	65,000-70,000 lb.	=SUM(B52:M52)
35	70,000-75,000 lb.	=SUM(B53:M53)
36	75,000-80,000 lb.	=SUM(B54:M54)
37	**Total**	**=SUM(P14:P36)**

REG

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	**HCAS 1990 Registration Report (from MV_SYDEC.dat)**								**Proportion of Registrations by Vehicle Class**				
2	**WGT**	**Autos**	**PU &Vans**	**Buses**	**SU**	**CMB**	**Total**		**Autos**	**PU &Vans**	**Buses**	**SU**	**CMB**
3	0-8	1782157	1151478	0	0	0	=SUM(B3:F3)		=B3/$B$26	=C3/$C$26	=D3/$D$26	=E3/$E$26	=F3/$F$26
4	8-10	0	0	483	17040	68	=SUM(B4:F4)		=B4/$B$26	=C4/$C$26	=D4/$D$26	=E4/$E$26	=F4/$F$26
5	10-12	0	0	537	5234	58	=SUM(B5:F5)		=B5/$B$26	=C5/$C$26	=D5/$D$26	=E5/$E$26	=F5/$F$26
6	12-14	401	496	196	1102	39	=SUM(B6:F6)		=B6/$B$26	=C6/$C$26	=D6/$D$26	=E6/$E$26	=F6/$F$26
7	14-16	0	0	226	2388	36	=SUM(B7:F7)		=B7/$B$26	=C7/$C$26	=D7/$D$26	=E7/$E$26	=F7/$F$26
8	16-18	0	0	276	1703	35	=SUM(B8:F8)		=B8/$B$26	=C8/$C$26	=D8/$D$26	=E8/$E$26	=F8/$F$26
9	18-20	0	0	248	3044	89	=SUM(B9:F9)		=B9/$B$26	=C9/$C$26	=D9/$D$26	=E9/$E$26	=F9/$F$26
10	20-22	0	0	255	807	30	=SUM(B10:F10)		=B10/$B$26	=C10/$C$26	=D10/$D$26	=E10/$E$26	=F10/$F$26
11	22-24	0	0	278	1384	50	=SUM(B11:F11)		=B11/$B$26	=C11/$C$26	=D11/$D$26	=E11/$E$26	=F11/$F$26
12	24-26	0	0	390	4375	367	=SUM(B12:F12)		=B12/$B$26	=C12/$C$26	=D12/$D$26	=E12/$E$26	=F12/$F$26
13	26-28	0	0	453	720	59	=SUM(B13:F13)		=B13/$B$26	=C13/$C$26	=D13/$D$26	=E13/$E$26	=F13/$F$26
14	28-30	0	0	289	809	109	=SUM(B14:F14)		=B14/$B$26	=C14/$C$26	=D14/$D$26	=E14/$E$26	=F14/$F$26
15	30-32	0	0	79	575	72	=SUM(B15:F15)		=B15/$B$26	=C15/$C$26	=D15/$D$26	=E15/$E$26	=F15/$F$26
16	32-36	0	0	303	795	167	=SUM(B16:F16)		=B16/$B$26	=C16/$C$26	=D16/$D$26	=E16/$E$26	=F16/$F$26
17	36-40	0	0	397	408	348	=SUM(B17:F17)		=B17/$B$26	=C17/$C$26	=D17/$D$26	=E17/$E$26	=F17/$F$26
18	40-45	0	0	37	344	255	=SUM(B18:F18)		=B18/$B$26	=C18/$C$26	=D18/$D$26	=E18/$E$26	=F18/$F$26
19	45-50	0	0	0	767	942	=SUM(B19:F19)		=B19/$B$26	=C19/$C$26	=D19/$D$26	=E19/$E$26	=F19/$F$26
20	50-55	0	0	8	1588	866	=SUM(B20:F20)		=B20/$B$26	=C20/$C$26	=D20/$D$26	=E20/$E$26	=F20/$F$26
21	55-60	0	0	0	350	433	=SUM(B21:F21)		=B21/$B$26	=C21/$C$26	=D21/$D$26	=E21/$E$26	=F21/$F$26
22	60-65	0	0	0	411	388	=SUM(B22:F22)		=B22/$B$26	=C22/$C$26	=D22/$D$26	=E22/$E$26	=F22/$F$26
23	65-70	0	0	0	194	266	=SUM(B23:F23)		=B23/$B$26	=C23/$C$26	=D23/$D$26	=E23/$E$26	=F23/$F$26
24	70-75	0	0	0	531	338	=SUM(B24:F24)		=B24/$B$26	=C24/$C$26	=D24/$D$26	=E24/$E$26	=F24/$F$26
25	75-80	0	0	0	767	9055	=SUM(B25:F25)		=B25/$B$26	=C25/$C$26	=D25/$D$26	=E25/$E$26	=F25/$F$26
26	**Total**	=SUM(B3:B25)	=SUM(C3:C25)	=SUM(D3:D25)	=SUM(E3:E25)	=SUM(F3:F25)	=SUM(G3:G25)		=B26/$B$26	=C26/$C$26	=D26/$D$26	=E26/$E$26	=F26/$F$26
27													
28													
29	**Commercial Registration Matrix**					**Share of Weight Class**			**Proportion of Commercial**				
30		**Buses**	**SU**	**CMB**	**Total**	**SU**	**CMB**		**SU**	**CMB**	**Total**		
31	0-8	=D3	=E3	=F3	=SUM(B31:D31)	0	0		0	0	0		
32	8-10	=D4	=E4	=F4	=SUM(B32:D32)	=C32/E32	=D32/E32		=C32/$E$54	=D32/$E$54	=SUM(I32:J32)		
33	10-12	=D5	=E5	=F5	=SUM(B33:D33)	=C33/E33	=D33/E33		=C33/$E$54	=D33/$E$54	=SUM(I33:J33)		
34	12-14	=D6	=E6	=F6	=SUM(B34:D34)	=C34/E34	=D34/E34		=C34/$E$54	=D34/$E$54	=SUM(I34:J34)		
35	14-16	=D7	=E7	=F7	=SUM(B35:D35)	=C35/E35	=D35/E35		=C35/$E$54	=D35/$E$54	=SUM(I35:J35)		
36	16-18	=D8	=E8	=F8	=SUM(B36:D36)	=C36/E36	=D36/E36		=C36/$E$54	=D36/$E$54	=SUM(I36:J36)		
37	18-20	=D9	=E9	=F9	=SUM(B37:D37)	=C37/E37	=D37/E37		=C37/$E$54	=D37/$E$54	=SUM(I37:J37)		
38	20-22	=D10	=E10	=F10	=SUM(B38:D38)	=C38/E38	=D38/E38		=C38/$E$54	=D38/$E$54	=SUM(I38:J38)		
39	22-24	=D11	=E11	=F11	=SUM(B39:D39)	=C39/E39	=D39/E39		=C39/$E$54	=D39/$E$54	=SUM(I39:J39)		
40	24-26	=D12	=E12	=F12	=SUM(B40:D40)	=C40/E40	=D40/E40		=C40/$E$54	=D40/$E$54	=SUM(I40:J40)		
41	26-28	=D13	=E13	=F13	=SUM(B41:D41)	=C41/E41	=D41/E41		=C41/$E$54	=D41/$E$54	=SUM(I41:J41)		
42	28-30	=D14	=E14	=F14	=SUM(B42:D42)	=C42/E42	=D42/E42		=C42/$E$54	=D42/$E$54	=SUM(I42:J42)		
43	30-32	=D15	=E15	=F15	=SUM(B43:D43)	=C43/E43	=D43/E43		=C43/$E$54	=D43/$E$54	=SUM(I43:J43)		
44	32-36	=D16	=E16	=F16	=SUM(B44:D44)	=C44/E44	=D44/E44		=C44/$E$54	=D44/$E$54	=SUM(I44:J44)		
45	36-40	=D17	=E17	=F17	=SUM(B45:D45)	=C45/E45	=D45/E45		=C45/$E$54	=D45/$E$54	=SUM(I45:J45)		
46	40-45	=D18	=E18	=F18	=SUM(B46:D46)	=C46/E46	=D46/E46		=C46/$E$54	=D46/$E$54	=SUM(I46:J46)		

REG

	A	B	C	D	E	F	G	H	I	J	K	L	M
47	45-50	=D19	=E19	=F19	=SUM(B47:D47)	=C47/E47	=D47/E47		=C47/$E$54	=D47/$E$54	=SUM(I47:J47)		
48	50-55	=D20	=E20	=F20	=SUM(B48:D48)	=C48/E48	=D48/E48		=C48/$E$54	=D48/$E$54	=SUM(I48:J48)		
49	55-60	=D21	=E21	=F21	=SUM(B49:D49)	=C49/E49	=D49/E49		=C49/$E$54	=D49/$E$54	=SUM(I49:J49)		
50	60-65	=D22	=E22	=F22	=SUM(B50:D50)	=C50/E50	=D50/E50		=C50/$E$54	=D50/$E$54	=SUM(I50:J50)		
51	65-70	=D23	=E23	=F23	=SUM(B51:D51)	=C51/E51	=D51/E51		=C51/$E$54	=D51/$E$54	=SUM(I51:J51)		
52	70-75	=D24	=E24	=F24	=SUM(B52:D52)	=C52/E52	=D52/E52		=C52/$E$54	=D52/$E$54	=SUM(I52:J52)		
53	75-80	=D25	=E25	=F25	=SUM(B53:D53)	=C53/E53	=D53/E53		=C53/$E$54	=D53/$E$54	=SUM(I53:J53)		
54	Total	=SUM(B31:B53)	=SUM(C31:C53)	=SUM(D31:D53)	=SUM(E31:E53)				=SUM(I31:I53)	=SUM(J31:J53)	=SUM(K31:K53)		
55													
56	**Registration-Adjusted Weight Factors**								**Weight Distributions**				
57	**DWGT**	**Autos**	**PU & Vans**	**Buses**	**SU**	**CMB**			**Autos**	**PU & Vans**	**Buses**	**SU**	**CMB**
58	AE.AF	=V3*AJ3	=P3*AJ3	=X3*AK3	=Y3*AK3	=Z3*AK3			=I3	=J3	=K3	=L3	=M3
59	=AC4	=V4*AJ4	=P4*AJ4	=X4*AK4	=Y4*AK4	=Z4*AK4			=I4	=J4	=K4	=L4	=M4
60	=AC5	=V5*AJ5	=P5*AJ5	=X5*AK5	=Y5*AK5	=Z5*AK5			=I5	=J5	=K5	=L5	=M5
61	=AC6	=V6*AJ6	=P6*AJ6	=X6*AK6	=Y6*AK6	=Z6*AK6			=I6	=J6	=K6	=L6	=M6
62	=AC7	=V7*AJ7	=P7*AJ7	=X7*AK7	=Y7*AK7	=Z7*AK7			=I7	=J7	=K7	=L7	=M7
63	=AC8	=V8*AJ8	=P8*AJ8	=X8*AK8	=Y8*AK8	=Z8*AK8			=I8	=J8	=K8	=L8	=M8
64	=AC9	=V9*AJ9	=P9*AJ9	=X9*AK9	=Y9*AK9	=Z9*AK9			=I9	=J9	=K9	=L9	=M9
65	=AC10	=V10*AJ10	=P10*AJ10	=X10*AK10	=Y10*AK10	=Z10*AK10			=I10	=J10	=K10	=L10	=M10
66	=AC11	=V11*AJ11	=P11*AJ11	=X11*AK11	=Y11*AK11	=Z11*AK11			=I11	=J11	=K11	=L11	=M11
67	=AC12	=V12*AJ12	=P12*AJ12	=X12*AK12	=Y12*AK12	=Z12*AK12			=I12	=J12	=K12	=L12	=M12
68	=AC13	=V13*AJ13	=P13*AJ13	=X13*AK13	=Y13*AK13	=Z13*AK13			=I13	=J13	=K13	=L13	=M13
69	=AC14	=V14*AJ14	=P14*AJ14	=X14*AK14	=Y14*AK14	=Z14*AK14			=I14	=J14	=K14	=L14	=M14
70	=AC15	=V15*AJ15	=P15*AJ15	=X15*AK15	=Y15*AK15	=Z15*AK15			=I15	=J15	=K15	=L15	=M15
71	=AC16	=V16*AJ16	=P16*AJ16	=X16*AK16	=Y16*AK16	=Z16*AK16			=I16	=J16	=K16	=L16	=M16
72	=AC17	=V17*AJ17	=P17*AJ17	=X17*AK17	=Y17*AK17	=Z17*AK17			=I17	=J17	=K17	=L17	=M17
73	=AC18	=V18*AJ18	=P18*AJ18	=X18*AK18	=Y18*AK18	=Z18*AK18			=I18	=J18	=K18	=L18	=M18
74	=AC19	=V19*AJ19	=P19*AJ19	=X19*AK19	=Y19*AK19	=Z19*AK19			=I19	=J19	=K19	=L19	=M19
75	=AC20	=V20*AJ20	=P20*AJ20	=X20*AK20	=Y20*AK20	=Z20*AK20			=I20	=J20	=K20	=L20	=M20
76	=AC21	=V21*AJ21	=P21*AJ21	=X21*AK21	=Y21*AK21	=Z21*AK21			=I21	=J21	=K21	=L21	=M21
77	=AC22	=V22*AJ22	=P22*AJ22	=X22*AK22	=Y22*AK22	=Z22*AK22			=I22	=J22	=K22	=L22	=M22
78	=AC23	=V23*AJ23	=P23*AJ23	=X23*AK23	=Y23*AK23	=Z23*AK23			=I23	=J23	=K23	=L23	=M23
79	=AC24	=V24*AJ24	=P24*AJ24	=X24*AK24	=Y24*AK24	=Z24*AK24			=I24	=J24	=K24	=L24	=M24
80	=AC25	=V25*AJ25	=P25*AJ25	=X25*AK25	=Y25*AK25	=Z25*AK25			=I25	=J25	=K25	=L25	=M25
81		=SUM(B58:B80)	=SUM(C58:C80)	=SUM(D58:D80)	=SUM(E58:E80)	=SUM(F58:F80)			=SUM(I58:I80)	=SUM(J58:J80)	=SUM(K58:K80)	=SUM(L58:L80)	=SUM(M58:M80)

REG

	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1		Proportion of Registrations by Weight							Proportion of All Registrations					
2		Autos	PU & Vans	Buses	SU	CMB	Total		Autos	PU & Vans	Buses	SU	CMB	Total
3		=B3/G3	=C3/G3	=D3/G3	=E3/G3	=F3/G3	=SUM(O3:S3)		=B3/$G$26	=C3/$G$26	=D3/$G$26	=E3/$G$26	=F3/$G$26	=G3/$G$26
4		=B4/G4	=C4/G4	=D4/G4	=E4/G4	=F4/G4	=SUM(O4:S4)		=B4/$G$26	=C4/$G$26	=D4/$G$26	=E4/$G$26	=F4/$G$26	=G4/$G$26
5		=B5/G5	=C5/G5	=D5/G5	=E5/G5	=F5/G5	=SUM(O5:S5)		=B5/$G$26	=C5/$G$26	=D5/$G$26	=E5/$G$26	=F5/$G$26	=G5/$G$26
6		=B6/G6	=C6/G6	=D6/G6	=E6/G6	=F6/G6	=SUM(O6:S6)		=B6/$G$26	=C6/$G$26	=D6/$G$26	=E6/$G$26	=F6/$G$26	=G6/$G$26
7		=B7/G7	=C7/G7	=D7/G7	=E7/G7	=F7/G7	=SUM(O7:S7)		=B7/$G$26	=C7/$G$26	=D7/$G$26	=E7/$G$26	=F7/$G$26	=G7/$G$26
8		=B8/G8	=C8/G8	=D8/G8	=E8/G8	=F8/G8	=SUM(O8:S8)		=B8/$G$26	=C8/$G$26	=D8/$G$26	=E8/$G$26	=F8/$G$26	=G8/$G$26
9		=B9/G9	=C9/G9	=D9/G9	=E9/G9	=F9/G9	=SUM(O9:S9)		=B9/$G$26	=C9/$G$26	=D9/$G$26	=E9/$G$26	=F9/$G$26	=G9/$G$26
10		=B10/G10	=C10/G10	=D10/G10	=E10/G10	=F10/G10	=SUM(O10:S10)		=B10/$G$26	=C10/$G$26	=D10/$G$26	=E10/$G$26	=F10/$G$26	=G10/$G$26
11		=B11/G11	=C11/G11	=D11/G11	=E11/G11	=F11/G11	=SUM(O11:S11)		=B11/$G$26	=C11/$G$26	=D11/$G$26	=E11/$G$26	=F11/$G$26	=G11/$G$26
12		=B12/G12	=C12/G12	=D12/G12	=E12/G12	=F12/G12	=SUM(O12:S12)		=B12/$G$26	=C12/$G$26	=D12/$G$26	=E12/$G$26	=F12/$G$26	=G12/$G$26
13		=B13/G13	=C13/G13	=D13/G13	=E13/G13	=F13/G13	=SUM(O13:S13)		=B13/$G$26	=C13/$G$26	=D13/$G$26	=E13/$G$26	=F13/$G$26	=G13/$G$26
14		=B14/G14	=C14/G14	=D14/G14	=E14/G14	=F14/G14	=SUM(O14:S14)		=B14/$G$26	=C14/$G$26	=D14/$G$26	=E14/$G$26	=F14/$G$26	=G14/$G$26
15		=B15/G15	=C15/G15	=D15/G15	=E15/G15	=F15/G15	=SUM(O15:S15)		=B15/$G$26	=C15/$G$26	=D15/$G$26	=E15/$G$26	=F15/$G$26	=G15/$G$26
16		=B16/G16	=C16/G16	=D16/G16	=E16/G16	=F16/G16	=SUM(O16:S16)		=B16/$G$26	=C16/$G$26	=D16/$G$26	=E16/$G$26	=F16/$G$26	=G16/$G$26
17		=B17/G17	=C17/G17	=D17/G17	=E17/G17	=F17/G17	=SUM(O17:S17)		=B17/$G$26	=C17/$G$26	=D17/$G$26	=E17/$G$26	=F17/$G$26	=G17/$G$26
18		=B18/G18	=C18/G18	=D18/G18	=E18/G18	=F18/G18	=SUM(O18:S18)		=B18/$G$26	=C18/$G$26	=D18/$G$26	=E18/$G$26	=F18/$G$26	=G18/$G$26
19		=B19/G19	=C19/G19	=D19/G19	=E19/G19	=F19/G19	=SUM(O19:S19)		=B19/$G$26	=C19/$G$26	=D19/$G$26	=E19/$G$26	=F19/$G$26	=G19/$G$26
20		=B20/G20	=C20/G20	=D20/G20	=E20/G20	=F20/G20	=SUM(O20:S20)		=B20/$G$26	=C20/$G$26	=D20/$G$26	=E20/$G$26	=F20/$G$26	=G20/$G$26
21		=B21/G21	=C21/G21	=D21/G21	=E21/G21	=F21/G21	=SUM(O21:S21)		=B21/$G$26	=C21/$G$26	=D21/$G$26	=E21/$G$26	=F21/$G$26	=G21/$G$26
22		=B22/G22	=C22/G22	=D22/G22	=E22/G22	=F22/G22	=SUM(O22:S22)		=B22/$G$26	=C22/$G$26	=D22/$G$26	=E22/$G$26	=F22/$G$26	=G22/$G$26
23		=B23/G23	=C23/G23	=D23/G23	=E23/G23	=F23/G23	=SUM(O23:S23)		=B23/$G$26	=C23/$G$26	=D23/$G$26	=E23/$G$26	=F23/$G$26	=G23/$G$26
24		=B24/G24	=C24/G24	=D24/G24	=E24/G24	=F24/G24	=SUM(O24:S24)		=B24/$G$26	=C24/$G$26	=D24/$G$26	=E24/$G$26	=F24/$G$26	=G24/$G$26
25		=B25/G25	=C25/G25	=D25/G25	=E25/G25	=F25/G25	=SUM(O25:S25)		=B25/$G$26	=C25/$G$26	=D25/$G$26	=E25/$G$26	=F25/$G$26	=G25/$G$26
26		=B26/G26	=C26/G26	=D26/G26	=E26/G26	=F26/G26	=SUM(O26:S26)		=SUM(V3:V25)	=SUM(W3:W25)	=SUM(X3:X25)	=SUM(Y3:Y25)	=SUM(Z3:Z25)	=SUM(AA3:AA25)
27														
28														
29		Commercial Registration Matrix (MC Fees)												
30		Auto	PU	Bus	SU	CMB	Total							
31		0	0	=B31/$E$54	=I31	=J31	=SUM(O31:S31)							
32		0	0	=B32/$E$54	=I32	=J32	=SUM(O32:S32)							
33		0	0	=B33/$E$54	=I33	=J33	=SUM(O33:S33)							
34		0	0	=B34/$E$54	=I34	=J34	=SUM(O34:S34)							
35		0	0	=B35/$E$54	=I35	=J35	=SUM(O35:S35)							
36		0	0	=B36/$E$54	=I36	=J36	=SUM(O36:S36)							
37		0	0	=B37/$E$54	=I37	=J37	=SUM(O37:S37)							
38		0	0	=B38/$E$54	=I38	=J38	=SUM(O38:S38)							
39		0	0	=B39/$E$54	=I39	=J39	=SUM(O39:S39)							
40		0	0	=B40/$E$54	=I40	=J40	=SUM(O40:S40)							
41		0	0	=B41/$E$54	=I41	=J41	=SUM(O41:S41)							
42		0	0	=B42/$E$54	=I42	=J42	=SUM(O42:S42)							
43		0	0	=B43/$E$54	=I43	=J43	=SUM(O43:S43)							
44		0	0	=B44/$E$54	=I44	=J44	=SUM(O44:S44)							
45		0	0	=B45/$E$54	=I45	=J45	=SUM(O45:S45)							
46		0	0	=B46/$E$54	=I46	=J46	=SUM(O46:S46)							
47		0	0	=B47/$E$54	=I47	=J47	=SUM(O47:S47)							
48		0	0	=B48/$E$54	=I48	=J48	=SUM(O48:S48)							
49		0	0	=B49/$E$54	=I49	=J49	=SUM(O49:S49)							

REG

	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
50		0	0	=B50/$E$54	=I50	=J50	=SUM(O50:S50)							
51		0	0	=B51/$E$54	=I51	=J51	=SUM(O51:S51)							
52		0	0	=B52/$E$54	=I52	=J52	=SUM(O52:S52)							
53		0	0	=B53/$E$54	=I53	=J53	=SUM(O53:S53)							
54		**=SUM(O31:O53)**	**=SUM(P31:P53)**	**=SUM(Q31:Q53)**	**=SUM(R31:R53)**	**=SUM(S31:S53)**	**=SUM(O54:S54)**							
55														
56		**Average Weight Derivation**												
57		**Light Vehicles**	**Pick-ups & Vans**	**Buses**	**Single Units**	**Combinations**								
58		=I58*3000	=J58*3000	=K58*6000	=L58*6000	=M58*6000								
59		=I59*A59	=J59*A59	=K59*A59	=L59*A59	=M59*A59								
60		=I60*A60	=J60*A60	=K60*A60	=L60*A60	=M60*A60								
61		=I61*A61	=J61*A61	=K61*A61	=L61*A61	=M61*A61								
62		=I62*A62	=J62*A62	=K62*A62	=L62*A62	=M62*A62								
63		=I63*A63	=J63*A63	=K63*A63	=L63*A63	=M63*A63								
64		=I64*A64	=J64*A64	=K64*A64	=L64*A64	=M64*A64								
65		=I65*A65	=J65*A65	=K65*A65	=L65*A65	=M65*A65								
66		=I66*A66	=J66*A66	=K66*A66	=L66*A66	=M66*A66								
67		=I67*A67	=J67*A67	=K67*A67	=L67*A67	=M67*A67								
68		=I68*A68	=J68*A68	=K68*A68	=L68*A68	=M68*A68								
69		=I69*A69	=J69*A69	=K69*A69	=L69*A69	=M69*A69								
70		=I70*A70	=J70*A70	=K70*A70	=L70*A70	=M70*A70								
71		=I71*A71	=J71*A71	=K71*A71	=L71*A71	=M71*A71								
72		=I72*A72	=J72*A72	=K72*A72	=L72*A72	=M72*A72								
73		=I73*A73	=J73*A73	=K73*A73	=L73*A73	=M73*A73								
74		=I74*A74	=J74*A74	=K74*A74	=L74*A74	=M74*A74								
75		=I75*A75	=J75*A75	=K75*A75	=L75*A75	=M75*A75								
76		=I76*A76	=J76*A76	=K76*A76	=L76*A76	=M76*A76								
77		=I77*A77	=J77*A77	=K77*A77	=L77*A77	=M77*A77								
78		=I78*A78	=J78*A78	=K78*A78	=L78*A78	=M78*A78								
79		=I79*A79	=J79*A79	=K79*A79	=L79*A79	=M79*A79								
80		=I80*A80	=J80*A80	=K80*A80	=L80*(A80-20000)	=M80*A80								
81		**=SUM(O58:O80)**	**=SUM(P58:P80)**	**=SUM(Q58:Q80)**	**=SUM(R58:R80)**	**=SUM(S58:S80)**								

REG

	AB	AC	AD	AE	AF
1					
2		**Default Weight**			
3		AE3:AF3	=AE3/SUM(AE3,AC4:AC25)	=AH3/AH26	=AI3/AI26
4		9000	=AC4/SUM($AF$3,$AC$4:$AC$25)	=AH4/AVERAGE($AH$26:$AI$26)	=AJ4
5		11000	=AC5/SUM($AF$3,$AC$4:$AC$25)	=AH5/AVERAGE($AH$26:$AI$26)	=AJ5
6		13000	=AC6/SUM($AF$3,$AC$4:$AC$25)	=AH6/AVERAGE($AH$26:$AI$26)	=AJ6
7		15000	=AC7/SUM($AF$3,$AC$4:$AC$25)	=AH7/AVERAGE($AH$26:$AI$26)	=AJ7
8		17000	=AC8/SUM($AF$3,$AC$4:$AC$25)	=AH8/AVERAGE($AH$26:$AI$26)	=AJ8
9		19000	=AC9/SUM($AF$3,$AC$4:$AC$25)	=AH9/AVERAGE($AH$26:$AI$26)	=AJ9
10		21000	=AC10/SUM($AF$3,$AC$4:$AC$25)	=AH10/AVERAGE($AH$26:$AI$26)	=AJ10
11		23000	=AC11/SUM($AF$3,$AC$4:$AC$25)	=AH11/AVERAGE($AH$26:$AI$26)	=AJ11
12		25000	=AC12/SUM($AF$3,$AC$4:$AC$25)	=AH12/AVERAGE($AH$26:$AI$26)	=AJ12
13		27000	=AC13/SUM($AF$3,$AC$4:$AC$25)	=AH13/AVERAGE($AH$26:$AI$26)	=AJ13
14		29000	=AC14/SUM($AF$3,$AC$4:$AC$25)	=AH14/AVERAGE($AH$26:$AI$26)	=AJ14
15		31000	=AC15/SUM($AF$3,$AC$4:$AC$25)	=AH15/AVERAGE($AH$26:$AI$26)	=AJ15
16		34000	=AC16/SUM($AF$3,$AC$4:$AC$25)	=AH16/AVERAGE($AH$26:$AI$26)	=AJ16
17		38000	=AC17/SUM($AF$3,$AC$4:$AC$25)	=AH17/AVERAGE($AH$26:$AI$26)	=AJ17
18		42500	=AC18/SUM($AF$3,$AC$4:$AC$25)	=AH18/AVERAGE($AH$26:$AI$26)	=AJ18
19		47500	=AC19/SUM($AF$3,$AC$4:$AC$25)	=AH19/AVERAGE($AH$26:$AI$26)	=AJ19
20		52500	=AC20/SUM($AF$3,$AC$4:$AC$25)	=AH20/AVERAGE($AH$26:$AI$26)	=AJ20
21		57500	=AC21/SUM($AF$3,$AC$4:$AC$25)	=AH21/AVERAGE($AH$26:$AI$26)	=AJ21
22		62500	=AC22/SUM($AF$3,$AC$4:$AC$25)	=AH22/AVERAGE($AH$26:$AI$26)	=AJ22
23		67500	=AC23/SUM($AF$3,$AC$4:$AC$25)	=AH23/AVERAGE($AH$26:$AI$26)	=AJ23
24		72500	=AC24/SUM($AF$3,$AC$4:$AC$25)	=AH24/AVERAGE($AH$26:$AI$26)	=AJ24
25		95000	=AC25/SUM($AF$3,$AC$4:$AC$25)	=AH25/AVERAGE($AH$26:$AI$26)	=AJ25
26			=SUM(AH3:AH25)		

VMT

	A	B	C	D	E	F	G	H
1	**Base Period Percentage of Total VMT**							
2								
3						**SU**		
4	**Year**	**MC**	**AUTO**	**LT**	**BUS**	**2A 6T**	**3A**	**4A**
5	='HPMS IN'!D21	=(UVMT!B5*'HPMS IN'!$B$19+RVMT!B5*'HPMS IN'!$B$10)/SUM('HPMS IN'!$B$10,'HPMS IN'!$B$19)	=(UVMT!C5*'HPMS IN'!$B$19+RVMT!C5*'HPMS IN'!$B$10)/SUM('HPMS IN'!$B$10,'HPMS IN'!$B$19)	=(UVMT!D5*'HPMS IN'!$B$19+RVMT!D5*'HPMS IN'!$B$10)/SUM('HPMS IN'!$B$10,'HPMS IN'!$B$19)	=(UVMT!E5*'HPMS IN'!$B$19+RVMT!E5*'HPMS IN'!$B$10)/SUM('HPMS IN'!$B$10,'HPMS IN'!$B$19)	=(UVMT!F5*'HPMS IN'!$B$19+RVMT!F5*'HPMS IN'!$B$10)/SUM('HPMS IN'!$B$10,'HPMS IN'!$B$19)	=(UVMT!G5*'HPMS IN'!$B$19+RVMT!G5*'HPMS IN'!$B$10)/SUM('HPMS IN'!$B$10,'HPMS IN'!$B$19)	=(UVMT!H5*'HPMS IN'!$B$19+RVMT!H5*'HPMS IN'!$B$10)/SUM('HPMS IN'!$B$10,'HPMS IN'!$B$19)
6	='HPMS IN'!D41	=(UVMT!B6*'HPMS IN'!$C$19+RVMT!B6*'HPMS IN'!$C$10)/SUM('HPMS IN'!$C$10,'HPMS IN'!$C$19)	=(UVMT!C6*'HPMS IN'!$C$19+RVMT!C6*'HPMS IN'!$C$10)/SUM('HPMS IN'!$C$10,'HPMS IN'!$C$19)	=(UVMT!D6*'HPMS IN'!$C$19+RVMT!D6*'HPMS IN'!$C$10)/SUM('HPMS IN'!$C$10,'HPMS IN'!$C$19)	=(UVMT!E6*'HPMS IN'!$C$19+RVMT!E6*'HPMS IN'!$C$10)/SUM('HPMS IN'!$C$10,'HPMS IN'!$C$19)	=(UVMT!F6*'HPMS IN'!$C$19+RVMT!F6*'HPMS IN'!$C$10)/SUM('HPMS IN'!$C$10,'HPMS IN'!$C$19)	=(UVMT!G6*'HPMS IN'!$C$19+RVMT!G6*'HPMS IN'!$C$10)/SUM('HPMS IN'!$C$10,'HPMS IN'!$C$19)	=(UVMT!H6*'HPMS IN'!$C$19+RVMT!H6*'HPMS IN'!$C$10)/SUM('HPMS IN'!$C$10,'HPMS IN'!$C$19)
7	='HPMS IN'!D61	=(UVMT!B7*'HPMS IN'!$D$19+RVMT!B7*'HPMS IN'!$D$10)/SUM('HPMS IN'!$D$10,'HPMS IN'!$D$19)	=(UVMT!C7*'HPMS IN'!$D$19+RVMT!C7*'HPMS IN'!$D$10)/SUM('HPMS IN'!$D$10,'HPMS IN'!$D$19)	=(UVMT!D7*'HPMS IN'!$D$19+RVMT!D7*'HPMS IN'!$D$10)/SUM('HPMS IN'!$D$10,'HPMS IN'!$D$19)	=(UVMT!E7*'HPMS IN'!$D$19+RVMT!E7*'HPMS IN'!$D$10)/SUM('HPMS IN'!$D$10,'HPMS IN'!$D$19)	=(UVMT!F7*'HPMS IN'!$D$19+RVMT!F7*'HPMS IN'!$D$10)/SUM('HPMS IN'!$D$10,'HPMS IN'!$D$19)	=(UVMT!G7*'HPMS IN'!$D$19+RVMT!G7*'HPMS IN'!$D$10)/SUM('HPMS IN'!$D$10,'HPMS IN'!$D$19)	=(UVMT!H7*'HPMS IN'!$D$19+RVMT!H7*'HPMS IN'!$D$10)/SUM('HPMS IN'!$D$10,'HPMS IN'!$D$19)
8								
9	**Average Share**	=AVERAGE(B5:B7)	=AVERAGE(C5:C7)	=AVERAGE(D5:D7)	=AVERAGE(E5:E7)	=AVERAGE(F5:F7)	=AVERAGE(G5:G7)	=AVERAGE(H5:H7)
10								
11	**Annual Growth**	=((B7/B5)^(1/(A7-A5+1)))	=((C7/C5)^(1/(B7-B5+1)))	=((D7/D5)^(1/(C7-C5+1)))	=((E7/E5)^(1/(D7-D5+1)))	=((F7/F5)^(1/(E7-E5+1)))	=((G7/G5)^(1/(F7-F5+1)))	=((H7/H5)^(1/(G7-G5+1)))
12	**Earliest Period**	=((B6/B5)^(1/(A6-A5+1)))	=((C6/C5)^(1/(B6-B5+1)))	=((D6/D5)^(1/(C6-C5+1)))	=((E6/E5)^(1/(D6-D5+1)))	=((F6/F5)^(1/(E6-E5+1)))	=((G6/G5)^(1/(F6-F5+1)))	=((H6/H5)^(1/(G6-G5+1)))
13	**Latest Period**	=((B7/B6)^(1/(A7-A6+1)))	=((C7/C6)^(1/(B7-B6+1)))	=((D7/D6)^(1/(C7-C6+1)))	=((E7/E6)^(1/(D7-D6+1)))	=((F7/F6)^(1/(E7-E6+1)))	=((G7/G6)^(1/(F7-F6+1)))	=((H7/H6)^(1/(G7-G6+1)))
14	**Average Growth**	=AVERAGE(B11:B13)	=AVERAGE(C11:C13)	=AVERAGE(D11:D13)	=AVERAGE(E11:E13)	=AVERAGE(F11:F13)	=AVERAGE(G11:G13)	=AVERAGE(H11:H13)
15	**Adjusted Average**	=IF(ISERROR(B14),1,IF(B14>1.2,2-(1/(B14^(1/10))),IF(B14<1,(MAX(B11:B13,1)^(1/4)),B14)))	=IF(ISERROR(C14),1,IF(C14>1.2,2-(1/(C14^(1/10))),IF(C14<1,(MAX(C11:C13,1)^(1/4)),C14)))	=IF(ISERROR(D14),1,IF(D14>1.2,2-(1/(D14^(1/10))),IF(D14<1,(MAX(D11:D13,1)^(1/4)),D14)))	=IF(ISERROR(E14),1,IF(E14>1.2,2-(1/(E14^(1/10))),IF(E14<1,(MAX(E11:E13,1)^(1/4)),E14)))	=IF(ISERROR(F14),1,IF(F14>1.2,2-(1/(F14^(1/10))),IF(F14<1,(MAX(F11:F13,1)^(1/4)),F14)))	=IF(ISERROR(G14),1,IF(G14>1.2,2-(1/(G14^(1/10))),IF(G14<1,(MAX(G11:G13,1)^(1/4)),G14)))	=IF(ISERROR(H14),1,IF(H14>1.2,2-(1/(H14^(1/10))),IF(H14<1,(MAX(H11:H13,1)^(1/4)),H14)))
16								
17	**Projected Percentage of VMT by Vehicle Class**							
18	Forecast Year:	='EXP IN'!B4						
19						**SU**		
20		**MC**	**AUTO**	**LT**	**BUS**	**2A 6T**	**3A**	**4A**
21	**Share**	=B9*(B15^($B$18-$A$7))	=C9*(C15^($B$18-$A$7))	=D9*(D15^($B$18-$A$7))	=E9*(E15^($B$18-$A$7))	=F9*(F15^($B$18-$A$7))	=G9*(G15^($B$18-$A$7))	=H9*(H15^($B$18-$A$7))
22	**Adjusted Share**	=B21/$O$21	=C21/$O$21	=D21/$O$21	=E21/$O$21	=F21/$O$21	=G21/$O$21	=H21/$O$21

VMT

	I	J	K	L	M	N	O
1							
2							
3	**CMB Single Trailer**			**CMB Multi-trailer**			
4	**CS 4A**	**CS 5A**	**CS 6A**	**CM 5A**	**CM 6A**	**CM 7A**	**Total**
5	=(UVMT!I5*'HPMS IN'!$B$19+RVMT!I5*'HPMS IN'!$B$10)/SUM('HPMS IN'!$B$10,'HPMS IN'!$B$19)	=(UVMT!J5*'HPMS IN'!$B$19+RVMT!J5*'HPMS IN'!$B$10)/SUM('HPMS IN'!$B$10,'HPMS IN'!$B$19)	=(UVMT!K5*'HPMS IN'!$B$19+RVMT!K5*'HPMS IN'!$B$10)/SUM('HPMS IN'!$B$10,'HPMS IN'!$B$19)	=(UVMT!L5*'HPMS IN'!$B$19+RVMT!L5*'HPMS IN'!$B$10)/SUM('HPMS IN'!$B$10,'HPMS IN'!$B$19)	=(UVMT!M5*'HPMS IN'!$B$19+RVMT!M5*'HPMS IN'!$B$10)/SUM('HPMS IN'!$B$10,'HPMS IN'!$B$19)	=(UVMT!N5*'HPMS IN'!$B$19+RVMT!N5*'HPMS IN'!$B$10)/SUM('HPMS IN'!$B$10,'HPMS IN'!$B$19)	=SUM(B5:N5)
6	=(UVMT!I6*'HPMS IN'!$C$19+RVMT!I6*'HPMS IN'!$C$10)/SUM('HPMS IN'!$C$10,'HPMS IN'!$C$19)	=(UVMT!J6*'HPMS IN'!$C$19+RVMT!J6*'HPMS IN'!$C$10)/SUM('HPMS IN'!$C$10,'HPMS IN'!$C$19)	=(UVMT!K6*'HPMS IN'!$C$19+RVMT!K6*'HPMS IN'!$C$10)/SUM('HPMS IN'!$C$10,'HPMS IN'!$C$19)	=(UVMT!L6*'HPMS IN'!$C$19+RVMT!L6*'HPMS IN'!$C$10)/SUM('HPMS IN'!$C$10,'HPMS IN'!$C$19)	=(UVMT!M6*'HPMS IN'!$C$19+RVMT!M6*'HPMS IN'!$C$10)/SUM('HPMS IN'!$C$10,'HPMS IN'!$C$19)	=(UVMT!N6*'HPMS IN'!$C$19+RVMT!N6*'HPMS IN'!$C$10)/SUM('HPMS IN'!$C$10,'HPMS IN'!$C$19)	=SUM(B6:N6)
7	=(UVMT!I7*'HPMS IN'!$D$19+RVMT!I7*'HPMS IN'!$D$10)/SUM('HPMS IN'!$D$10,'HPMS IN'!$D$19)	=(UVMT!J7*'HPMS IN'!$D$19+RVMT!J7*'HPMS IN'!$D$10)/SUM('HPMS IN'!$D$10,'HPMS IN'!$D$19)	=(UVMT!K7*'HPMS IN'!$D$19+RVMT!K7*'HPMS IN'!$D$10)/SUM('HPMS IN'!$D$10,'HPMS IN'!$D$19)	=(UVMT!L7*'HPMS IN'!$D$19+RVMT!L7*'HPMS IN'!$D$10)/SUM('HPMS IN'!$D$10,'HPMS IN'!$D$19)	=(UVMT!M7*'HPMS IN'!$D$19+RVMT!M7*'HPMS IN'!$D$10)/SUM('HPMS IN'!$D$10,'HPMS IN'!$D$19)	=(UVMT!N7*'HPMS IN'!$D$19+RVMT!N7*'HPMS IN'!$D$10)/SUM('HPMS IN'!$D$10,'HPMS IN'!$D$19)	=SUM(B7:N7)
8							
9	=AVERAGE(I5:I7)	=AVERAGE(J5:J7)	=AVERAGE(K5:K7)	=AVERAGE(L5:L7)	=AVERAGE(M5:M7)	=AVERAGE(N5:N7)	
10							
11	=((I7/I5)^(1/(H7-H5+1)))	=((J7/J5)^(1/(I7-I5+1)))	=((K7/K5)^(1/(J7-J5+1)))	=((L7/L5)^(1/(K7-K5+1)))	=((M7/M5)^(1/(L7-L5+1)))	=((N7/N5)^(1/(M7-M5+1)))	
12	=((I6/I5)^(1/(H6-H5+1)))	=((J6/J5)^(1/(I6-I5+1)))	=((K6/K5)^(1/(J6-J5+1)))	=((L6/L5)^(1/(K6-K5+1)))	=((M6/M5)^(1/(L6-L5+1)))	=((N6/N5)^(1/(M6-M5+1)))	
13	=((I7/I6)^(1/(H7-H6+1)))	=((J7/J6)^(1/(I7-I6+1)))	=((K7/K6)^(1/(J7-J6+1)))	=((L7/L6)^(1/(K7-K6+1)))	=((M7/M6)^(1/(L7-L6+1)))	=((N7/N6)^(1/(M7-M6+1)))	
14	=AVERAGE(I11:I13)	=AVERAGE(J11:J13)	=AVERAGE(K11:K13)	=AVERAGE(L11:L13)	=AVERAGE(M11:M13)	=AVERAGE(N11:N13)	
15	=IF(ISERROR(I14),1,IF(I14>1.2,2-(1/(I14^(1/10))),IF(I14<1,(MAX(I11:I13,1)^(1/4)),I14)))	=IF(ISERROR(J14),1,IF(J14>1.2,2-(1/(J14^(1/10))),IF(J14<1,(MAX(J11:J13,1)^(1/4)),J14)))	=IF(ISERROR(K14),1,IF(K14>1.2,2-(1/(K14^(1/10))),IF(K14<1,(MAX(K11:K13,1)^(1/4)),K14)))	=IF(ISERROR(L14),1,IF(L14>1.2,2-(1/(L14^(1/10))),IF(L14<1,(MAX(L11:L13,1)^(1/4)),L14)))	=IF(ISERROR(M14),1,IF(M14>1.2,2-(1/(M14^(1/10))),IF(M14<1,(MAX(M11:M13,1)^(1/4)),M14)))	=IF(ISERROR(N14),1,IF(N14>1.2,2-(1/(N14^(1/10))),IF(N14<1,(MAX(N11:N13,1)^(1/4)),N14)))	
16							
17							
18							
19	**CMB Single Trailer**			**CMB Multi-trailer**			
20	**CS 4A**	**CS 5A**	**CS 6A**	**CM 5A**	**CM 6A**	**CM 7A**	**Total**
21	=I9*(I15^($B$18-$A$7))	=J9*(J15^($B$18-$A$7))	=K9*(K15^($B$18-$A$7))	=L9*(L15^($B$18-$A$7))	=M9*(M15^($B$18-$A$7))	=N9*(N15^($B$18-$A$7))	
22	=I21/$O$21	=J21/$O$21	=K21/$O$21	=L21/$O$21	=M21/$O$21	=N21/$O$21	=SUM(B22:N22)

VMT

	P	Q	R
1		**Aggregated Model Input Tables**	
2		**Share of VMT Category by Vehicle Class**	
3		**Vehicle Class**	**Projected Share**
4			
5		Autos	=SUM(B22:C22)
6		Pick-ups and SUVs	=SUM(D22)
7		Buses	=SUM(E22)
8		Single Unit trucks	=SUM(F22:H22)
9		Combination trucks	=SUM(I22:N22)
10			
11			
12		**Weight Class**	**Projected Share**
13			
14		0 - 8,000 lb.	=$R$5*REG!I3+$R$6*REG!J3+$R$7*REG!K3+$R$8*REG!L3+$R$9*REG!M3
15		8,000-10,000 lb.	=$R$5*REG!I4+$R$6*REG!J4+$R$7*REG!K4+$R$8*REG!L4+$R$9*REG!M4
16		10,000-12,000 lb.	=$R$5*REG!I5+$R$6*REG!J5+$R$7*REG!K5+$R$8*REG!L5+$R$9*REG!M5
17		12,000-14,000 lb.	=$R$5*REG!I6+$R$6*REG!J6+$R$7*REG!K6+$R$8*REG!L6+$R$9*REG!M6
18		14,000-16,000 lb.	=$R$5*REG!I7+$R$6*REG!J7+$R$7*REG!K7+$R$8*REG!L7+$R$9*REG!M7
19		16,000-18,000 lb.	=$R$5*REG!I8+$R$6*REG!J8+$R$7*REG!K8+$R$8*REG!L8+$R$9*REG!M8
20		18,000-20,000 lb.	=$R$5*REG!I9+$R$6*REG!J9+$R$7*REG!K9+$R$8*REG!L9+$R$9*REG!M9
21		20,000-22,000 lb.	=$R$5*REG!I10+$R$6*REG!J10+$R$7*REG!K10+$R$8*REG!L10+$R$9*REG!M10
22		22,000-24,000 lb.	=$R$5*REG!I11+$R$6*REG!J11+$R$7*REG!K11+$R$8*REG!L11+$R$9*REG!M11
23		24,000-26,000 lb.	=$R$5*REG!I12+$R$6*REG!J12+$R$7*REG!K12+$R$8*REG!L12+$R$9*REG!M12
24		26,000-28,000 lb.	=$R$5*REG!I13+$R$6*REG!J13+$R$7*REG!K13+$R$8*REG!L13+$R$9*REG!M13
25		28,000-30,000 lb.	=$R$5*REG!I14+$R$6*REG!J14+$R$7*REG!K14+$R$8*REG!L14+$R$9*REG!M14
26		30,000-32,000 lb.	=$R$5*REG!I15+$R$6*REG!J15+$R$7*REG!K15+$R$8*REG!L15+$R$9*REG!M15
27		32,000-36,000 lb.	=$R$5*REG!I16+$R$6*REG!J16+$R$7*REG!K16+$R$8*REG!L16+$R$9*REG!M16
28		36,000-40,000 lb.	=$R$5*REG!I17+$R$6*REG!J17+$R$7*REG!K17+$R$8*REG!L17+$R$9*REG!M17
29		40,000-45,000 lb.	=$R$5*REG!I18+$R$6*REG!J18+$R$7*REG!K18+$R$8*REG!L18+$R$9*REG!M18
30		45,000-50,000 lb.	=$R$5*REG!I19+$R$6*REG!J19+$R$7*REG!K19+$R$8*REG!L19+$R$9*REG!M19
31		50,000-55,000 lb.	=$R$5*REG!I20+$R$6*REG!J20+$R$7*REG!K20+$R$8*REG!L20+$R$9*REG!M20
32		55,000-60,000 lb.	=$R$5*REG!I21+$R$6*REG!J21+$R$7*REG!K21+$R$8*REG!L21+$R$9*REG!M21
33		60,000-65,000 lb.	=$R$5*REG!I22+$R$6*REG!J22+$R$7*REG!K22+$R$8*REG!L22+$R$9*REG!M22
34		65,000-70,000 lb.	=$R$5*REG!I23+$R$6*REG!J23+$R$7*REG!K23+$R$8*REG!L23+$R$9*REG!M23
35		70,000-75,000 lb.	=$R$5*REG!I24+$R$6*REG!J24+$R$7*REG!K24+$R$8*REG!L24+$R$9*REG!M24
36		75,000-80,000 lb.	=$R$5*REG!I25+$R$6*REG!J25+$R$7*REG!K25+$R$8*REG!L25+$R$9*REG!M25
37		**Total**	**=SUM(R14:R36)**

RVMT

	A	B	C	D	E	F	G	H
1	**Base Period Percentage of Total VMT**							
2								
3						**SU**		
4	**Year**	**MC**	**AUTO**	**LT**	**BUS**	**2A 6T**	**3A**	**4A**
5	='HPMS IN'!D21	=HLOOKUP(B$4,'HPMS IN'!$B$23:$N$30,8,FALSE)	=HLOOKUP(C$4,'HPMS IN'!$B$23:$N$30,8,FALSE)	=HLOOKUP(D$4,'HPMS IN'!$B$23:$N$30,8,FALSE)	=HLOOKUP(E$4,'HPMS IN'!$B$23:$N$30,8,FALSE)	=HLOOKUP(F$4,'HPMS IN'!$B$23:$N$30,8,FALSE)	=HLOOKUP(G$4,'HPMS IN'!$B$23:$N$30,8,FALSE)	=HLOOKUP(H$4,'HPMS IN'!$B$23:$N$30,8,FALSE)
6	='HPMS IN'!D41	=HLOOKUP(B$4,'HPMS IN'!$B$43:$N$50,8,FALSE)	=HLOOKUP(C$4,'HPMS IN'!$B$43:$N$50,8,FALSE)	=HLOOKUP(D$4,'HPMS IN'!$B$43:$N$50,8,FALSE)	=HLOOKUP(E$4,'HPMS IN'!$B$43:$N$50,8,FALSE)	=HLOOKUP(F$4,'HPMS IN'!$B$43:$N$50,8,FALSE)	=HLOOKUP(G$4,'HPMS IN'!$B$43:$N$50,8,FALSE)	=HLOOKUP(H$4,'HPMS IN'!$B$43:$N$50,8,FALSE)
7	='HPMS IN'!D61	=HLOOKUP(B$4,'HPMS IN'!$B$63:$N$70,8,FALSE)	=HLOOKUP(C$4,'HPMS IN'!$B$63:$N$70,8,FALSE)	=HLOOKUP(D$4,'HPMS IN'!$B$63:$N$70,8,FALSE)	=HLOOKUP(E$4,'HPMS IN'!$B$63:$N$70,8,FALSE)	=HLOOKUP(F$4,'HPMS IN'!$B$63:$N$70,8,FALSE)	=HLOOKUP(G$4,'HPMS IN'!$B$63:$N$70,8,FALSE)	=HLOOKUP(H$4,'HPMS IN'!$B$63:$N$70,8,FALSE)
8								
9	**Average Share**	=AVERAGE(B5:B7)	=AVERAGE(C5:C7)	=AVERAGE(D5:D7)	=AVERAGE(E5:E7)	=AVERAGE(F5:F7)	=AVERAGE(G5:G7)	=AVERAGE(H5:H7)
10								
11	**Annual Growth**	=((B7/B5)^(1/(A7-A5+1)))	=((C7/C5)^(1/(B7-B5+1)))	=((D7/D5)^(1/(C7-C5+1)))	=((E7/E5)^(1/(D7-D5+1)))	=((F7/F5)^(1/(E7-E5+1)))	=((G7/G5)^(1/(F7-F5+1)))	=((H7/H5)^(1/(G7-G5+1)))
12	**Earliest Period**	=((B6/B5)^(1/(A6-A5+1)))	=((C6/C5)^(1/(B6-B5+1)))	=((D6/D5)^(1/(C6-C5+1)))	=((E6/E5)^(1/(D6-D5+1)))	=((F6/F5)^(1/(E6-E5+1)))	=((G6/G5)^(1/(F6-F5+1)))	=((H6/H5)^(1/(G6-G5+1)))
13	**Latest Period**	=((B7/B6)^(1/(A7-A6+1)))	=((C7/C6)^(1/(B7-B6+1)))	=((D7/D6)^(1/(C7-C6+1)))	=((E7/E6)^(1/(D7-D6+1)))	=((F7/F6)^(1/(E7-E6+1)))	=((G7/G6)^(1/(F7-F6+1)))	=((H7/H6)^(1/(G7-G6+1)))
14	**Average Growth**	=AVERAGE(B11:B13)	=AVERAGE(C11:C13)	=AVERAGE(D11:D13)	=AVERAGE(E11:E13)	=AVERAGE(F11:F13)	=AVERAGE(G11:G13)	=AVERAGE(H11:H13)
15	**Adjusted Average**	=IF(ISERROR(B14),1,IF(B14>1.2,2-(1/(B14^(1/10))),IF(B14<1,(MAX(B11:B13,1)^(1/4)),B14)))	=IF(ISERROR(C14),1,IF(C14>1.2,2-(1/(C14^(1/10))),IF(C14<1,(MAX(C11:C13,1)^(1/4)),C14)))	=IF(ISERROR(D14),1,IF(D14>1.2,2-(1/(D14^(1/10))),IF(D14<1,(MAX(D11:D13,1)^(1/4)),D14)))	=IF(ISERROR(E14),1,IF(E14>1.2,2-(1/(E14^(1/10))),IF(E14<1,(MAX(E11:E13,1)^(1/4)),E14)))	=IF(ISERROR(F14),1,IF(F14>1.2,2-(1/(F14^(1/10))),IF(F14<1,(MAX(F11:F13,1)^(1/4)),F14)))	=IF(ISERROR(G14),1,IF(G14>1.2,2-(1/(G14^(1/10))),IF(G14<1,(MAX(G11:G13,1)^(1/4)),G14)))	=IF(ISERROR(H14),1,IF(H14>1.2,2-(1/(H14^(1/10))),IF(H14<1,(MAX(H11:H13,1)^(1/4)),H14)))
16								
17	**Projected Percentage of VMT by Vehicle Class**							
18	Forecast Year:	='EXP IN'!B4						
19						**SU**		
20		**MC**	**AUTO**	**LT**	**BUS**	**2A 6T**	**3A**	**4A**
21	**Share**	=B9*(B15^($B$18-$A$7))	=C9*(C15^($B$18-$A$7))	=D9*(D15^($B$18-$A$7))	=E9*(E15^($B$18-$A$7))	=F9*(F15^($B$18-$A$7))	=G9*(G15^($B$18-$A$7))	=H9*(H15^($B$18-$A$7))
22	**Adjusted Share**	=B21/$O$21	=C21/$O$21	=D21/$O$21	=E21/$O$21	=F21/$O$21	=G21/$O$21	=H21/$O$21

RVMT

	I	J	K	L	M	N	O
1							
2							
3	**CMB Single Trailer**			**CMB Multi-trailer**			
4	**CS 4A**	**CS 5A**	**CS 6A**	**CM 5A**	**CM 6A**	**CM 7A**	**Total**
5	=HLOOKUP(I$4,'HPMSIN'!$B$23:$N$30,8,FALSE)	=HLOOKUP(J$4,'HPMSIN'!$B$23:$N$30,8,FALSE)	=HLOOKUP(K$4,'HPMSIN'!$B$23:$N$30,8,FALSE)	=HLOOKUP(L$4,'HPMSIN'!$B$23:$N$30,8,FALSE)	=HLOOKUP(M$4,'HPMSIN'!$B$23:$N$30,8,FALSE)	=HLOOKUP(N$4,'HPMSIN'!$B$23:$N$30,8,FALSE)	=SUM(B5:N5)
6	=HLOOKUP(I$4,'HPMSIN'!$B$43:$N$50,8,FALSE)	=HLOOKUP(J$4,'HPMSIN'!$B$43:$N$50,8,FALSE)	=HLOOKUP(K$4,'HPMSIN'!$B$43:$N$50,8,FALSE)	=HLOOKUP(L$4,'HPMSIN'!$B$43:$N$50,8,FALSE)	=HLOOKUP(M$4,'HPMSIN'!$B$43:$N$50,8,FALSE)	=HLOOKUP(N$4,'HPMSIN'!$B$43:$N$50,8,FALSE)	=SUM(B6:N6)
7	=HLOOKUP(I$4,'HPMSIN'!$B$63:$N$70,8,FALSE)	=HLOOKUP(J$4,'HPMSIN'!$B$63:$N$70,8,FALSE)	=HLOOKUP(K$4,'HPMSIN'!$B$63:$N$70,8,FALSE)	=HLOOKUP(L$4,'HPMSIN'!$B$63:$N$70,8,FALSE)	=HLOOKUP(M$4,'HPMSIN'!$B$63:$N$70,8,FALSE)	=HLOOKUP(N$4,'HPMSIN'!$B$63:$N$70,8,FALSE)	=SUM(B7:N7)
8							
9	=AVERAGE(I5:I7)	=AVERAGE(J5:J7)	=AVERAGE(K5:K7)	=AVERAGE(L5:L7)	=AVERAGE(M5:M7)	=AVERAGE(N5:N7)	
10							
11	=((I7/I5)^(1/(H7-H5+1)))	=((J7/J5)^(1/(I7-I5+1)))	=((K7/K5)^(1/(J7-J5+1)))	=((L7/L5)^(1/(K7-K5+1)))	=((M7/M5)^(1/(L7-L5+1)))	=((N7/N5)^(1/(M7-M5+1)))	
12	=((I6/I5)^(1/(H6-H5+1)))	=((J6/J5)^(1/(I6-I5+1)))	=((K6/K5)^(1/(J6-J5+1)))	=((L6/L5)^(1/(K6-K5+1)))	=((M6/M5)^(1/(L6-L5+1)))	=((N6/N5)^(1/(M6-M5+1)))	
13	=((I7/I6)^(1/(H7-H6+1)))	=((J7/J6)^(1/(I7-I6+1)))	=((K7/K6)^(1/(J7-J6+1)))	=((L7/L6)^(1/(K7-K6+1)))	=((M7/M6)^(1/(L7-L6+1)))	=((N7/N6)^(1/(M7-M6+1)))	
14	=AVERAGE(I11:I13)	=AVERAGE(J11:J13)	=AVERAGE(K11:K13)	=AVERAGE(L11:L13)	=AVERAGE(M11:M13)	=AVERAGE(N11:N13)	
15	=IF(ISERROR(I14),1,IF(I14>1.2,2-(1/(I14^(1/10))),IF(I14<1,(MAX(I11:I13,1)^(1/4)),I14)))	=IF(ISERROR(J14),1,IF(J14>1.2,2-(1/(J14^(1/10))),IF(J14<1,(MAX(J11:J13,1)^(1/4)),J14)))	=IF(ISERROR(K14),1,IF(K14>1.2,2-(1/(K14^(1/10))),IF(K14<1,(MAX(K11:K13,1)^(1/4)),K14)))	=IF(ISERROR(L14),1,IF(L14>1.2,2-(1/(L14^(1/10))),IF(L14<1,(MAX(L11:L13,1)^(1/4)),L14)))	=IF(ISERROR(M14),1,IF(M14>1.2,2-(1/(M14^(1/10))),IF(M14<1,(MAX(M11:M13,1)^(1/4)),M14)))	=IF(ISERROR(N14),1,IF(N14>1.2,2-(1/(N14^(1/10))),IF(N14<1,(MAX(N11:N13,1)^(1/4)),N14)))	
16							
17							
18							
19	**CMB Single Trailer**			**CMB Multi-trailer**			
20	**CS 4A**	**CS 5A**	**CS 6A**	**CM 5A**	**CM 6A**	**CM 7A**	**Total**
21	=I9*(I15^($B$18-$A$7))	=J9*(J15^($B$18-$A$7))	=K9*(K15^($B$18-$A$7))	=L9*(L15^($B$18-$A$7))	=M9*(M15^($B$18-$A$7))	=N9*(N15^($B$18-$A$7))	
22	=I21/$O$21	=J21/$O$21	=K21/$O$21	=L21/$O$21	=M21/$O$21	=N21/$O$21	=SUM(B22:N22)

RVMT

	P	Q	R
1		**Aggregated Model Input Tables**	
2		**Share of VMT Category by Vehicle Class**	
3		**Vehicle Class**	**Projected Share**
4			
5		Autos	=SUM(B22:C22)
6		Pick-ups and SUVs	=SUM(D22)
7		Buses	=SUM(E22)
8		Single Unit trucks	=SUM(F22:H22)
9		Combination trucks	=SUM(I22:N22)
10			
11			
12		**Weight Class**	**Projected Share**
13			
14		0 - 8,000 lb.	=$R$5*REG!I3+$R$6*REG!J3+$R$7*REG!K3+$R$8*REG!L3+$R$9*REG!M3
15		8,000-10,000 lb.	=$R$5*REG!I4+$R$6*REG!J4+$R$7*REG!K4+$R$8*REG!L4+$R$9*REG!M4
16		10,000-12,000 lb.	=$R$5*REG!I5+$R$6*REG!J5+$R$7*REG!K5+$R$8*REG!L5+$R$9*REG!M5
17		12,000-14,000 lb.	=$R$5*REG!I6+$R$6*REG!J6+$R$7*REG!K6+$R$8*REG!L6+$R$9*REG!M6
18		14,000-16,000 lb.	=$R$5*REG!I7+$R$6*REG!J7+$R$7*REG!K7+$R$8*REG!L7+$R$9*REG!M7
19		16,000-18,000 lb.	=$R$5*REG!I8+$R$6*REG!J8+$R$7*REG!K8+$R$8*REG!L8+$R$9*REG!M8
20		18,000-20,000 lb.	=$R$5*REG!I9+$R$6*REG!J9+$R$7*REG!K9+$R$8*REG!L9+$R$9*REG!M9
21		20,000-22,000 lb.	=$R$5*REG!I10+$R$6*REG!J10+$R$7*REG!K10+$R$8*REG!L10+$R$9*REG!M10
22		22,000-24,000 lb.	=$R$5*REG!I11+$R$6*REG!J11+$R$7*REG!K11+$R$8*REG!L11+$R$9*REG!M11
23		24,000-26,000 lb.	=$R$5*REG!I12+$R$6*REG!J12+$R$7*REG!K12+$R$8*REG!L12+$R$9*REG!M12
24		26,000-28,000 lb.	=$R$5*REG!I13+$R$6*REG!J13+$R$7*REG!K13+$R$8*REG!L13+$R$9*REG!M13
25		28,000-30,000 lb.	=$R$5*REG!I14+$R$6*REG!J14+$R$7*REG!K14+$R$8*REG!L14+$R$9*REG!M14
26		30,000-32,000 lb.	=$R$5*REG!I15+$R$6*REG!J15+$R$7*REG!K15+$R$8*REG!L15+$R$9*REG!M15
27		32,000-36,000 lb.	=$R$5*REG!I16+$R$6*REG!J16+$R$7*REG!K16+$R$8*REG!L16+$R$9*REG!M16
28		36,000-40,000 lb.	=$R$5*REG!I17+$R$6*REG!J17+$R$7*REG!K17+$R$8*REG!L17+$R$9*REG!M17
29		40,000-45,000 lb.	=$R$5*REG!I18+$R$6*REG!J18+$R$7*REG!K18+$R$8*REG!L18+$R$9*REG!M18
30		45,000-50,000 lb.	=$R$5*REG!I19+$R$6*REG!J19+$R$7*REG!K19+$R$8*REG!L19+$R$9*REG!M19
31		50,000-55,000 lb.	=$R$5*REG!I20+$R$6*REG!J20+$R$7*REG!K20+$R$8*REG!L20+$R$9*REG!M20
32		55,000-60,000 lb.	=$R$5*REG!I21+$R$6*REG!J21+$R$7*REG!K21+$R$8*REG!L21+$R$9*REG!M21
33		60,000-65,000 lb.	=$R$5*REG!I22+$R$6*REG!J22+$R$7*REG!K22+$R$8*REG!L22+$R$9*REG!M22
34		65,000-70,000 lb.	=$R$5*REG!I23+$R$6*REG!J23+$R$7*REG!K23+$R$8*REG!L23+$R$9*REG!M23
35		70,000-75,000 lb.	=$R$5*REG!I24+$R$6*REG!J24+$R$7*REG!K24+$R$8*REG!L24+$R$9*REG!M24
36		75,000-80,000 lb.	=$R$5*REG!I25+$R$6*REG!J25+$R$7*REG!K25+$R$8*REG!L25+$R$9*REG!M25
37		**Total**	**=SUM(R14:R36)**

UVMT

	A	B	C	D	E	F	G	H
1	**Base Period Percentage of Total VMT**							
2								
3						**SU**		
4	**Year**	**MC**	**AUTO**	**LT**	**BUS**	**2A 6T**	**3A**	**4A**
5	='HPMS IN'!D21	=HLOOKUP(B$4,'HPMS IN'!$B$32:$N$39,8,FALSE)	=HLOOKUP(C$4,'HPMS IN'!$B$32:$N$39,8,FALSE)	=HLOOKUP(D$4,'HPMS IN'!$B$32:$N$39,8,FALSE)	=HLOOKUP(E$4,'HPMS IN'!$B$32:$N$39,8,FALSE)	=HLOOKUP(F$4,'HPMS IN'!$B$32:$N$39,8,FALSE)	=HLOOKUP(G$4,'HPMS IN'!$B$32:$N$39,8,FALSE)	=HLOOKUP(H$4,'HPMS IN'!$B$32:$N$39,8,FALSE)
6	='HPMS IN'!D41	=HLOOKUP(B$4,'HPMS IN'!$B$52:$N$59,8,FALSE)	=HLOOKUP(C$4,'HPMS IN'!$B$52:$N$59,8,FALSE)	=HLOOKUP(D$4,'HPMS IN'!$B$52:$N$59,8,FALSE)	=HLOOKUP(E$4,'HPMS IN'!$B$52:$N$59,8,FALSE)	=HLOOKUP(F$4,'HPMS IN'!$B$52:$N$59,8,FALSE)	=HLOOKUP(G$4,'HPMS IN'!$B$52:$N$59,8,FALSE)	=HLOOKUP(H$4,'HPMS IN'!$B$52:$N$59,8,FALSE)
7	='HPMS IN'!D61	=HLOOKUP(B$4,'HPMS IN'!$B$72:$N$79,8,FALSE)	=HLOOKUP(C$4,'HPMS IN'!$B$72:$N$79,8,FALSE)	=HLOOKUP(D$4,'HPMS IN'!$B$72:$N$79,8,FALSE)	=HLOOKUP(E$4,'HPMS IN'!$B$72:$N$79,8,FALSE)	=HLOOKUP(F$4,'HPMS IN'!$B$72:$N$79,8,FALSE)	=HLOOKUP(G$4,'HPMS IN'!$B$72:$N$79,8,FALSE)	=HLOOKUP(H$4,'HPMS IN'!$B$72:$N$79,8,FALSE)
8								
9	**Average Share**	=AVERAGE(B5:B7)	=AVERAGE(C5:C7)	=AVERAGE(D5:D7)	=AVERAGE(E5:E7)	=AVERAGE(F5:F7)	=AVERAGE(G5:G7)	=AVERAGE(H5:H7)
10								
11	**Annual Growth**	=((B7/B5)^(1/(A7-A5+1)))	=((C7/C5)^(1/(B7-B5+1)))	=((D7/D5)^(1/(C7-C5+1)))	=((E7/E5)^(1/(D7-D5+1)))	=((F7/F5)^(1/(E7-E5+1)))	=((G7/G5)^(1/(F7-F5+1)))	=((H7/H5)^(1/(G7-G5+1)))
12	**Earliest Period**	=((B6/B5)^(1/(A6-A5+1)))	=((C6/C5)^(1/(B6-B5+1)))	=((D6/D5)^(1/(C6-C5+1)))	=((E6/E5)^(1/(D6-D5+1)))	=((F6/F5)^(1/(E6-E5+1)))	=((G6/G5)^(1/(F6-F5+1)))	=((H6/H5)^(1/(G6-G5+1)))
13	**Latest Period**	=((B7/B6)^(1/(A7-A6+1)))	=((C7/C6)^(1/(B7-B6+1)))	=((D7/D6)^(1/(C7-C6+1)))	=((E7/E6)^(1/(D7-D6+1)))	=((F7/F6)^(1/(E7-E6+1)))	=((G7/G6)^(1/(F7-F6+1)))	=((H7/H6)^(1/(G7-G6+1)))
14	**Average Growth**	=AVERAGE(B11:B13)	=AVERAGE(C11:C13)	=AVERAGE(D11:D13)	=AVERAGE(E11:E13)	=AVERAGE(F11:F13)	=AVERAGE(G11:G13)	=AVERAGE(H11:H13)
15	**Adjusted Average**	=IF(ISERROR(B14),1,IF(B14>1.2,2-(1/(B14^(1/10))),IF(B14<1,(MAX(B11:B13,1)^(1/4)),B14)))	=IF(ISERROR(C14),1,IF(C14>1.2,2-(1/(C14^(1/10))),IF(C14<1,(MAX(C11:C13,1)^(1/4)),C14)))	=IF(ISERROR(D14),1,IF(D14>1.2,2-(1/(D14^(1/10))),IF(D14<1,(MAX(D11:D13,1)^(1/4)),D14)))	=IF(ISERROR(E14),1,IF(E14>1.2,2-(1/(E14^(1/10))),IF(E14<1,(MAX(E11:E13,1)^(1/4)),E14)))	=IF(ISERROR(F14),1,IF(F14>1.2,2-(1/(F14^(1/10))),IF(F14<1,(MAX(F11:F13,1)^(1/4)),F14)))	=IF(ISERROR(G14),1,IF(G14>1.2,2-(1/(G14^(1/10))),IF(G14<1,(MAX(G11:G13,1)^(1/4)),G14)))	=IF(ISERROR(H14),1,IF(H14>1.2,2-(1/(H14^(1/10))),IF(H14<1,(MAX(H11:H13,1)^(1/4)),H14)))
16								
17	**Projected Percentage of VMT by Vehicle Class**							
18	Forecast Year:	='EXP IN'!B4						
19						**SU**		
20		**MC**	**AUTO**	**LT**	**BUS**	**2A 6T**	**3A**	**4A**
21	**Share**	=B9*(B15^($B$18-$A$7))	=C9*(C15^($B$18-$A$7))	=D9*(D15^($B$18-$A$7))	=E9*(E15^($B$18-$A$7))	=F9*(F15^($B$18-$A$7))	=G9*(G15^($B$18-$A$7))	=H9*(H15^($B$18-$A$7))
22	**Adjusted Share**	=B21/$O$21	=C21/$O$21	=D21/$O$21	=E21/$O$21	=F21/$O$21	=G21/$O$21	=H21/$O$21

UVMT

	I	J	K	L	M	N	O
1							
2							
3	**CMB Single Trailer**			**CMB Multi-trailer**			
4	**CS 4A**	**CS 5A**	**CS 6A**	**CM 5A**	**CM 6A**	**CM 7A**	**Total**
5	=HLOOKUP(I$4,'HPMSIN'!$B$32:$N$39,8,FALSE)	=HLOOKUP(J$4,'HPMSIN'!$B$32:$N$39,8,FALSE)	=HLOOKUP(K$4,'HPMSIN'!$B$32:$N$39,8,FALSE)	=HLOOKUP(L$4,'HPMSIN'!$B$32:$N$39,8,FALSE)	=HLOOKUP(M$4,'HPMSIN'!$B$32:$N$39,8,FALSE)	=HLOOKUP(N$4,'HPMSIN'!$B$32:$N$39,8,FALSE)	=SUM(B5:N5)
6	=HLOOKUP(I$4,'HPMSIN'!$B$52:$N$59,8,FALSE)	=HLOOKUP(J$4,'HPMSIN'!$B$52:$N$59,8,FALSE)	=HLOOKUP(K$4,'HPMSIN'!$B$52:$N$59,8,FALSE)	=HLOOKUP(L$4,'HPMSIN'!$B$52:$N$59,8,FALSE)	=HLOOKUP(M$4,'HPMSIN'!$B$52:$N$59,8,FALSE)	=HLOOKUP(N$4,'HPMSIN'!$B$52:$N$59,8,FALSE)	=SUM(B6:N6)
7	=HLOOKUP(I$4,'HPMSIN'!$B$72:$N$79,8,FALSE)	=HLOOKUP(J$4,'HPMSIN'!$B$72:$N$79,8,FALSE)	=HLOOKUP(K$4,'HPMSIN'!$B$72:$N$79,8,FALSE)	=HLOOKUP(L$4,'HPMSIN'!$B$72:$N$79,8,FALSE)	=HLOOKUP(M$4,'HPMSIN'!$B$72:$N$79,8,FALSE)	=HLOOKUP(N$4,'HPMSIN'!$B$72:$N$79,8,FALSE)	=SUM(B7:N7)
8							
9	=AVERAGE(I5:I7)	=AVERAGE(J5:J7)	=AVERAGE(K5:K7)	=AVERAGE(L5:L7)	=AVERAGE(M5:M7)	=AVERAGE(N5:N7)	
10							
11	=((I7/I5)^(1/(H7-H5+1)))	=((J7/J5)^(1/(I7-I5+1)))	=((K7/K5)^(1/(J7-J5+1)))	=((L7/L5)^(1/(K7-K5+1)))	=((M7/M5)^(1/(L7-L5+1)))	=((N7/N5)^(1/(M7-M5+1)))	
12	=((I6/I5)^(1/(H6-H5+1)))	=((J6/J5)^(1/(I6-I5+1)))	=((K6/K5)^(1/(J6-J5+1)))	=((L6/L5)^(1/(K6-K5+1)))	=((M6/M5)^(1/(L6-L5+1)))	=((N6/N5)^(1/(M6-M5+1)))	
13	=((I7/I6)^(1/(H7-H6+1)))	=((J7/J6)^(1/(I7-I6+1)))	=((K7/K6)^(1/(J7-J6+1)))	=((L7/L6)^(1/(K7-K6+1)))	=((M7/M6)^(1/(L7-L6+1)))	=((N7/N6)^(1/(M7-M6+1)))	
14	=AVERAGE(I11:I13)	=AVERAGE(J11:J13)	=AVERAGE(K11:K13)	=AVERAGE(L11:L13)	=AVERAGE(M11:M13)	=AVERAGE(N11:N13)	
15	=IF(ISERROR(I14),1,IF(I14>1.2,2-(1/(I14^(1/10))),IF(I14<1,(MAX(I11:I13,1)^(1/4)),I14)))	=IF(ISERROR(J14),1,IF(J14>1.2,2-(1/(J14^(1/10))),IF(J14<1,(MAX(J11:J13,1)^(1/4)),J14)))	=IF(ISERROR(K14),1,IF(K14>1.2,2-(1/(K14^(1/10))),IF(K14<1,(MAX(K11:K13,1)^(1/4)),K14)))	=IF(ISERROR(L14),1,IF(L14>1.2,2-(1/(L14^(1/10))),IF(L14<1,(MAX(L11:L13,1)^(1/4)),L14)))	=IF(ISERROR(M14),1,IF(M14>1.2,2-(1/(M14^(1/10))),IF(M14<1,(MAX(M11:M13,1)^(1/4)),M14)))	=IF(ISERROR(N14),1,IF(N14>1.2,2-(1/(N14^(1/10))),IF(N14<1,(MAX(N11:N13,1)^(1/4)),N14)))	
16							
17							
18							
19	**CMB Single Trailer**			**CMB Multi-trailer**			
20	**CS 4A**	**CS 5A**	**CS 6A**	**CM 5A**	**CM 6A**	**CM 7A**	**Total**
21	=I9*(I15^($B$18-$A$7))	=J9*(J15^($B$18-$A$7))	=K9*(K15^($B$18-$A$7))	=L9*(L15^($B$18-$A$7))	=M9*(M15^($B$18-$A$7))	=N9*(N15^($B$18-$A$7))	
22	=I21/$O$21	=J21/$O$21	=K21/$O$21	=L21/$O$21	=M21/$O$21	=N21/$O$21	=SUM(B22:N22)

UVMT

	P	Q	R
1		**Aggregated Model Input Tables**	
2		**Share of VMT Category by Vehicle Class**	
3		**Vehicle Class**	**Projected Share**
4			
5		Autos	=SUM(B22:C22)
6		Pick-ups and SUVs	=SUM(D22)
7		Buses	=SUM(E22)
8		Single Unit trucks	=SUM(F22:H22)
9		Combination trucks	=SUM(I22:N22)
10			
11			
12		**Weight Class**	**Projected Share**
13			
14		0 - 8,000 lb.	=$R$5*REG!I3+$R$6*REG!J3+$R$7*REG!K3+$R$8*REG!L3+$R$9*REG!M3
15		8,000-10,000 lb.	=$R$5*REG!I4+$R$6*REG!J4+$R$7*REG!K4+$R$8*REG!L4+$R$9*REG!M4
16		10,000-12,000 lb.	=$R$5*REG!I5+$R$6*REG!J5+$R$7*REG!K5+$R$8*REG!L5+$R$9*REG!M5
17		12,000-14,000 lb.	=$R$5*REG!I6+$R$6*REG!J6+$R$7*REG!K6+$R$8*REG!L6+$R$9*REG!M6
18		14,000-16,000 lb.	=$R$5*REG!I7+$R$6*REG!J7+$R$7*REG!K7+$R$8*REG!L7+$R$9*REG!M7
19		16,000-18,000 lb.	=$R$5*REG!I8+$R$6*REG!J8+$R$7*REG!K8+$R$8*REG!L8+$R$9*REG!M8
20		18,000-20,000 lb.	=$R$5*REG!I9+$R$6*REG!J9+$R$7*REG!K9+$R$8*REG!L9+$R$9*REG!M9
21		20,000-22,000 lb.	=$R$5*REG!I10+$R$6*REG!J10+$R$7*REG!K10+$R$8*REG!L10+$R$9*REG!M10
22		22,000-24,000 lb.	=$R$5*REG!I11+$R$6*REG!J11+$R$7*REG!K11+$R$8*REG!L11+$R$9*REG!M11
23		24,000-26,000 lb.	=$R$5*REG!I12+$R$6*REG!J12+$R$7*REG!K12+$R$8*REG!L12+$R$9*REG!M12
24		26,000-28,000 lb.	=$R$5*REG!I13+$R$6*REG!J13+$R$7*REG!K13+$R$8*REG!L13+$R$9*REG!M13
25		28,000-30,000 lb.	=$R$5*REG!I14+$R$6*REG!J14+$R$7*REG!K14+$R$8*REG!L14+$R$9*REG!M14
26		30,000-32,000 lb.	=$R$5*REG!I15+$R$6*REG!J15+$R$7*REG!K15+$R$8*REG!L15+$R$9*REG!M15
27		32,000-36,000 lb.	=$R$5*REG!I16+$R$6*REG!J16+$R$7*REG!K16+$R$8*REG!L16+$R$9*REG!M16
28		36,000-40,000 lb.	=$R$5*REG!I17+$R$6*REG!J17+$R$7*REG!K17+$R$8*REG!L17+$R$9*REG!M17
29		40,000-45,000 lb.	=$R$5*REG!I18+$R$6*REG!J18+$R$7*REG!K18+$R$8*REG!L18+$R$9*REG!M18
30		45,000-50,000 lb.	=$R$5*REG!I19+$R$6*REG!J19+$R$7*REG!K19+$R$8*REG!L19+$R$9*REG!M19
31		50,000-55,000 lb.	=$R$5*REG!I20+$R$6*REG!J20+$R$7*REG!K20+$R$8*REG!L20+$R$9*REG!M20
32		55,000-60,000 lb.	=$R$5*REG!I21+$R$6*REG!J21+$R$7*REG!K21+$R$8*REG!L21+$R$9*REG!M21
33		60,000-65,000 lb.	=$R$5*REG!I22+$R$6*REG!J22+$R$7*REG!K22+$R$8*REG!L22+$R$9*REG!M22
34		65,000-70,000 lb.	=$R$5*REG!I23+$R$6*REG!J23+$R$7*REG!K23+$R$8*REG!L23+$R$9*REG!M23
35		70,000-75,000 lb.	=$R$5*REG!I24+$R$6*REG!J24+$R$7*REG!K24+$R$8*REG!L24+$R$9*REG!M24
36		75,000-80,000 lb.	=$R$5*REG!I25+$R$6*REG!J25+$R$7*REG!K25+$R$8*REG!L25+$R$9*REG!M25
37		**Total**	**=SUM(R14:R36)**

CONFIG

	A	B	C	D	E	F	G
1	**Proportion of Vehicle Weight [a.]**						
2		**AUTOS**	**PICKUPS**	**BUSES**	**SU2**	**SU3**	**SU4+**
3	Axle 1	0.6	0.7	=F3	=F3	=16/48	=16/56
4	Axle 2	0.4	0.3	=F4	=F4	=32/48	=40/56
5	Axle 3						
6	Axle 4						
7	Axle 5						
8							
9	**Standard ESAL Coefficient**						
10	Axle 1	18000	18000	18000	18000	18000	18000
11	Axle 2	18000	18000	='MAB DERIV'!$J$3*1000	18000	='MAB DERIV'!$J$3*1000	='MAB DERIV'!$J$4*1000
12	Axle 3						
13	Axle 4						
14	Axle 5						
15							
16	**ESAL by Vehicle Weight**						
17	**WGT**	**AUTOS**	**PICKUPS**	**BUSES**	**SU2**	**SU3**	**SU4+**
18	0-8	=(((REG!AE3*CONFIG!$B$3)/CONFIG!$B$10)^4)+(((REG!AE3*$B$4)/$B$11)^4)	=(((REG!AE3*CONFIG!$C$3)/CONFIG!$C$10)^4)+(((REG!AE3*$C$4)/$C$11)^4)	=(((REG!$AF$3*CONFIG!$D$3)/CONFIG!$D$10)^4)+(((REG!AF3*$D$4)/$D$11)^4)	=(((REG!$AF$3*CONFIG!$E$3)/CONFIG!$E$10)^4)+(((REG!AF3*$E$4)/$E$11)^4)	=(((REG!$AF$3*CONFIG!$F$3)/CONFIG!$F$10)^4)+(((REG!AF3*$F$4)/$F$11)^4)	=(((REG!$AF$3*CONFIG!$G$3)/CONFIG!$G$10)^4)+(((REG!AF3*$G$4)/$G$11)^4)
19	8-10	=(((REG!$AC$4*CONFIG!$B$3)/CONFIG!$B$10)^4)+(((REG!$AC$4*$B$4)/$B$11)^4)	=(((REG!$AC$4*CONFIG!$C$3)/CONFIG!$C$10)^4)+(((REG!$AC$4*$C$4)/$C$11)^4)	=(((REG!$AC$4*CONFIG!$D$3)/CONFIG!$D$10)^4)+(((REG!$AC$4*$D$4)/$D$11)^4)	=(((REG!$AC$4*CONFIG!$E$3)/CONFIG!$E$10)^4)+(((REG!$AC$4*$E$4)/$E$11)^4)	=(((REG!$AC$4*CONFIG!$F$3)/CONFIG!$F$10)^4)+(((REG!$AC$4*$F$4)/$F$11)^4)	=(((REG!$AC$4*CONFIG!$G$3)/CONFIG!$G$10)^4)+(((REG!$AC$4*$G$4)/$G$11)^4)
20	10-12	=(((REG!$AC$5*CONFIG!$B$3)/CONFIG!$B$10)^4)+(((REG!$AC$5*$B$4)/$B$11)^4)	=(((REG!$AC$5*CONFIG!$C$3)/CONFIG!$C$10)^4)+(((REG!$AC$5*$C$4)/$C$11)^4)	=(((REG!$AC$5*CONFIG!$D$3)/CONFIG!$D$10)^4)+(((REG!$AC$5*$D$4)/$D$11)^4)	=(((REG!$AC$5*CONFIG!$E$3)/CONFIG!$E$10)^4)+(((REG!$AC$5*$E$4)/$E$11)^4)	=(((REG!$AC$5*CONFIG!$F$3)/CONFIG!$F$10)^4)+(((REG!$AC$5*$F$4)/$F$11)^4)	=(((REG!$AC$5*CONFIG!$G$3)/CONFIG!$G$10)^4)+(((REG!$AC$5*$G$4)/$G$11)^4)
21	12-14	=(((REG!$AC$6*CONFIG!$B$3)/CONFIG!$B$10)^4)+(((REG!$AC$6*$B$4)/$B$11)^4)	=(((REG!$AC$6*CONFIG!$C$3)/CONFIG!$C$10)^4)+(((REG!$AC$6*$C$4)/$C$11)^4)	=(((REG!$AC$6*CONFIG!$D$3)/CONFIG!$D$10)^4)+(((REG!$AC$6*$D$4)/$D$11)^4)	=(((REG!$AC$6*CONFIG!$E$3)/CONFIG!$E$10)^4)+(((REG!$AC$6*$E$4)/$E$11)^4)	=(((REG!$AC$6*CONFIG!$F$3)/CONFIG!$F$10)^4)+(((REG!$AC$6*$F$4)/$F$11)^4)	=(((REG!$AC$6*CONFIG!$G$3)/CONFIG!$G$10)^4)+(((REG!$AC$6*$G$4)/$G$11)^4)
22	14-16	=(((REG!$AC$7*CONFIG!$B$3)/CONFIG!$B$10)^4)+(((REG!$AC$7*$B$4)/$B$11)^4)	=(((REG!$AC$7*CONFIG!$C$3)/CONFIG!$C$10)^4)+(((REG!$AC$7*$C$4)/$C$11)^4)	=(((REG!$AC$7*CONFIG!$D$3)/CONFIG!$D$10)^4)+(((REG!$AC$7*$D$4)/$D$11)^4)	=(((REG!$AC$7*CONFIG!$E$3)/CONFIG!$E$10)^4)+(((REG!$AC$7*$E$4)/$E$11)^4)	=(((REG!$AC$7*CONFIG!$F$3)/CONFIG!$F$10)^4)+(((REG!$AC$7*$F$4)/$F$11)^4)	=(((REG!$AC$7*CONFIG!$G$3)/CONFIG!$G$10)^4)+(((REG!$AC$7*$G$4)/$G$11)^4)
23	16-18	=(((REG!$AC$8*CONFIG!$B$3)/CONFIG!$B$10)^4)+(((REG!$AC$8*$B$4)/$B$11)^4)	=(((REG!$AC$8*CONFIG!$C$3)/CONFIG!$C$10)^4)+(((REG!$AC$8*$C$4)/$C$11)^4)	=(((REG!$AC$8*CONFIG!$D$3)/CONFIG!$D$10)^4)+(((REG!$AC$8*$D$4)/$D$11)^4)	=(((REG!$AC$8*CONFIG!$E$3)/CONFIG!$E$10)^4)+(((REG!$AC$8*$E$4)/$E$11)^4)	=(((REG!$AC$8*CONFIG!$F$3)/CONFIG!$F$10)^4)+(((REG!$AC$8*$F$4)/$F$11)^4)	=(((REG!$AC$8*CONFIG!$G$3)/CONFIG!$G$10)^4)+(((REG!$AC$8*$G$4)/$G$11)^4)
24	18-20	=(((REG!$AC$9*CONFIG!$B$3)/CONFIG!$B$10)^4)+(((REG!$AC$9*$B$4)/$B$11)^4)	=(((REG!$AC$9*CONFIG!$C$3)/CONFIG!$C$10)^4)+(((REG!$AC$9*$C$4)/$C$11)^4)	=(((REG!$AC$9*CONFIG!$D$3)/CONFIG!$D$10)^4)+(((REG!$AC$9*$D$4)/$D$11)^4)	=(((REG!$AC$9*CONFIG!$E$3)/CONFIG!$E$10)^4)+(((REG!$AC$9*$E$4)/$E$11)^4)	=(((REG!$AC$9*CONFIG!$F$3)/CONFIG!$F$10)^4)+(((REG!$AC$9*$F$4)/$F$11)^4)	=(((REG!$AC$9*CONFIG!$G$3)/CONFIG!$G$10)^4)+(((REG!$AC$9*$G$4)/$G$11)^4)
25	20-22	=(((REG!$AC$10*CONFIG!$B$3)/CONFIG!$B$10)^4)+(((REG!$AC$10*$B$4)/$B$11)^4)	=(((REG!$AC$10*CONFIG!$C$3)/CONFIG!$C$10)^4)+(((REG!$AC$10*$C$4)/$C$11)^4)	=(((REG!$AC$10*CONFIG!$D$3)/CONFIG!$D$10)^4)+(((REG!$AC$10*$D$4)/$D$11)^4)	=(((REG!$AC$10*CONFIG!$E$3)/CONFIG!$E$10)^4)+(((REG!$AC$10*$E$4)/$E$11)^4)	=(((REG!$AC$10*CONFIG!$F$3)/CONFIG!$F$10)^4)+(((REG!$AC$10*$F$4)/$F$11)^4)	=(((REG!$AC$10*CONFIG!$G$3)/CONFIG!$G$10)^4)+(((REG!$AC$10*$G$4)/$G$11)^4)
26	22-24	=(((REG!$AC$11*CONFIG!$B$3)/CONFIG!$B$10)^4)+(((REG!$AC$11*$B$4)/$B$11)^4)	=(((REG!$AC$11*CONFIG!$C$3)/CONFIG!$C$10)^4)+(((REG!$AC$11*$C$4)/$C$11)^4)	=(((REG!$AC$11*CONFIG!$D$3)/CONFIG!$D$10)^4)+(((REG!$AC$11*$D$4)/$D$11)^4)	=(((REG!$AC$11*CONFIG!$E$3)/CONFIG!$E$10)^4)+(((REG!$AC$11*$E$4)/$E$11)^4)	=(((REG!$AC$11*CONFIG!$F$3)/CONFIG!$F$10)^4)+(((REG!$AC$11*$F$4)/$F$11)^4)	=(((REG!$AC$11*CONFIG!$G$3)/CONFIG!$G$10)^4)+(((REG!$AC$11*$G$4)/$G$11)^4)

CONFIG

	A	B	C	D	E	F	G
27	24-26	=(((REG!$AC$12*CONFIG!$B$3)/CONFIG!$B$10)^4)+(((REG!$AC$12*$B$4)/$B$11)^4)	=(((REG!$AC$12*CONFIG!$C$3)/CONFIG!$C$10)^4)+(((REG!$AC$12*$C$4)/$C$11)^4)	=(((REG!$AC$12*CONFIG!$D$3)/CONFIG!$D$10)^4)+(((REG!$AC$12*$D$4)/$D$11)^4)	=(((REG!$AC$12*CONFIG!$E$3)/CONFIG!$E$10)^4)+(((REG!$AC$12*$E$4)/$E$11)^4)	=(((REG!$AC$12*CONFIG!$F$3)/CONFIG!$F$10)^4)+(((REG!$AC$12*$F$4)/$F$11)^4)	=(((REG!$AC$12*CONFIG!$G$3)/CONFIG!$G$10)^4)+(((REG!$AC$12*$G$4)/$G$11)^4)
28	26-28	=(((REG!$AC$13*CONFIG!$B$3)/CONFIG!$B$10)^4)+(((REG!$AC$13*$B$4)/$B$11)^4)	=(((REG!$AC$13*CONFIG!$C$3)/CONFIG!$C$10)^4)+(((REG!$AC$13*$C$4)/$C$11)^4)	=(((REG!$AC$13*CONFIG!$D$3)/CONFIG!$D$10)^4)+(((REG!$AC$13*$D$4)/$D$11)^4)	=(((REG!$AC$13*CONFIG!$E$3)/CONFIG!$E$10)^4)+(((REG!$AC$13*$E$4)/$E$11)^4)	=(((REG!$AC$13*CONFIG!$F$3)/CONFIG!$F$10)^4)+(((REG!$AC$13*$F$4)/$F$11)^4)	=(((REG!$AC$13*CONFIG!$G$3)/CONFIG!$G$10)^4)+(((REG!$AC$13*$G$4)/$G$11)^4)
29	28-30	=(((REG!$AC$14*CONFIG!$B$3)/CONFIG!$B$10)^4)+(((REG!$AC$14*$B$4)/$B$11)^4)	=(((REG!$AC$14*CONFIG!$C$3)/CONFIG!$C$10)^4)+(((REG!$AC$14*$C$4)/$C$11)^4)	=(((REG!$AC$14*CONFIG!$D$3)/CONFIG!$D$10)^4)+(((REG!$AC$14*$D$4)/$D$11)^4)	=(((REG!$AC$14*CONFIG!$E$3)/CONFIG!$E$10)^4)+(((REG!$AC$14*$E$4)/$E$11)^4)	=(((REG!$AC$14*CONFIG!$F$3)/CONFIG!$F$10)^4)+(((REG!$AC$14*$F$4)/$F$11)^4)	=(((REG!$AC$14*CONFIG!$G$3)/CONFIG!$G$10)^4)+(((REG!$AC$14*$G$4)/$G$11)^4)
30	30-32	=(((REG!$AC$15*CONFIG!$B$3)/CONFIG!$B$10)^4)+(((REG!$AC$15*$B$4)/$B$11)^4)	=(((REG!$AC$15*CONFIG!$C$3)/CONFIG!$C$10)^4)+(((REG!$AC$15*$C$4)/$C$11)^4)	=(((REG!$AC$15*CONFIG!$D$3)/CONFIG!$D$10)^4)+(((REG!$AC$15*$D$4)/$D$11)^4)	=(((REG!$AC$15*CONFIG!$E$3)/CONFIG!$E$10)^4)+(((REG!$AC$15*$E$4)/$E$11)^4)	=(((REG!$AC$15*CONFIG!$F$3)/CONFIG!$F$10)^4)+(((REG!$AC$15*$F$4)/$F$11)^4)	=(((REG!$AC$15*CONFIG!$G$3)/CONFIG!$G$10)^4)+(((REG!$AC$15*$G$4)/$G$11)^4)
31	32-36	=(((REG!$AC$16*CONFIG!$B$3)/CONFIG!$B$10)^4)+(((REG!$AC$16*$B$4)/$B$11)^4)	=(((REG!$AC$16*CONFIG!$C$3)/CONFIG!$C$10)^4)+(((REG!$AC$16*$C$4)/$C$11)^4)	=(((REG!$AC$16*CONFIG!$D$3)/CONFIG!$D$10)^4)+(((REG!$AC$16*$D$4)/$D$11)^4)	=(((REG!$AC$16*CONFIG!$E$3)/CONFIG!$E$10)^4)+(((REG!$AC$16*$E$4)/$E$11)^4)	=(((REG!$AC$16*CONFIG!$F$3)/CONFIG!$F$10)^4)+(((REG!$AC$16*$F$4)/$F$11)^4)	=(((REG!$AC$16*CONFIG!$G$3)/CONFIG!$G$10)^4)+(((REG!$AC$16*$G$4)/$G$11)^4)
32	36-40	=(((REG!$AC$17*CONFIG!$B$3)/CONFIG!$B$10)^4)+(((REG!$AC$17*$B$4)/$B$11)^4)	=(((REG!$AC$17*CONFIG!$C$3)/CONFIG!$C$10)^4)+(((REG!$AC$17*$C$4)/$C$11)^4)	=(((REG!$AC$17*CONFIG!$D$3)/CONFIG!$D$10)^4)+(((REG!$AC$17*$D$4)/$D$11)^4)	=(((REG!$AC$17*CONFIG!$E$3)/CONFIG!$E$10)^4)+(((REG!$AC$17*$E$4)/$E$11)^4)	=(((REG!$AC$17*CONFIG!$F$3)/CONFIG!$F$10)^4)+(((REG!$AC$17*$F$4)/$F$11)^4)	=(((REG!$AC$17*CONFIG!$G$3)/CONFIG!$G$10)^4)+(((REG!$AC$17*$G$4)/$G$11)^4)
33	40-45	=(((REG!$AC$18*CONFIG!$B$3)/CONFIG!$B$10)^4)+(((REG!$AC$18*$B$4)/$B$11)^4)	=(((REG!$AC$18*CONFIG!$C$3)/CONFIG!$C$10)^4)+(((REG!$AC$18*$C$4)/$C$11)^4)	=(((REG!$AC$18*CONFIG!$D$3)/CONFIG!$D$10)^4)+(((REG!$AC$18*$D$4)/$D$11)^4)	=(((REG!$AC$18*CONFIG!$E$3)/CONFIG!$E$10)^4)+(((REG!$AC$18*$E$4)/$E$11)^4)	=(((REG!$AC$18*CONFIG!$F$3)/CONFIG!$F$10)^4)+(((REG!$AC$18*$F$4)/$F$11)^4)	=(((REG!$AC$18*CONFIG!$G$3)/CONFIG!$G$10)^4)+(((REG!$AC$18*$G$4)/$G$11)^4)
34	45-50	=(((REG!$AC$19*CONFIG!$B$3)/CONFIG!$B$10)^4)+(((REG!$AC$19*$B$4)/$B$11)^4)	=(((REG!$AC$19*CONFIG!$C$3)/CONFIG!$C$10)^4)+(((REG!$AC$19*$C$4)/$C$11)^4)	=(((REG!$AC$19*CONFIG!$D$3)/CONFIG!$D$10)^4)+(((REG!$AC$19*$D$4)/$D$11)^4)	=(((REG!$AC$19*CONFIG!$E$3)/CONFIG!$E$10)^4)+(((REG!$AC$19*$E$4)/$E$11)^4)	=(((REG!$AC$19*CONFIG!$F$3)/CONFIG!$F$10)^4)+(((REG!$AC$19*$F$4)/$F$11)^4)	=(((REG!$AC$19*CONFIG!$G$3)/CONFIG!$G$10)^4)+(((REG!$AC$19*$G$4)/$G$11)^4)
35	50-55	=(((REG!$AC$20*CONFIG!$B$3)/CONFIG!$B$10)^4)+(((REG!$AC$20*$B$4)/$B$11)^4)	=(((REG!$AC$20*CONFIG!$C$3)/CONFIG!$C$10)^4)+(((REG!$AC$20*$C$4)/$C$11)^4)	=(((REG!$AC$20*CONFIG!$D$3)/CONFIG!$D$10)^4)+(((REG!$AC$20*$D$4)/$D$11)^4)	=(((REG!$AC$20*CONFIG!$E$3)/CONFIG!$E$10)^4)+(((REG!$AC$20*$E$4)/$E$11)^4)	=(((REG!$AC$20*CONFIG!$F$3)/CONFIG!$F$10)^4)+(((REG!$AC$20*$F$4)/$F$11)^4)	=(((REG!$AC$20*CONFIG!$G$3)/CONFIG!$G$10)^4)+(((REG!$AC$20*$G$4)/$G$11)^4)
36	55-60	=(((REG!$AC$21*CONFIG!$B$3)/CONFIG!$B$10)^4)+(((REG!$AC$21*$B$4)/$B$11)^4)	=(((REG!$AC$21*CONFIG!$C$3)/CONFIG!$C$10)^4)+(((REG!$AC$21*$C$4)/$C$11)^4)	=(((REG!$AC$21*CONFIG!$D$3)/CONFIG!$D$10)^4)+(((REG!$AC$21*$D$4)/$D$11)^4)	=(((REG!$AC$21*CONFIG!$E$3)/CONFIG!$E$10)^4)+(((REG!$AC$21*$E$4)/$E$11)^4)	=(((REG!$AC$21*CONFIG!$F$3)/CONFIG!$F$10)^4)+(((REG!$AC$21*$F$4)/$F$11)^4)	=(((REG!$AC$21*CONFIG!$G$3)/CONFIG!$G$10)^4)+(((REG!$AC$21*$G$4)/$G$11)^4)
37	60-65	=(((REG!$AC$22*CONFIG!$B$3)/CONFIG!$B$10)^4)+(((REG!$AC$22*$B$4)/$B$11)^4)	=(((REG!$AC$22*CONFIG!$C$3)/CONFIG!$C$10)^4)+(((REG!$AC$22*$C$4)/$C$11)^4)	=(((REG!$AC$22*CONFIG!$D$3)/CONFIG!$D$10)^4)+(((REG!$AC$22*$D$4)/$D$11)^4)	=(((REG!$AC$22*CONFIG!$E$3)/CONFIG!$E$10)^4)+(((REG!$AC$22*$E$4)/$E$11)^4)	=(((REG!$AC$22*CONFIG!$F$3)/CONFIG!$F$10)^4)+(((REG!$AC$22*$F$4)/$F$11)^4)	=(((REG!$AC$22*CONFIG!$G$3)/CONFIG!$G$10)^4)+(((REG!$AC$22*$G$4)/$G$11)^4)
38	65-70	=(((REG!$AC$23*CONFIG!$B$3)/CONFIG!$B$10)^4)+(((REG!$AC$23*$B$4)/$B$11)^4)	=(((REG!$AC$23*CONFIG!$C$3)/CONFIG!$C$10)^4)+(((REG!$AC$23*$C$4)/$C$11)^4)	=(((REG!$AC$23*CONFIG!$D$3)/CONFIG!$D$10)^4)+(((REG!$AC$23*$D$4)/$D$11)^4)	=(((REG!$AC$23*CONFIG!$E$3)/CONFIG!$E$10)^4)+(((REG!$AC$23*$E$4)/$E$11)^4)	=(((REG!$AC$23*CONFIG!$F$3)/CONFIG!$F$10)^4)+(((REG!$AC$23*$F$4)/$F$11)^4)	=(((REG!$AC$23*CONFIG!$G$3)/CONFIG!$G$10)^4)+(((REG!$AC$23*$G$4)/$G$11)^4)
39	70-75	=(((REG!$AC$24*CONFIG!$B$3)/CONFIG!$B$10)^4)+(((REG!$AC$24*$B$4)/$B$11)^4)	=(((REG!$AC$24*CONFIG!$C$3)/CONFIG!$C$10)^4)+(((REG!$AC$24*$C$4)/$C$11)^4)	=(((REG!$AC$24*CONFIG!$D$3)/CONFIG!$D$10)^4)+(((REG!$AC$24*$D$4)/$D$11)^4)	=(((REG!$AC$24*CONFIG!$E$3)/CONFIG!$E$10)^4)+(((REG!$AC$24*$E$4)/$E$11)^4)	=(((REG!$AC$24*CONFIG!$F$3)/CONFIG!$F$10)^4)+(((REG!$AC$24*$F$4)/$F$11)^4)	=(((REG!$AC$24*CONFIG!$G$3)/CONFIG!$G$10)^4)+(((REG!$AC$24*$G$4)/$G$11)^4)
40	75-80	=(((REG!$AC$25*CONFIG!$B$3)/CONFIG!$B$10)^4)+(((REG!$AC$25*$B$4)/$B$11)^4)	=(((REG!$AC$25*CONFIG!$C$3)/CONFIG!$C$10)^4)+(((REG!$AC$25*$C$4)/$C$11)^4)	=(((REG!$AC$25*CONFIG!$D$3)/CONFIG!$D$10)^4)+(((REG!$AC$25*$D$4)/$D$11)^4)	=(((REG!$AC$25*CONFIG!$E$3)/CONFIG!$E$10)^4)+(((REG!$AC$25*$E$4)/$E$11)^4)	=(((REG!$AC$25*CONFIG!$F$3)/CONFIG!$F$10)^4)+(((REG!$AC$25*$F$4)/$F$11)^4)	=(((REG!$AC$25*CONFIG!$G$3)/CONFIG!$G$10)^4)+(((REG!$AC$25*$G$4)/$G$11)^4)

CONFIG

	H	I	J	K	L	M
1						
2	**CS 4A**	**CS 5A**	**CS 6A**	**CM 5A**	**CM 6A**	**CM 7A**
3	=12/80	=12/80	=12/88	=9/80	=AVERAGE(K3,M3)	=9/101
4	=34/80	=34/80	=34/88	=20/80	=AVERAGE(K4,M4)	=31/101
5	=34/80	=34/80	=42/88	=19/80	=AVERAGE(K5,M5)	=30/101
6				=16/80	=AVERAGE(K6,M6)	=18/101
7				=16/80	=AVERAGE(K7,M7)	=15/101
8						
9						
10	18000	18000	18000	18000	18000	18000
11	18000	='MAB DERIV'!$J$3*1000	='MAB DERIV'!$J$3*1000	18000	='MAB DERIV'!$J$3*1000	='MAB DERIV'!$J$3*1000
12	='MAB DERIV'!$J$3*1000	='MAB DERIV'!$J$3*1000	='MAB DERIV'!$J$4*1000	18000	18000	='MAB DERIV'!$J$3*1000
13				18000	18000	18000
14				18000	18000	18000
15						
16						
17	**CS 4A**	**CS 5A**	**CS 6A**	**CM 5A**	**CM 6A**	**CM 7A**
18	=(((REG!$AF$3*CONFIG!H3)/CONFIG!H10)^4)+(((REG!$AF3*H4)/H11)^4)+(((REG!$AF$3*CONFIG!H5)/H12)^4)	=(((REG!$AF$3*CONFIG!I3)/CONFIG!I10)^4)+(((REG!$AF3*I4)/I11)^4)+(((REG!$AF$3*CONFIG!I5)/I12)^4)	=(((REG!$AF$3*CONFIG!J3)/CONFIG!J10)^4)+(((REG!$AF3*J4)/J11)^4)+(((REG!$AF$3*CONFIG!J5)/J12)^4)	=(((REG!$AF$3*CONFIG!$K$3)/CONFIG!$K$10)^4)+(((REG!$AF3*$K$4)/$K$11)^4)+(((REG!$AF$3*CONFIG!$K$5)/$K$12)^4)+(((REG!$AF$3*CONFIG!$K$6)/$K$13)^4)+(((REG!$AF$3*CONFIG!$K$7)/$K$14)^4)	=(((REG!$AF$3*CONFIG!$L$3)/CONFIG!$L$10)^4)+(((REG!$AF3*$L$4)/$L$11)^4)+(((REG!$AF$3*CONFIG!$L$5)/$L$12)^4)+(((REG!$AF$3*CONFIG!$L$6)/$L$13)^4)+(((REG!$AF$3*CONFIG!$L$7)/$L$14)^4)	=(((REG!$AF$3*CONFIG!M3)/CONFIG!M10)^4)+(((REG!$AF3*M4)/M11)^4)+(((REG!$AF$3*CONFIG!M5)/M12)^4)+(((REG!$AF$3*CONFIG!M6)/M13)^4)+(((REG!$AF$3*CONFIG!M7)/M14)^4)
19	=(((REG!$AC$4*CONFIG!H3)/CONFIG!H10)^4)+(((REG!$AC$4*H4)/H11)^4)+(((REG!$AC$4*CONFIG!H5)/H12)^4)	=(((REG!$AC$4*CONFIG!I3)/CONFIG!I10)^4)+(((REG!$AC$4*I4)/I11)^4)+(((REG!$AC$4*CONFIG!I5)/I12)^4)	=(((REG!$AC$4*CONFIG!J3)/CONFIG!J10)^4)+(((REG!$AC$4*J4)/J11)^4)+(((REG!$AC$4*CONFIG!J5)/J12)^4)	=(((REG!$AC$4*CONFIG!$K$3)/CONFIG!$K$10)^4)+(((REG!$AC$4*$K$4)/$K$11)^4)+(((REG!$AC$4*CONFIG!$K$5)/$K$12)^4)+(((REG!$AC$4*CONFIG!$K$6)/$K$13)^4)+(((REG!$AC$4*CONFIG!$K$7)/$K$14)^4)	=(((REG!$AC$4*CONFIG!$L$3)/CONFIG!$L$10)^4)+(((REG!$AC$4*$L$4)/$L$11)^4)+(((REG!$AC$4*CONFIG!$L$5)/$L$12)^4)+(((REG!$AC$4*CONFIG!$L$6)/$L$13)^4)+(((REG!$AC$4*CONFIG!$L$7)/$L$14)^4)	=(((REG!$AC$4*CONFIG!M3)/CONFIG!$M$10)^4)+(((REG!$AC$4*M4)/$M11)^4)+(((REG!$AC$4*CONFIG!$M$5)/$M$12)^4)+(((REG!$AC$4*CONFIG!$M$6)/$M$13)^4)+(((REG!$AC$4*CONFIG!$M$7)/$M$14)^4)
20	=(((REG!$AC$5*CONFIG!H3)/CONFIG!H10)^4)+(((REG!$AC$5*H4)/H11)^4)+(((REG!$AC$5*CONFIG!H5)/H12)^4)	=(((REG!$AC$5*CONFIG!I3)/CONFIG!I10)^4)+(((REG!$AC$5*I4)/I11)^4)+(((REG!$AC$5*CONFIG!I5)/I12)^4)	=(((REG!$AC$5*CONFIG!J3)/CONFIG!J10)^4)+(((REG!$AC$5*J4)/J11)^4)+(((REG!$AC$5*CONFIG!J5)/J12)^4)	=(((REG!$AC$5*CONFIG!$K$3)/CONFIG!$K$10)^4)+(((REG!$AC$5*$K$4)/$K$11)^4)+(((REG!$AC$5*CONFIG!$K$5)/$K$12)^4)+(((REG!$AC$5*CONFIG!$K$6)/$K$13)^4)+(((REG!$AC$5*CONFIG!$K$7)/$K$14)^4)	=(((REG!$AC$5*CONFIG!$L$3)/CONFIG!$L$10)^4)+(((REG!$AC$5*$L$4)/$L$11)^4)+(((REG!$AC$5*CONFIG!$L$5)/$L$12)^4)+(((REG!$AC$5*CONFIG!$L$6)/$L$13)^4)+(((REG!$AC$5*CONFIG!$L$7)/$L$14)^4)	=(((REG!$AC$5*CONFIG!M3)/CONFIG!$M$10)^4)+(((REG!$AC$5*M4)/$M11)^4)+(((REG!$AC$5*CONFIG!$M$5)/$M$12)^4)+(((REG!$AC$5*CONFIG!$M$6)/$M$13)^4)+(((REG!$AC$5*CONFIG!$M$7)/$M$14)^4)
21	=(((REG!$AC$6*CONFIG!H3)/CONFIG!H10)^4)+(((REG!$AC$6*H4)/H11)^4)+(((REG!$AC$6*CONFIG!H5)/H12)^4)	=(((REG!$AC$6*CONFIG!I3)/CONFIG!I10)^4)+(((REG!$AC$6*I4)/I11)^4)+(((REG!$AC$6*CONFIG!I5)/I12)^4)	=(((REG!$AC$6*CONFIG!J3)/CONFIG!J10)^4)+(((REG!$AC$6*J4)/J11)^4)+(((REG!$AC$6*CONFIG!J5)/J12)^4)	=(((REG!$AC$6*CONFIG!$K$3)/CONFIG!$K$10)^4)+(((REG!$AC$6*$K$4)/$K$11)^4)+(((REG!$AC$6*CONFIG!$K$5)/$K$12)^4)+(((REG!$AC$6*CONFIG!$K$6)/$K$13)^4)+(((REG!$AC$6*CONFIG!$K$7)/$K$14)^4)	=(((REG!$AC$6*CONFIG!$L$3)/CONFIG!$L$10)^4)+(((REG!$AC$6*$L$4)/$L$11)^4)+(((REG!$AC$6*CONFIG!$L$5)/$L$12)^4)+(((REG!$AC$6*CONFIG!$L$6)/$L$13)^4)+(((REG!$AC$6*CONFIG!$L$7)/$L$14)^4)	=(((REG!$AC$6*CONFIG!M3)/CONFIG!$M$10)^4)+(((REG!$AC$6*M4)/$M11)^4)+(((REG!$AC$6*CONFIG!$M$5)/$M$12)^4)+(((REG!$AC$6*CONFIG!$M$6)/$M$13)^4)+(((REG!$AC$6*CONFIG!$M$7)/$M$14)^4)
22	=(((REG!$AC$7*CONFIG!H3)/CONFIG!H10)^4)+(((REG!$AC$7*H4)/H11)^4)+(((REG!$AC$7*CONFIG!H5)/H12)^4)	=(((REG!$AC$7*CONFIG!I3)/CONFIG!I10)^4)+(((REG!$AC$7*I4)/I11)^4)+(((REG!$AC$7*CONFIG!I5)/I12)^4)	=(((REG!$AC$7*CONFIG!J3)/CONFIG!J10)^4)+(((REG!$AC$7*J4)/J11)^4)+(((REG!$AC$7*CONFIG!J5)/J12)^4)	=(((REG!$AC$7*CONFIG!$K$3)/CONFIG!$K$10)^4)+(((REG!$AC$7*$K$4)/$K$11)^4)+(((REG!$AC$7*CONFIG!$K$5)/$K$12)^4)+(((REG!$AC$7*CONFIG!$K$6)/$K$13)^4)+(((REG!$AC$7*CONFIG!$K$7)/$K$14)^4)	=(((REG!$AC$7*CONFIG!$L$3)/CONFIG!$L$10)^4)+(((REG!$AC$7*$L$4)/$L$11)^4)+(((REG!$AC$7*CONFIG!$L$5)/$L$12)^4)+(((REG!$AC$7*CONFIG!$L$6)/$L$13)^4)+(((REG!$AC$7*CONFIG!$L$7)/$L$14)^4)	=(((REG!$AC$7*CONFIG!M3)/CONFIG!$M$10)^4)+(((REG!$AC$7*M4)/$M11)^4)+(((REG!$AC$7*CONFIG!$M$5)/$M$12)^4)+(((REG!$AC$7*CONFIG!$M$6)/$M$13)^4)+(((REG!$AC$7*CONFIG!$M$7)/$M$14)^4)
23	=(((REG!$AC$8*CONFIG!H3)/CONFIG!H10)^4)+(((REG!$AC$8*H4)/H11)^4)+(((REG!$AC$8*CONFIG!H5)/H12)^4)	=(((REG!$AC$8*CONFIG!I3)/CONFIG!I10)^4)+(((REG!$AC$8*I4)/I11)^4)+(((REG!$AC$8*CONFIG!I5)/I12)^4)	=(((REG!$AC$8*CONFIG!J3)/CONFIG!J10)^4)+(((REG!$AC$8*J4)/J11)^4)+(((REG!$AC$8*CONFIG!J5)/J12)^4)	=(((REG!$AC$8*CONFIG!$K$3)/CONFIG!$K$10)^4)+(((REG!$AC$8*$K$4)/$K$11)^4)+(((REG!$AC$8*CONFIG!$K$5)/$K$12)^4)+(((REG!$AC$8*CONFIG!$K$6)/$K$13)^4)+(((REG!$AC$8*CONFIG!$K$7)/$K$14)^4)	=(((REG!$AC$8*CONFIG!$L$3)/CONFIG!$L$10)^4)+(((REG!$AC$8*$L$4)/$L$11)^4)+(((REG!$AC$8*CONFIG!$L$5)/$L$12)^4)+(((REG!$AC$8*CONFIG!$L$6)/$L$13)^4)+(((REG!$AC$8*CONFIG!$L$7)/$L$14)^4)	=(((REG!$AC$8*CONFIG!M3)/CONFIG!$M$10)^4)+(((REG!$AC$8*M4)/$M11)^4)+(((REG!$AC$8*CONFIG!$M$5)/$M$12)^4)+(((REG!$AC$8*CONFIG!$M$6)/$M$13)^4)+(((REG!$AC$8*CONFIG!$M$7)/$M$14)^4)
24	=(((REG!$AC$9*CONFIG!H3)/CONFIG!H10)^4)+(((REG!$AC$9*H4)/H11)^4)+(((REG!$AC$9*CONFIG!H5)/H12)^4)	=(((REG!$AC$9*CONFIG!I3)/CONFIG!I10)^4)+(((REG!$AC$9*I4)/I11)^4)+(((REG!$AC$9*CONFIG!I5)/I12)^4)	=(((REG!$AC$9*CONFIG!J3)/CONFIG!J10)^4)+(((REG!$AC$9*J4)/J11)^4)+(((REG!$AC$9*CONFIG!J5)/J12)^4)	=(((REG!$AC$9*CONFIG!$K$3)/CONFIG!$K$10)^4)+(((REG!$AC$9*$K$4)/$K$11)^4)+(((REG!$AC$9*CONFIG!$K$5)/$K$12)^4)+(((REG!$AC$9*CONFIG!$K$6)/$K$13)^4)+(((REG!$AC$9*CONFIG!$K$7)/$K$14)^4)	=(((REG!$AC$9*CONFIG!$L$3)/CONFIG!$L$10)^4)+(((REG!$AC$9*$L$4)/$L$11)^4)+(((REG!$AC$9*CONFIG!$L$5)/$L$12)^4)+(((REG!$AC$9*CONFIG!$L$6)/$L$13)^4)+(((REG!$AC$9*CONFIG!$L$7)/$L$14)^4)	=(((REG!$AC$9*CONFIG!M3)/CONFIG!$M$10)^4)+(((REG!$AC$9*M4)/$M11)^4)+(((REG!$AC$9*CONFIG!$M$5)/$M$12)^4)+(((REG!$AC$9*CONFIG!$M$6)/$M$13)^4)+(((REG!$AC$9*CONFIG!$M$7)/$M$14)^4)

CONFIG

	H	I	J	K	L	M
25	=(((REG!$AC$10*CONFIG!H3)/CONFIG!H10)^4)+(((REG!$AC$10*H4)/H11)^4)+(((REG!$AC$10*CONFIG!H5)/H12)^4)	=(((REG!$AC$10*CONFIG!I3)/CONFIG!I10)^4)+(((REG!$AC$10*I4)/I11)^4)+(((REG!$AC$10*CONFIG!I5)/I12)^4)	=(((REG!$AC$10*CONFIG!J3)/CONFIG!J10)^4)+(((REG!$AC$10*J4)/J11)^4)+(((REG!$AC$10*CONFIG!J5)/J12)^4)	=(((REG!$AC$10*CONFIG!$K$3)/CONFIG!$K$10)^4)+(((REG!$AC$10*$K$4)/$K$11)^4)+(((REG!$AC$10*CONFIG!$K$5)/$K$12)^4)+(((REG!$AC$10*CONFIG!$K$6)/$K$13)^4)+(((REG!$AC$10*CONFIG!$K$7)/$K$14)^4)	=(((REG!$AC$10*CONFIG!$L$3)/CONFIG!$L$10)^4)+(((REG!$AC$10*$L$4)/$L$11)^4)+(((REG!$AC$10*CONFIG!$L$5)/$L$12)^4)+(((REG!$AC$10*CONFIG!$L$6)/$L$13)^4)+(((REG!$AC$10*CONFIG!$L$7)/$L$14)^4)	=(((REG!$AC$10*CONFIG!$M$3)/CONFIG!$M$10)^4)+(((REG!$AC$10*$M$4)/$M$11)^4)+(((REG!$AC$10*CONFIG!$M$5)/$M$12)^4)+(((REG!$AC$10*CONFIG!$M$6)/$M$13)^4)+(((REG!$AC$10*CONFIG!$M$7)/$M$14)^4)
26	=(((REG!$AC$11*CONFIG!H3)/CONFIG!H10)^4)+(((REG!$AC$11*H4)/H11)^4)+(((REG!$AC$11*CONFIG!H5)/H12)^4)	=(((REG!$AC$11*CONFIG!I3)/CONFIG!I10)^4)+(((REG!$AC$11*I4)/I11)^4)+(((REG!$AC$11*CONFIG!I5)/I12)^4)	=(((REG!$AC$11*CONFIG!J3)/CONFIG!J10)^4)+(((REG!$AC$11*J4)/J11)^4)+(((REG!$AC$11*CONFIG!J5)/J12)^4)	=(((REG!$AC$11*CONFIG!$K$3)/CONFIG!$K$10)^4)+(((REG!$AC$11*$K$4)/$K$11)^4)+(((REG!$AC$11*CONFIG!$K$5)/$K$12)^4)+(((REG!$AC$11*CONFIG!$K$6)/$K$13)^4)+(((REG!$AC$11*CONFIG!$K$7)/$K$14)^4)	=(((REG!$AC$11*CONFIG!$L$3)/CONFIG!$L$10)^4)+(((REG!$AC$11*$L$4)/$L$11)^4)+(((REG!$AC$11*CONFIG!$L$5)/$L$12)^4)+(((REG!$AC$11*CONFIG!$L$6)/$L$13)^4)+(((REG!$AC$11*CONFIG!$L$7)/$L$14)^4)	=(((REG!$AC$11*CONFIG!$M$3)/CONFIG!$M$10)^4)+(((REG!$AC$11*$M$4)/$M$11)^4)+(((REG!$AC$11*CONFIG!$M$5)/$M$12)^4)+(((REG!$AC$11*CONFIG!$M$6)/$M$13)^4)+(((REG!$AC$11*CONFIG!$M$7)/$M$14)^4)
27	=(((REG!$AC$12*CONFIG!H3)/CONFIG!H10)^4)+(((REG!$AC$12*H4)/H11)^4)+(((REG!$AC$12*CONFIG!H5)/H12)^4)	=(((REG!$AC$12*CONFIG!I3)/CONFIG!I10)^4)+(((REG!$AC$12*I4)/I11)^4)+(((REG!$AC$12*CONFIG!I5)/I12)^4)	=(((REG!$AC$12*CONFIG!J3)/CONFIG!J10)^4)+(((REG!$AC$12*J4)/J11)^4)+(((REG!$AC$12*CONFIG!J5)/J12)^4)	=(((REG!$AC$12*CONFIG!$K$3)/CONFIG!$K$10)^4)+(((REG!$AC$12*$K$4)/$K$11)^4)+(((REG!$AC$12*CONFIG!$K$5)/$K$12)^4)+(((REG!$AC$12*CONFIG!$K$6)/$K$13)^4)+(((REG!$AC$12*CONFIG!$K$7)/$K$14)^4)	=(((REG!$AC$12*CONFIG!$L$3)/CONFIG!$L$10)^4)+(((REG!$AC$12*$L$4)/$L$11)^4)+(((REG!$AC$12*CONFIG!$L$5)/$L$12)^4)+(((REG!$AC$12*CONFIG!$L$6)/$L$13)^4)+(((REG!$AC$12*CONFIG!$L$7)/$L$14)^4)	=(((REG!$AC$12*CONFIG!$M$3)/CONFIG!$M$10)^4)+(((REG!$AC$12*$M$4)/$M$11)^4)+(((REG!$AC$12*CONFIG!$M$5)/$M$12)^4)+(((REG!$AC$12*CONFIG!$M$6)/$M$13)^4)+(((REG!$AC$12*CONFIG!$M$7)/$M$14)^4)
28	=(((REG!$AC$13*CONFIG!H3)/CONFIG!H10)^4)+(((REG!$AC$13*H4)/H11)^4)+(((REG!$AC$13*CONFIG!H5)/H12)^4)	=(((REG!$AC$13*CONFIG!I3)/CONFIG!I10)^4)+(((REG!$AC$13*I4)/I11)^4)+(((REG!$AC$13*CONFIG!I5)/I12)^4)	=(((REG!$AC$13*CONFIG!J3)/CONFIG!J10)^4)+(((REG!$AC$13*J4)/J11)^4)+(((REG!$AC$13*CONFIG!J5)/J12)^4)	=(((REG!$AC$13*CONFIG!$K$3)/CONFIG!$K$10)^4)+(((REG!$AC$13*$K$4)/$K$11)^4)+(((REG!$AC$13*CONFIG!$K$5)/$K$12)^4)+(((REG!$AC$13*CONFIG!$K$6)/$K$13)^4)+(((REG!$AC$13*CONFIG!$K$7)/$K$14)^4)	=(((REG!$AC$13*CONFIG!$L$3)/CONFIG!$L$10)^4)+(((REG!$AC$13*$L$4)/$L$11)^4)+(((REG!$AC$13*CONFIG!$L$5)/$L$12)^4)+(((REG!$AC$13*CONFIG!$L$6)/$L$13)^4)+(((REG!$AC$13*CONFIG!$L$7)/$L$14)^4)	=(((REG!$AC$13*CONFIG!$M$3)/CONFIG!$M$10)^4)+(((REG!$AC$13*$M$4)/$M$11)^4)+(((REG!$AC$13*CONFIG!$M$5)/$M$12)^4)+(((REG!$AC$13*CONFIG!$M$6)/$M$13)^4)+(((REG!$AC$13*CONFIG!$M$7)/$M$14)^4)
29	=(((REG!$AC$14*CONFIG!H3)/CONFIG!H10)^4)+(((REG!$AC$14*H4)/H11)^4)+(((REG!$AC$14*CONFIG!H5)/H12)^4)	=(((REG!$AC$14*CONFIG!I3)/CONFIG!I10)^4)+(((REG!$AC$14*I4)/I11)^4)+(((REG!$AC$14*CONFIG!I5)/I12)^4)	=(((REG!$AC$14*CONFIG!J3)/CONFIG!J10)^4)+(((REG!$AC$14*J4)/J11)^4)+(((REG!$AC$14*CONFIG!J5)/J12)^4)	=(((REG!$AC$14*CONFIG!$K$3)/CONFIG!$K$10)^4)+(((REG!$AC$14*$K$4)/$K$11)^4)+(((REG!$AC$14*CONFIG!$K$5)/$K$12)^4)+(((REG!$AC$14*CONFIG!$K$6)/$K$13)^4)+(((REG!$AC$14*CONFIG!$K$7)/$K$14)^4)	=(((REG!$AC$14*CONFIG!$L$3)/CONFIG!$L$10)^4)+(((REG!$AC$14*$L$4)/$L$11)^4)+(((REG!$AC$14*CONFIG!$L$5)/$L$12)^4)+(((REG!$AC$14*CONFIG!$L$6)/$L$13)^4)+(((REG!$AC$14*CONFIG!$L$7)/$L$14)^4)	=(((REG!$AC$14*CONFIG!$M$3)/CONFIG!$M$10)^4)+(((REG!$AC$14*$M$4)/$M$11)^4)+(((REG!$AC$14*CONFIG!$M$5)/$M$12)^4)+(((REG!$AC$14*CONFIG!$M$6)/$M$13)^4)+(((REG!$AC$14*CONFIG!$M$7)/$M$14)^4)
30	=(((REG!$AC$15*CONFIG!H3)/CONFIG!H10)^4)+(((REG!$AC$15*H4)/H11)^4)+(((REG!$AC$15*CONFIG!H5)/H12)^4)	=(((REG!$AC$15*CONFIG!I3)/CONFIG!I10)^4)+(((REG!$AC$15*I4)/I11)^4)+(((REG!$AC$15*CONFIG!I5)/I12)^4)	=(((REG!$AC$15*CONFIG!J3)/CONFIG!J10)^4)+(((REG!$AC$15*J4)/J11)^4)+(((REG!$AC$15*CONFIG!J5)/J12)^4)	=(((REG!$AC$15*CONFIG!$K$3)/CONFIG!$K$10)^4)+(((REG!$AC$15*$K$4)/$K$11)^4)+(((REG!$AC$15*CONFIG!$K$5)/$K$12)^4)+(((REG!$AC$15*CONFIG!$K$6)/$K$13)^4)+(((REG!$AC$15*CONFIG!$K$7)/$K$14)^4)	=(((REG!$AC$15*CONFIG!$L$3)/CONFIG!$L$10)^4)+(((REG!$AC$15*$L$4)/$L$11)^4)+(((REG!$AC$15*CONFIG!$L$5)/$L$12)^4)+(((REG!$AC$15*CONFIG!$L$6)/$L$13)^4)+(((REG!$AC$15*CONFIG!$L$7)/$L$14)^4)	=(((REG!$AC$15*CONFIG!$M$3)/CONFIG!$M$10)^4)+(((REG!$AC$15*$M$4)/$M$11)^4)+(((REG!$AC$15*CONFIG!$M$5)/$M$12)^4)+(((REG!$AC$15*CONFIG!$M$6)/$M$13)^4)+(((REG!$AC$15*CONFIG!$M$7)/$M$14)^4)
31	=(((REG!$AC$16*CONFIG!H3)/CONFIG!H10)^4)+(((REG!$AC$16*H4)/H11)^4)+(((REG!$AC$16*CONFIG!H5)/H12)^4)	=(((REG!$AC$16*CONFIG!I3)/CONFIG!I10)^4)+(((REG!$AC$16*I4)/I11)^4)+(((REG!$AC$16*CONFIG!I5)/I12)^4)	=(((REG!$AC$16*CONFIG!J3)/CONFIG!J10)^4)+(((REG!$AC$16*J4)/J11)^4)+(((REG!$AC$16*CONFIG!J5)/J12)^4)	=(((REG!$AC$16*CONFIG!$K$3)/CONFIG!$K$10)^4)+(((REG!$AC$16*$K$4)/$K$11)^4)+(((REG!$AC$16*CONFIG!$K$5)/$K$12)^4)+(((REG!$AC$16*CONFIG!$K$6)/$K$13)^4)+(((REG!$AC$16*CONFIG!$K$7)/$K$14)^4)	=(((REG!$AC$16*CONFIG!$L$3)/CONFIG!$L$10)^4)+(((REG!$AC$16*$L$4)/$L$11)^4)+(((REG!$AC$16*CONFIG!$L$5)/$L$12)^4)+(((REG!$AC$16*CONFIG!$L$6)/$L$13)^4)+(((REG!$AC$16*CONFIG!$L$7)/$L$14)^4)	=(((REG!$AC$16*CONFIG!$M$3)/CONFIG!$M$10)^4)+(((REG!$AC$16*$M$4)/$M$11)^4)+(((REG!$AC$16*CONFIG!$M$5)/$M$12)^4)+(((REG!$AC$16*CONFIG!$M$6)/$M$13)^4)+(((REG!$AC$16*CONFIG!$M$7)/$M$14)^4)
32	=(((REG!$AC$17*CONFIG!H3)/CONFIG!H10)^4)+(((REG!$AC$17*H4)/H11)^4)+(((REG!$AC$17*CONFIG!H5)/H12)^4)	=(((REG!$AC$17*CONFIG!I3)/CONFIG!I10)^4)+(((REG!$AC$17*I4)/I11)^4)+(((REG!$AC$17*CONFIG!I5)/I12)^4)	=(((REG!$AC$17*CONFIG!J3)/CONFIG!J10)^4)+(((REG!$AC$17*J4)/J11)^4)+(((REG!$AC$17*CONFIG!J5)/J12)^4)	=(((REG!$AC$17*CONFIG!$K$3)/CONFIG!$K$10)^4)+(((REG!$AC$17*$K$4)/$K$11)^4)+(((REG!$AC$17*CONFIG!$K$5)/$K$12)^4)+(((REG!$AC$17*CONFIG!$K$6)/$K$13)^4)+(((REG!$AC$17*CONFIG!$K$7)/$K$14)^4)	=(((REG!$AC$17*CONFIG!$L$3)/CONFIG!$L$10)^4)+(((REG!$AC$17*$L$4)/$L$11)^4)+(((REG!$AC$17*CONFIG!$L$5)/$L$12)^4)+(((REG!$AC$17*CONFIG!$L$6)/$L$13)^4)+(((REG!$AC$17*CONFIG!$L$7)/$L$14)^4)	=(((REG!$AC$17*CONFIG!$M$3)/CONFIG!$M$10)^4)+(((REG!$AC$17*$M$4)/$M$11)^4)+(((REG!$AC$17*CONFIG!$M$5)/$M$12)^4)+(((REG!$AC$17*CONFIG!$M$6)/$M$13)^4)+(((REG!$AC$17*CONFIG!$M$7)/$M$14)^4)
33	=(((REG!$AC$18*CONFIG!H3)/CONFIG!H10)^4)+(((REG!$AC$18*H4)/H11)^4)+(((REG!$AC$18*CONFIG!H5)/H12)^4)	=(((REG!$AC$18*CONFIG!I3)/CONFIG!I10)^4)+(((REG!$AC$18*I4)/I11)^4)+(((REG!$AC$18*CONFIG!I5)/I12)^4)	=(((REG!$AC$18*CONFIG!J3)/CONFIG!J10)^4)+(((REG!$AC$18*J4)/J11)^4)+(((REG!$AC$18*CONFIG!J5)/J12)^4)	=(((REG!$AC$18*CONFIG!$K$3)/CONFIG!$K$10)^4)+(((REG!$AC$18*$K$4)/$K$11)^4)+(((REG!$AC$18*CONFIG!$K$5)/$K$12)^4)+(((REG!$AC$18*CONFIG!$K$6)/$K$13)^4)+(((REG!$AC$18*CONFIG!$K$7)/$K$14)^4)	=(((REG!$AC$18*CONFIG!$L$3)/CONFIG!$L$10)^4)+(((REG!$AC$18*$L$4)/$L$11)^4)+(((REG!$AC$18*CONFIG!$L$5)/$L$12)^4)+(((REG!$AC$18*CONFIG!$L$6)/$L$13)^4)+(((REG!$AC$18*CONFIG!$L$7)/$L$14)^4)	=(((REG!$AC$18*CONFIG!$M$3)/CONFIG!$M$10)^4)+(((REG!$AC$18*$M$4)/$M$11)^4)+(((REG!$AC$18*CONFIG!$M$5)/$M$12)^4)+(((REG!$AC$18*CONFIG!$M$6)/$M$13)^4)+(((REG!$AC$18*CONFIG!$M$7)/$M$14)^4)
34	=(((REG!$AC$19*CONFIG!H3)/CONFIG!H10)^4)+(((REG!$AC$19*H4)/H11)^4)+(((REG!$AC$19*CONFIG!H5)/H12)^4)	=(((REG!$AC$19*CONFIG!I3)/CONFIG!I10)^4)+(((REG!$AC$19*I4)/I11)^4)+(((REG!$AC$19*CONFIG!I5)/I12)^4)	=(((REG!$AC$19*CONFIG!J3)/CONFIG!J10)^4)+(((REG!$AC$19*J4)/J11)^4)+(((REG!$AC$19*CONFIG!J5)/J12)^4)	=(((REG!$AC$19*CONFIG!$K$3)/CONFIG!$K$10)^4)+(((REG!$AC$19*$K$4)/$K$11)^4)+(((REG!$AC$19*CONFIG!$K$5)/$K$12)^4)+(((REG!$AC$19*CONFIG!$K$6)/$K$13)^4)+(((REG!$AC$19*CONFIG!$K$7)/$K$14)^4)	=(((REG!$AC$19*CONFIG!$L$3)/CONFIG!$L$10)^4)+(((REG!$AC$19*$L$4)/$L$11)^4)+(((REG!$AC$19*CONFIG!$L$5)/$L$12)^4)+(((REG!$AC$19*CONFIG!$L$6)/$L$13)^4)+(((REG!$AC$19*CONFIG!$L$7)/$L$14)^4)	=(((REG!$AC$19*CONFIG!$M$3)/CONFIG!$M$10)^4)+(((REG!$AC$19*$M$4)/$M$11)^4)+(((REG!$AC$19*CONFIG!$M$5)/$M$12)^4)+(((REG!$AC$19*CONFIG!$M$6)/$M$13)^4)+(((REG!$AC$19*CONFIG!$M$7)/$M$14)^4)
35	=(((REG!$AC$20*CONFIG!H3)/CONFIG!H10)^4)+(((REG!$AC$20*H4)/H11)^4)+(((REG!$AC$20*CONFIG!H5)/H12)^4)	=(((REG!$AC$20*CONFIG!I3)/CONFIG!I10)^4)+(((REG!$AC$20*I4)/I11)^4)+(((REG!$AC$20*CONFIG!I5)/I12)^4)	=(((REG!$AC$20*CONFIG!J3)/CONFIG!J10)^4)+(((REG!$AC$20*J4)/J11)^4)+(((REG!$AC$20*CONFIG!J5)/J12)^4)	=(((REG!$AC$20*CONFIG!$K$3)/CONFIG!$K$10)^4)+(((REG!$AC$20*$K$4)/$K$11)^4)+(((REG!$AC$20*CONFIG!$K$5)/$K$12)^4)+(((REG!$AC$20*CONFIG!$K$6)/$K$13)^4)+(((REG!$AC$20*CONFIG!$K$7)/$K$14)^4)	=(((REG!$AC$20*CONFIG!$L$3)/CONFIG!$L$10)^4)+(((REG!$AC$20*$L$4)/$L$11)^4)+(((REG!$AC$20*CONFIG!$L$5)/$L$12)^4)+(((REG!$AC$20*CONFIG!$L$6)/$L$13)^4)+(((REG!$AC$20*CONFIG!$L$7)/$L$14)^4)	=(((REG!$AC$20*CONFIG!$M$3)/CONFIG!$M$10)^4)+(((REG!$AC$20*$M$4)/$M$11)^4)+(((REG!$AC$20*CONFIG!$M$5)/$M$12)^4)+(((REG!$AC$20*CONFIG!$M$6)/$M$13)^4)+(((REG!$AC$20*CONFIG!$M$7)/$M$14)^4)
36	=(((REG!$AC$21*CONFIG!H3)/CONFIG!H10)^4)+(((REG!$AC$21*H4)/H11)^4)+(((REG!$AC$21*CONFIG!H5)/H12)^4)	=(((REG!$AC$21*CONFIG!I3)/CONFIG!I10)^4)+(((REG!$AC$21*I4)/I11)^4)+(((REG!$AC$21*CONFIG!I5)/I12)^4)	=(((REG!$AC$21*CONFIG!J3)/CONFIG!J10)^4)+(((REG!$AC$21*J4)/J11)^4)+(((REG!$AC$21*CONFIG!J5)/J12)^4)	=(((REG!$AC$21*CONFIG!$K$3)/CONFIG!$K$10)^4)+(((REG!$AC$21*$K$4)/$K$11)^4)+(((REG!$AC$21*CONFIG!$K$5)/$K$12)^4)+(((REG!$AC$21*CONFIG!$K$6)/$K$13)^4)+(((REG!$AC$21*CONFIG!$K$7)/$K$14)^4)	=(((REG!$AC$21*CONFIG!$L$3)/CONFIG!$L$10)^4)+(((REG!$AC$21*$L$4)/$L$11)^4)+(((REG!$AC$21*CONFIG!$L$5)/$L$12)^4)+(((REG!$AC$21*CONFIG!$L$6)/$L$13)^4)+(((REG!$AC$21*CONFIG!$L$7)/$L$14)^4)	=(((REG!$AC$21*CONFIG!$M$3)/CONFIG!$M$10)^4)+(((REG!$AC$21*$M$4)/$M$11)^4)+(((REG!$AC$21*CONFIG!$M$5)/$M$12)^4)+(((REG!$AC$21*CONFIG!$M$6)/$M$13)^4)+(((REG!$AC$21*CONFIG!$M$7)/$M$14)^4)
37	=(((REG!$AC$22*CONFIG!H3)/CONFIG!H10)^4)+(((REG!$AC$22*H4)/H11)^4)+(((REG!$AC$22*CONFIG!H5)/H12)^4)	=(((REG!$AC$22*CONFIG!I3)/CONFIG!I10)^4)+(((REG!$AC$22*I4)/I11)^4)+(((REG!$AC$22*CONFIG!I5)/I12)^4)	=(((REG!$AC$22*CONFIG!J3)/CONFIG!J10)^4)+(((REG!$AC$22*J4)/J11)^4)+(((REG!$AC$22*CONFIG!J5)/J12)^4)	=(((REG!$AC$22*CONFIG!$K$3)/CONFIG!$K$10)^4)+(((REG!$AC$22*$K$4)/$K$11)^4)+(((REG!$AC$22*CONFIG!$K$5)/$K$12)^4)+(((REG!$AC$22*CONFIG!$K$6)/$K$13)^4)+(((REG!$AC$22*CONFIG!$K$7)/$K$14)^4)	=(((REG!$AC$22*CONFIG!$L$3)/CONFIG!$L$10)^4)+(((REG!$AC$22*$L$4)/$L$11)^4)+(((REG!$AC$22*CONFIG!$L$5)/$L$12)^4)+(((REG!$AC$22*CONFIG!$L$6)/$L$13)^4)+(((REG!$AC$22*CONFIG!$L$7)/$L$14)^4)	=(((REG!$AC$22*CONFIG!$M$3)/CONFIG!$M$10)^4)+(((REG!$AC$22*$M$4)/$M$11)^4)+(((REG!$AC$22*CONFIG!$M$5)/$M$12)^4)+(((REG!$AC$22*CONFIG!$M$6)/$M$13)^4)+(((REG!$AC$22*CONFIG!$M$7)/$M$14)^4)

CONFIG

	H	I	J	K	L	M
38	=(((REG!$AC$23*CONFIG!H3)/CONFIG!H10)^4)+(((REG!$AC$23*H4)/H11)^4)+(((REG!$AC$23*CONFIG!H5)/H12)^4)	=(((REG!$AC$23*CONFIG!I3)/CONFIG!I10)^4)+(((REG!$AC$23*I4)/I11)^4)+(((REG!$AC$23*CONFIG!I5)/I12)^4)	=(((REG!$AC$23*CONFIG!J3)/CONFIG!J10)^4)+(((REG!$AC$23*J4)/J11)^4)+(((REG!$AC$23*CONFIG!J5)/J12)^4)	=(((REG!$AC$23*CONFIG!$K$3)/CONFIG!$K$10)^4)+(((REG!$AC$23*$K$4)/$K$11)^4)+(((REG!$AC$23*CONFIG!$K$5)/$K$12)^4)+(((REG!$AC$23*CONFIG!$K$6)/$K$13)^4)+(((REG!$AC$23*CONFIG!$K$7)/$K$14)^4)	=(((REG!$AC$23*CONFIG!$L$3)/CONFIG!$L$10)^4)+(((REG!$AC$23*$L$4)/$L$11)^4)+(((REG!$AC$23*CONFIG!$L$5)/$L$12)^4)+(((REG!$AC$23*CONFIG!$L$6)/$L$13)^4)+(((REG!$AC$23*CONFIG!$L$7)/$L$14)^4)	=(((REG!$AC$23*CONFIG!$M$3)/CONFIG!$M$10)^4)+(((REG!$AC$23*$M$4)/$M$11)^4)+(((REG!$AC$23*CONFIG!$M$5)/$M$12)^4)+(((REG!$AC$23*CONFIG!$M$6)/$M$13)^4)+(((REG!$AC$23*CONFIG!$M$7)/$M$14)^4)
39	=(((REG!$AC$24*CONFIG!H3)/CONFIG!H10)^4)+(((REG!$AC$24*H4)/H11)^4)+(((REG!$AC$24*CONFIG!H5)/H12)^4)	=(((REG!$AC$24*CONFIG!I3)/CONFIG!I10)^4)+(((REG!$AC$24*I4)/I11)^4)+(((REG!$AC$24*CONFIG!I5)/I12)^4)	=(((REG!$AC$24*CONFIG!J3)/CONFIG!J10)^4)+(((REG!$AC$24*J4)/J11)^4)+(((REG!$AC$24*CONFIG!J5)/J12)^4)	=(((REG!$AC$24*CONFIG!$K$3)/CONFIG!$K$10)^4)+(((REG!$AC$24*$K$4)/$K$11)^4)+(((REG!$AC$24*CONFIG!$K$5)/$K$12)^4)+(((REG!$AC$24*CONFIG!$K$6)/$K$13)^4)+(((REG!$AC$24*CONFIG!$K$7)/$K$14)^4)	=(((REG!$AC$24*CONFIG!$L$3)/CONFIG!$L$10)^4)+(((REG!$AC$24*$L$4)/$L$11)^4)+(((REG!$AC$24*CONFIG!$L$5)/$L$12)^4)+(((REG!$AC$24*CONFIG!$L$6)/$L$13)^4)+(((REG!$AC$24*CONFIG!$L$7)/$L$14)^4)	=(((REG!$AC$24*CONFIG!$M$3)/CONFIG!$M$10)^4)+(((REG!$AC$24*$M$4)/$M$11)^4)+(((REG!$AC$24*CONFIG!$M$5)/$M$12)^4)+(((REG!$AC$24*CONFIG!$M$6)/$M$13)^4)+(((REG!$AC$24*CONFIG!$M$7)/$M$14)^4)
40	=(((REG!$AC$25*CONFIG!H3)/CONFIG!H10)^4)+(((REG!$AC$25*H4)/H11)^4)+(((REG!$AC$25*CONFIG!H5)/H12)^4)	=(((REG!$AC$25*CONFIG!I3)/CONFIG!I10)^4)+(((REG!$AC$25*I4)/I11)^4)+(((REG!$AC$25*CONFIG!I5)/I12)^4)	=(((REG!$AC$25*CONFIG!J3)/CONFIG!J10)^4)+(((REG!$AC$25*J4)/J11)^4)+(((REG!$AC$25*CONFIG!J5)/J12)^4)	=(((REG!$AC$25*CONFIG!$K$3)/CONFIG!$K$10)^4)+(((REG!$AC$25*$K$4)/$K$11)^4)+(((REG!$AC$25*CONFIG!$K$5)/$K$12)^4)+(((REG!$AC$25*CONFIG!$K$6)/$K$13)^4)+(((REG!$AC$25*CONFIG!$K$7)/$K$14)^4)	=(((REG!$AC$25*CONFIG!$L$3)/CONFIG!$L$10)^4)+(((REG!$AC$25*$L$4)/$L$11)^4)+(((REG!$AC$25*CONFIG!$L$5)/$L$12)^4)+(((REG!$AC$25*CONFIG!$L$6)/$L$13)^4)+(((REG!$AC$25*CONFIG!$L$7)/$L$14)^4)	=(((REG!$AC$25*CONFIG!$M$3)/CONFIG!$M$10)^4)+(((REG!$AC$25*$M$4)/$M$11)^4)+(((REG!$AC$25*CONFIG!$M$5)/$M$12)^4)+(((REG!$AC$25*CONFIG!$M$6)/$M$13)^4)+(((REG!$AC$25*CONFIG!$M$7)/$M$14)^4)

	O	P	Q	R	S	T	U
1	**Tire Configuration Estimates and Allocation Factors**						
2	**Truck Type**	**Config.**	**Tire Estimate**	**% of Reg**	**Tire Factor**	**Adj**	**Alloc**
3	SU	2A6T	6	=COMWGT!B$29/SUM(COMWGT!$B$29:$L$29)	=Q3/SUM($Q$3:$Q$13)	=R3*S3	=T3/SUM($T$3:$T$13)
4		3A	10	=COMWGT!C$29/SUM(COMWGT!$B$29:$L$29)	=Q4/SUM($Q$3:$Q$13)	=R4*S4	=T4/SUM($T$3:$T$13)
5		4A	14	=COMWGT!D$29/SUM(COMWGT!$B$29:$L$29)	=Q5/SUM($Q$3:$Q$13)	=R5*S5	=T5/SUM($T$3:$T$13)
6							
7	CMB S	CS 4A	14	=COMWGT!F$29/SUM(COMWGT!$B$29:$L$29)	=Q7/SUM($Q$3:$Q$13)	=R7*S7	=T7/SUM($T$3:$T$13)
8		CS 5A	18	=COMWGT!G$29/SUM(COMWGT!$B$29:$L$29)	=Q8/SUM($Q$3:$Q$13)	=R8*S8	=T8/SUM($T$3:$T$13)
9		CS 6+A	22	=COMWGT!H$29/SUM(COMWGT!$B$29:$L$29)	=Q9/SUM($Q$3:$Q$13)	=R9*S9	=T9/SUM($T$3:$T$13)
10							
11	CMB M	CM 5A	18	=COMWGT!J$29/SUM(COMWGT!$B$29:$L$29)	=Q11/SUM($Q$3:$Q$13)	=R11*S11	=T11/SUM($T$3:$T$13)
12		CM 6A	22	=COMWGT!K$29/SUM(COMWGT!$B$29:$L$29)	=Q12/SUM($Q$3:$Q$13)	=R12*S12	=T12/SUM($T$3:$T$13)
13		CM 7+A	26	=COMWGT!L$29/SUM(COMWGT!$B$29:$L$29)	=Q13/SUM($Q$3:$Q$13)	=R13*S13	=T13/SUM($T$3:$T$13)

MAB DERIV

	A	B	C	D	E	F	G	H	I	J
1	**Tandem Axle ESAL Derivations**									
2		**Tand Axle Wgt**	**ESAL**	**ESAL^(1/4)**	**Stand Weight**		**ESAL Check**		**Base ESAL Weights**	
3		34	1.09	=C3^(1/4)	=B3/D3		=(B3/$E$9)^4		**Tandem**	=E9
4		33	0.97	=C4^(1/4)	=B4/D4		=(B4/$E$9)^4		**Triple**	=E15
5		31	0.75	=C5^(1/4)	=B5/D5		=(B5/$E$9)^4			
6		30	0.66	=C6^(1/4)	=B6/D6		=(B6/$E$9)^4			
7		28	0.5	=C7^(1/4)	=B7/D7		=(B7/$E$9)^4			
8		32	0.86	=C8^(1/4)	=B8/D8		=(B8/$E$9)^4			
9	**Standardized Base Tandem Axle Weight:**						=AVERAGE(E3:E8)		=(E9/$E$9)^4	
10										
11	**Triple Axle ESAL Derivations**									
12		**Triple Axle Weight**	**ESAL**	**ESAL^(1/4)**	**Standard Weight**		**ESAL Check**			
13		40	0.49	=C13^(1/4)	=B13/D13		=(B13/$E$15)^4			
14		42	0.6	=C14^(1/4)	=B14/D14		=(B14/$E$15)^4			
15	**Standardized Base Triple Axle Weight:**					=AVERAGE(E13:E14)		=(E15/$E$15)^4		

COMWGT

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Weight Counts and Ratios, 1980-86**													
2														
3	**WGT**	**SU**				**CB 1T**				**CB 2+T**				**BUSES**
4		**2A6T**	**3A**	**4A**		**4A**	**5A**	**6+A**		**5A**	**6A**	**7+A**		
5	0-8	84	0	0		0.1	0	0		0	0	0		17
6	8-10	146	0.1	0.1		0.2	0.1	0.1		0.1	0.1	0.1		46.1
7	10-12	59	0.1	0.1		0.2	0.1	0.1		0.1	0.1	0.1		92.1
8	12-14	26	0.1	0.1		0.2	0.1	0.1		0.1	0.1	0.1		45.1
9	14-16	43	0.1	0.1		0.2	0.1	0.1		0.1	0.1	0.1		73.1
10	16-18	58	2	2		0.2	0.1	0.1		0.1	0.1	0.1		37.1
11	18-20	59	1	1		0.2	0.1	0.1		0.1	0.1	0.1		43
12	20-22	27	0.1	0.1		0.2	0.1	0.1		0.1	0.1	0.1		19
13	22-24	60	3	3		3.2	0.1	0.1		0.1	0.1	0.1		46
14	24-26	81	2	2		3	0.1	2		0.1	0.1	0.1		113
15	26-28	53	2	2		2.3	0.1	0.1		0.2	0.2	0.2		112.2
16	28-30	32	3	3		5	0.1	0.2		0.1	0.1	0.1		134
17	30-32	13	1	1		2.1	0.1	0.1		0.2	0.2	0.2		101
18	32-36	16	5	5		4	1	0.3		0.1	0.1	0.1		47
19	36-40	12	7	7		6	0.3	0.1		0.2	0.2	0.2		15.1
20	40-45	0.3	15	15		9	4	1		0.1	0.1	0.1		184.4
21	45-50	17	42	42		28	5	2		0.2	0.2	0.2		258.3
22	50-55	3	36	36		20	2	0.1		1	1	1		47.3
23	55-60	6	17	17		38	9	1		3	3	3		2.7
24	60-65	0.3	18	18		22	8	1		0.3	0.2	0.2		0.8

COMWGT

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
25	65-70	2.2	1	1		6	6	3		3	3	3		0.8
26	70-75	0.3	2	2		7	107	2		8	11	11		0.8
27	75-80	4	39	39		90	2020	177		316	342	345		0.8
28	>80	3	0.2	0.2		2.1	5	0		0	1	1		0
29	TOTAL	=SUM(B5:B28)	=SUM(C5:C28)	=SUM(D5:D28)		=SUM(F5:F28)	=SUM(G5:G28)	=SUM(H5:H28)		=SUM(J5:J28)	=SUM(K5:K28)	=SUM(L5:L28)		=SUM(N5:N28)
30														
31	**Ratios of RGW by Vehicle Type**													
32	**WGT**	**SU**				**CB 1T**				**CB 2+T**				**BUSES**
33		**2A6T**	**3A**	**4A**		**4A**	**5A**	**6+A**		**5A**	**6A**	**7+A**		
34	0-8	=B5/$B$29	=C5/$C$29	=D5/$D$29		=F5/$F$29	=G5/$G$29	=H5/$H$29		=J5/$J$29	=K5/$K$29	=L5/$L$29		=N5/$N$29
35	8-10	=B6/$B$29	=C6/$C$29	=D6/$D$29		=F6/$F$29	=G6/$G$29	=H6/$H$29		=J6/$J$29	=K6/$K$29	=L6/$L$29		=N6/$N$29
36	10-12	=B7/$B$29	=C7/$C$29	=D7/$D$29		=F7/$F$29	=G7/$G$29	=H7/$H$29		=J7/$J$29	=K7/$K$29	=L7/$L$29		=N7/$N$29
37	12-14	=B8/$B$29	=C8/$C$29	=D8/$D$29		=F8/$F$29	=G8/$G$29	=H8/$H$29		=J8/$J$29	=K8/$K$29	=L8/$L$29		=N8/$N$29
38	14-16	=B9/$B$29	=C9/$C$29	=D9/$D$29		=F9/$F$29	=G9/$G$29	=H9/$H$29		=J9/$J$29	=K9/$K$29	=L9/$L$29		=N9/$N$29
39	16-18	=B10/$B$29	=C10/$C$29	=D10/$D$29		=F10/$F$29	=G10/$G$29	=H10/$H$29		=J10/$J$29	=K10/$K$29	=L10/$L$29		=N10/$N$29
40	18-20	=B11/$B$29	=C11/$C$29	=D11/$D$29		=F11/$F$29	=G11/$G$29	=H11/$H$29		=J11/$J$29	=K11/$K$29	=L11/$L$29		=N11/$N$29
41	20-22	=B12/$B$29	=C12/$C$29	=D12/$D$29		=F12/$F$29	=G12/$G$29	=H12/$H$29		=J12/$J$29	=K12/$K$29	=L12/$L$29		=N12/$N$29
42	22-24	=B13/$B$29	=C13/$C$29	=D13/$D$29		=F13/$F$29	=G13/$G$29	=H13/$H$29		=J13/$J$29	=K13/$K$29	=L13/$L$29		=N13/$N$29
43	24-26	=B14/$B$29	=C14/$C$29	=D14/$D$29		=F14/$F$29	=G14/$G$29	=H14/$H$29		=J14/$J$29	=K14/$K$29	=L14/$L$29		=N14/$N$29
44	26-28	=B15/$B$29	=C15/$C$29	=D15/$D$29		=F15/$F$29	=G15/$G$29	=H15/$H$29		=J15/$J$29	=K15/$K$29	=L15/$L$29		=N15/$N$29
45	28-30	=B16/$B$29	=C16/$C$29	=D16/$D$29		=F16/$F$29	=G16/$G$29	=H16/$H$29		=J16/$J$29	=K16/$K$29	=L16/$L$29		=N16/$N$29
46	30-32	=B17/$B$29	=C17/$C$29	=D17/$D$29		=F17/$F$29	=G17/$G$29	=H17/$H$29		=J17/$J$29	=K17/$K$29	=L17/$L$29		=N17/$N$29
47	32-36	=B18/$B$29	=C18/$C$29	=D18/$D$29		=F18/$F$29	=G18/$G$29	=H18/$H$29		=J18/$J$29	=K18/$K$29	=L18/$L$29		=N18/$N$29
48	36-40	=B19/$B$29	=C19/$C$29	=D19/$D$29		=F19/$F$29	=G19/$G$29	=H19/$H$29		=J19/$J$29	=K19/$K$29	=L19/$L$29		=N19/$N$29
49	40-45	=B20/$B$29	=C20/$C$29	=D20/$D$29		=F20/$F$29	=G20/$G$29	=H20/$H$29		=J20/$J$29	=K20/$K$29	=L20/$L$29		=N20/$N$29
50	45-50	=B21/$B$29	=C21/$C$29	=D21/$D$29		=F21/$F$29	=G21/$G$29	=H21/$H$29		=J21/$J$29	=K21/$K$29	=L21/$L$29		=N21/$N$29
51	50-55	=B22/$B$29	=C22/$C$29	=D22/$D$29		=F22/$F$29	=G22/$G$29	=H22/$H$29		=J22/$J$29	=K22/$K$29	=L22/$L$29		=N22/$N$29
52	55-60	=B23/$B$29	=C23/$C$29	=D23/$D$29		=F23/$F$29	=G23/$G$29	=H23/$H$29		=J23/$J$29	=K23/$K$29	=L23/$L$29		=N23/$N$29
53	60-65	=B24/$B$29	=C24/$C$29	=D24/$D$29		=F24/$F$29	=G24/$G$29	=H24/$H$29		=J24/$J$29	=K24/$K$29	=L24/$L$29		=N24/$N$29
54	65-70	=B25/$B$29	=C25/$C$29	=D25/$D$29		=F25/$F$29	=G25/$G$29	=H25/$H$29		=J25/$J$29	=K25/$K$29	=L25/$L$29		=N25/$N$29
55	70-75	=B26/$B$29	=C26/$C$29	=D26/$D$29		=F26/$F$29	=G26/$G$29	=H26/$H$29		=J26/$J$29	=K26/$K$29	=L26/$L$29		=N26/$N$29
56	75-80	=B27/$B$29	=C27/$C$29	=D27/$D$29		=F27/$F$29	=G27/$G$29	=H27/$H$29		=J27/$J$29	=K27/$K$29	=L27/$L$29		=N27/$N$29
57	>80	=B28/$B$29	=C28/$C$29	=D28/$D$29		=F28/$F$29	=G28/$G$29	=H28/$H$29		=J28/$J$29	=K28/$K$29	=L28/$L$29		=N28/$N$29
58	TOTAL	=B29/$B$29	=C29/$C$29	=D29/$D$29		=F29/$F$29	=G29/$G$29	=H29/$H$29		=J29/$J$29	=K29/$K$29	=L29/$L$29		=N29/$N$29
59														
60														
61	Ratios of Vehicle Configuration by Vehicle Class													
62	WGT	SU				CMB 1T				CMB 2+T				BUSES
63		**2A6T**	**3A**	**4A**		**4A**	**5A**	**6+A**		**5A**	**6A**	**7+A**		
64	0-8	=B5/SUM($B$29:$D$29)	=C5/SUM($B$29:$D$29)	=D5/SUM($B$29:$D$29)		=F5/SUM($F$29:$H$29)	=G5/SUM($F$29:$H$29)	=H5/SUM($F$29:$H$29)		=J5/SUM($J$29:$L$29)	=K5/SUM($J$29:$L$29)	=L5/SUM($J$29:$L$29)		=N5/$N$29
65	8-10	=B6/SUM($B$29:$D$29)	=C6/SUM($B$29:$D$29)	=D6/SUM($B$29:$D$29)		=F6/SUM($F$29:$H$29)	=G6/SUM($F$29:$H$29)	=H6/SUM($F$29:$H$29)		=J6/SUM($J$29:$L$29)	=K6/SUM($J$29:$L$29)	=L6/SUM($J$29:$L$29)		=N6/$N$29
66	10-12	=B7/SUM($B$29:$D$29)	=C7/SUM($B$29:$D$29)	=D7/SUM($B$29:$D$29)		=F7/SUM($F$29:$H$29)	=G7/SUM($F$29:$H$29)	=H7/SUM($F$29:$H$29)		=J7/SUM($J$29:$L$29)	=K7/SUM($J$29:$L$29)	=L7/SUM($J$29:$L$29)		=N7/$N$29
67	12-14	=B8/SUM($B$29:$D$29)	=C8/SUM($B$29:$D$29)	=D8/SUM($B$29:$D$29)		=F8/SUM($F$29:$H$29)	=G8/SUM($F$29:$H$29)	=H8/SUM($F$29:$H$29)		=J8/SUM($J$29:$L$29)	=K8/SUM($J$29:$L$29)	=L8/SUM($J$29:$L$29)		=N8/$N$29

CONFIG

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
68	14-16	=B9/SUM($B$29:$D$29)	=C9/SUM($B$29:$D$29)	=D9/SUM($B$29:$D$29)		=F9/SUM($F$29:$H$29)	=G9/SUM($F$29:$H$29)	=H9/SUM($F$29:$H$29)		=J9/SUM($J$29:$L$29)	=K9/SUM($J$29:$L$29)	=L9/SUM($J$29:$L$29)		=N9/$N$29
69	16-18	=B10/SUM($B$29:$D$29)	=C10/SUM($B$29:$D$29)	=D10/SUM($B$29:$D$29)		=F10/SUM($F$29:$H$29)	=G10/SUM($F$29:$H$29)	=H10/SUM($F$29:$H$29)		=J10/SUM($J$29:$L$29)	=K10/SUM($J$29:$L$29)	=L10/SUM($J$29:$L$29)		=N10/$N$29
70	18-20	=B11/SUM($B$29:$D$29)	=C11/SUM($B$29:$D$29)	=D11/SUM($B$29:$D$29)		=F11/SUM($F$29:$H$29)	=G11/SUM($F$29:$H$29)	=H11/SUM($F$29:$H$29)		=J11/SUM($J$29:$L$29)	=K11/SUM($J$29:$L$29)	=L11/SUM($J$29:$L$29)		=N11/$N$29
71	20-22	=B12/SUM($B$29:$D$29)	=C12/SUM($B$29:$D$29)	=D12/SUM($B$29:$D$29)		=F12/SUM($F$29:$H$29)	=G12/SUM($F$29:$H$29)	=H12/SUM($F$29:$H$29)		=J12/SUM($J$29:$L$29)	=K12/SUM($J$29:$L$29)	=L12/SUM($J$29:$L$29)		=N12/$N$29
72	22-24	=B13/SUM($B$29:$D$29)	=C13/SUM($B$29:$D$29)	=D13/SUM($B$29:$D$29)		=F13/SUM($F$29:$H$29)	=G13/SUM($F$29:$H$29)	=H13/SUM($F$29:$H$29)		=J13/SUM($J$29:$L$29)	=K13/SUM($J$29:$L$29)	=L13/SUM($J$29:$L$29)		=N13/$N$29
73	24-26	=B14/SUM($B$29:$D$29)	=C14/SUM($B$29:$D$29)	=D14/SUM($B$29:$D$29)		=F14/SUM($F$29:$H$29)	=G14/SUM($F$29:$H$29)	=H14/SUM($F$29:$H$29)		=J14/SUM($J$29:$L$29)	=K14/SUM($J$29:$L$29)	=L14/SUM($J$29:$L$29)		=N14/$N$29
74	26-28	=B15/SUM($B$29:$D$29)	=C15/SUM($B$29:$D$29)	=D15/SUM($B$29:$D$29)		=F15/SUM($F$29:$H$29)	=G15/SUM($F$29:$H$29)	=H15/SUM($F$29:$H$29)		=J15/SUM($J$29:$L$29)	=K15/SUM($J$29:$L$29)	=L15/SUM($J$29:$L$29)		=N15/$N$29
75	28-30	=B16/SUM($B$29:$D$29)	=C16/SUM($B$29:$D$29)	=D16/SUM($B$29:$D$29)		=F16/SUM($F$29:$H$29)	=G16/SUM($F$29:$H$29)	=H16/SUM($F$29:$H$29)		=J16/SUM($J$29:$L$29)	=K16/SUM($J$29:$L$29)	=L16/SUM($J$29:$L$29)		=N16/$N$29
76	30-32	=B17/SUM($B$29:$D$29)	=C17/SUM($B$29:$D$29)	=D17/SUM($B$29:$D$29)		=F17/SUM($F$29:$H$29)	=G17/SUM($F$29:$H$29)	=H17/SUM($F$29:$H$29)		=J17/SUM($J$29:$L$29)	=K17/SUM($J$29:$L$29)	=L17/SUM($J$29:$L$29)		=N17/$N$29
77	32-36	=B18/SUM($B$29:$D$29)	=C18/SUM($B$29:$D$29)	=D18/SUM($B$29:$D$29)		=F18/SUM($F$29:$H$29)	=G18/SUM($F$29:$H$29)	=H18/SUM($F$29:$H$29)		=J18/SUM($J$29:$L$29)	=K18/SUM($J$29:$L$29)	=L18/SUM($J$29:$L$29)		=N18/$N$29
78	36-40	=B19/SUM($B$29:$D$29)	=C19/SUM($B$29:$D$29)	=D19/SUM($B$29:$D$29)		=F19/SUM($F$29:$H$29)	=G19/SUM($F$29:$H$29)	=H19/SUM($F$29:$H$29)		=J19/SUM($J$29:$L$29)	=K19/SUM($J$29:$L$29)	=L19/SUM($J$29:$L$29)		=N19/$N$29
79	40-45	=B20/SUM($B$29:$D$29)	=C20/SUM($B$29:$D$29)	=D20/SUM($B$29:$D$29)		=F20/SUM($F$29:$H$29)	=G20/SUM($F$29:$H$29)	=H20/SUM($F$29:$H$29)		=J20/SUM($J$29:$L$29)	=K20/SUM($J$29:$L$29)	=L20/SUM($J$29:$L$29)		=N20/$N$29
80	45-50	=B21/SUM($B$29:$D$29)	=C21/SUM($B$29:$D$29)	=D21/SUM($B$29:$D$29)		=F21/SUM($F$29:$H$29)	=G21/SUM($F$29:$H$29)	=H21/SUM($F$29:$H$29)		=J21/SUM($J$29:$L$29)	=K21/SUM($J$29:$L$29)	=L21/SUM($J$29:$L$29)		=N21/$N$29
81	50-55	=B22/SUM($B$29:$D$29)	=C22/SUM($B$29:$D$29)	=D22/SUM($B$29:$D$29)		=F22/SUM($F$29:$H$29)	=G22/SUM($F$29:$H$29)	=H22/SUM($F$29:$H$29)		=J22/SUM($J$29:$L$29)	=K22/SUM($J$29:$L$29)	=L22/SUM($J$29:$L$29)		=N22/$N$29
82	55-60	=B23/SUM($B$29:$D$29)	=C23/SUM($B$29:$D$29)	=D23/SUM($B$29:$D$29)		=F23/SUM($F$29:$H$29)	=G23/SUM($F$29:$H$29)	=H23/SUM($F$29:$H$29)		=J23/SUM($J$29:$L$29)	=K23/SUM($J$29:$L$29)	=L23/SUM($J$29:$L$29)		=N23/$N$29
83	60-65	=B24/SUM($B$29:$D$29)	=C24/SUM($B$29:$D$29)	=D24/SUM($B$29:$D$29)		=F24/SUM($F$29:$H$29)	=G24/SUM($F$29:$H$29)	=H24/SUM($F$29:$H$29)		=J24/SUM($J$29:$L$29)	=K24/SUM($J$29:$L$29)	=L24/SUM($J$29:$L$29)		=N24/$N$29
84	65-70	=B25/SUM($B$29:$D$29)	=C25/SUM($B$29:$D$29)	=D25/SUM($B$29:$D$29)		=F25/SUM($F$29:$H$29)	=G25/SUM($F$29:$H$29)	=H25/SUM($F$29:$H$29)		=J25/SUM($J$29:$L$29)	=K25/SUM($J$29:$L$29)	=L25/SUM($J$29:$L$29)		=N25/$N$29
85	70-75	=B26/SUM($B$29:$D$29)	=C26/SUM($B$29:$D$29)	=D26/SUM($B$29:$D$29)		=F26/SUM($F$29:$H$29)	=G26/SUM($F$29:$H$29)	=H26/SUM($F$29:$H$29)		=J26/SUM($J$29:$L$29)	=K26/SUM($J$29:$L$29)	=L26/SUM($J$29:$L$29)		=N26/$N$29
86	75-80	=B27/SUM($B$29:$D$29)	=C27/SUM($B$29:$D$29)	=D27/SUM($B$29:$D$29)		=F27/SUM($F$29:$H$29)	=G27/SUM($F$29:$H$29)	=H27/SUM($F$29:$H$29)		=J27/SUM($J$29:$L$29)	=K27/SUM($J$29:$L$29)	=L27/SUM($J$29:$L$29)		=N27/$N$29
87	>80	=B28/SUM($B$29:$D$29)	=C28/SUM($B$29:$D$29)	=D28/SUM($B$29:$D$29)		=F28/SUM($F$29:$H$29)	=G28/SUM($F$29:$H$29)	=H28/SUM($F$29:$H$29)		=J28/SUM($J$29:$L$29)	=K28/SUM($J$29:$L$29)	=L28/SUM($J$29:$L$29)		=N28/$N$29
88	TOTAL	=B29/SUM($B$29:$D$29)	=C29/SUM($B$29:$D$29)	=D29/SUM($B$29:$D$29)		=F29/SUM($F$29:$H$29)	=G29/SUM($F$29:$H$29)	=H29/SUM($F$29:$H$29)		=J29/SUM($J$29:$L$29)	=K29/SUM($J$29:$L$29)	=L29/SUM($J$29:$L$29)		=N29/$N$29

RTRAF WGT

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	**Proportion of Rural Traffic by Vehicle Class**												
2	**WGT**	**Autos**	**Pick-ups**	**Buses**	**SU**			**CMB Single Trailer**			**CMB Multi-trailer**		
3					**2A 6T**	**3A**	**4A**	**CS 4A**	**CS 5A**	**CS 6A**	**CM 5A**	**CM 6A**	**CM 7A**
4	0-8	=REG!I3*RVMT!$R$5	=REG!J3*RVMT!$R$6	=REG!K3*RVMT!$R$7	=COMWGT!B34*RVMT!F$22	=COMWGT!C34*RVMT!G$22	=COMWGT!D34*RVMT!H$22	=COMWGT!F34*RVMT!I$22	=COMWGT!G34*RVMT!J$22	=COMWGT!H34*RVMT!K$22	=COMWGT!J34*RVMT!L$22	=COMWGT!K34*RVMT!M$22	=COMWGT!L34*RVMT!N$22
5	8-10	=REG!I4*RVMT!$R$5	=REG!J4*RVMT!$R$6	=REG!K4*RVMT!$R$7	=COMWGT!B35*RVMT!F$22	=COMWGT!C35*RVMT!G$22	=COMWGT!D35*RVMT!H$22	=COMWGT!F35*RVMT!I$22	=COMWGT!G35*RVMT!J$22	=COMWGT!H35*RVMT!K$22	=COMWGT!J35*RVMT!L$22	=COMWGT!K35*RVMT!M$22	=COMWGT!L35*RVMT!N$22
6	10-12	=REG!I5*RVMT!$R$5	=REG!J5*RVMT!$R$6	=REG!K5*RVMT!$R$7	=COMWGT!B36*RVMT!F$22	=COMWGT!C36*RVMT!G$22	=COMWGT!D36*RVMT!H$22	=COMWGT!F36*RVMT!I$22	=COMWGT!G36*RVMT!J$22	=COMWGT!H36*RVMT!K$22	=COMWGT!J36*RVMT!L$22	=COMWGT!K36*RVMT!M$22	=COMWGT!L36*RVMT!N$22
7	12-14	=REG!I6*RVMT!$R$5	=REG!J6*RVMT!$R$6	=REG!K6*RVMT!$R$7	=COMWGT!B37*RVMT!F$22	=COMWGT!C37*RVMT!G$22	=COMWGT!D37*RVMT!H$22	=COMWGT!F37*RVMT!I$22	=COMWGT!G37*RVMT!J$22	=COMWGT!H37*RVMT!K$22	=COMWGT!J37*RVMT!L$22	=COMWGT!K37*RVMT!M$22	=COMWGT!L37*RVMT!N$22
8	14-16	=REG!I7*RVMT!$R$5	=REG!J7*RVMT!$R$6	=REG!K7*RVMT!$R$7	=COMWGT!B38*RVMT!F$22	=COMWGT!C38*RVMT!G$22	=COMWGT!D38*RVMT!H$22	=COMWGT!F38*RVMT!I$22	=COMWGT!G38*RVMT!J$22	=COMWGT!H38*RVMT!K$22	=COMWGT!J38*RVMT!L$22	=COMWGT!K38*RVMT!M$22	=COMWGT!L38*RVMT!N$22
9	16-18	=REG!I8*RVMT!$R$5	=REG!J8*RVMT!$R$6	=REG!K8*RVMT!$R$7	=COMWGT!B39*RVMT!F$22	=COMWGT!C39*RVMT!G$22	=COMWGT!D39*RVMT!H$22	=COMWGT!F39*RVMT!I$22	=COMWGT!G39*RVMT!J$22	=COMWGT!H39*RVMT!K$22	=COMWGT!J39*RVMT!L$22	=COMWGT!K39*RVMT!M$22	=COMWGT!L39*RVMT!N$22
10	18-20	=REG!I9*RVMT!$R$5	=REG!J9*RVMT!$R$6	=REG!K9*RVMT!$R$7	=COMWGT!B40*RVMT!F$22	=COMWGT!C40*RVMT!G$22	=COMWGT!D40*RVMT!H$22	=COMWGT!F40*RVMT!I$22	=COMWGT!G40*RVMT!J$22	=COMWGT!H40*RVMT!K$22	=COMWGT!J40*RVMT!L$22	=COMWGT!K40*RVMT!M$22	=COMWGT!L40*RVMT!N$22
11	20-22	=REG!I10*RVMT!$R$5	=REG!J10*RVMT!$R$6	=REG!K10*RVMT!$R$7	=COMWGT!B41*RVMT!F$22	=COMWGT!C41*RVMT!G$22	=COMWGT!D41*RVMT!H$22	=COMWGT!F41*RVMT!I$22	=COMWGT!G41*RVMT!J$22	=COMWGT!H41*RVMT!K$22	=COMWGT!J41*RVMT!L$22	=COMWGT!K41*RVMT!M$22	=COMWGT!L41*RVMT!N$22
12	22-24	=REG!I11*RVMT!$R$5	=REG!J11*RVMT!$R$6	=REG!K11*RVMT!$R$7	=COMWGT!B42*RVMT!F$22	=COMWGT!C42*RVMT!G$22	=COMWGT!D42*RVMT!H$22	=COMWGT!F42*RVMT!I$22	=COMWGT!G42*RVMT!J$22	=COMWGT!H42*RVMT!K$22	=COMWGT!J42*RVMT!L$22	=COMWGT!K42*RVMT!M$22	=COMWGT!L42*RVMT!N$22
13	24-26	=REG!I12*RVMT!$R$5	=REG!J12*RVMT!$R$6	=REG!K12*RVMT!$R$7	=COMWGT!B43*RVMT!F$22	=COMWGT!C43*RVMT!G$22	=COMWGT!D43*RVMT!H$22	=COMWGT!F43*RVMT!I$22	=COMWGT!G43*RVMT!J$22	=COMWGT!H43*RVMT!K$22	=COMWGT!J43*RVMT!L$22	=COMWGT!K43*RVMT!M$22	=COMWGT!L43*RVMT!N$22
14	26-28	=REG!I13*RVMT!$R$5	=REG!J13*RVMT!$R$6	=REG!K13*RVMT!$R$7	=COMWGT!B44*RVMT!F$22	=COMWGT!C44*RVMT!G$22	=COMWGT!D44*RVMT!H$22	=COMWGT!F44*RVMT!I$22	=COMWGT!G44*RVMT!J$22	=COMWGT!H44*RVMT!K$22	=COMWGT!J44*RVMT!L$22	=COMWGT!K44*RVMT!M$22	=COMWGT!L44*RVMT!N$22
15	28-30	=REG!I14*RVMT!$R$5	=REG!J14*RVMT!$R$6	=REG!K14*RVMT!$R$7	=COMWGT!B45*RVMT!F$22	=COMWGT!C45*RVMT!G$22	=COMWGT!D45*RVMT!H$22	=COMWGT!F45*RVMT!I$22	=COMWGT!G45*RVMT!J$22	=COMWGT!H45*RVMT!K$22	=COMWGT!J45*RVMT!L$22	=COMWGT!K45*RVMT!M$22	=COMWGT!L45*RVMT!N$22
16	30-32	=REG!I15*RVMT!$R$5	=REG!J15*RVMT!$R$6	=REG!K15*RVMT!$R$7	=COMWGT!B46*RVMT!F$22	=COMWGT!C46*RVMT!G$22	=COMWGT!D46*RVMT!H$22	=COMWGT!F46*RVMT!I$22	=COMWGT!G46*RVMT!J$22	=COMWGT!H46*RVMT!K$22	=COMWGT!J46*RVMT!L$22	=COMWGT!K46*RVMT!M$22	=COMWGT!L46*RVMT!N$22
17	32-36	=REG!I16*RVMT!$R$5	=REG!J16*RVMT!$R$6	=REG!K16*RVMT!$R$7	=COMWGT!B47*RVMT!F$22	=COMWGT!C47*RVMT!G$22	=COMWGT!D47*RVMT!H$22	=COMWGT!F47*RVMT!I$22	=COMWGT!G47*RVMT!J$22	=COMWGT!H47*RVMT!K$22	=COMWGT!J47*RVMT!L$22	=COMWGT!K47*RVMT!M$22	=COMWGT!L47*RVMT!N$22
18	36-40	=REG!I17*RVMT!$R$5	=REG!J17*RVMT!$R$6	=REG!K17*RVMT!$R$7	=COMWGT!B48*RVMT!F$22	=COMWGT!C48*RVMT!G$22	=COMWGT!D48*RVMT!H$22	=COMWGT!F48*RVMT!I$22	=COMWGT!G48*RVMT!J$22	=COMWGT!H48*RVMT!K$22	=COMWGT!J48*RVMT!L$22	=COMWGT!K48*RVMT!M$22	=COMWGT!L48*RVMT!N$22
19	40-45	=REG!I18*RVMT!$R$5	=REG!J18*RVMT!$R$6	=REG!K18*RVMT!$R$7	=COMWGT!B49*RVMT!F$22	=COMWGT!C49*RVMT!G$22	=COMWGT!D49*RVMT!H$22	=COMWGT!F49*RVMT!I$22	=COMWGT!G49*RVMT!J$22	=COMWGT!H49*RVMT!K$22	=COMWGT!J49*RVMT!L$22	=COMWGT!K49*RVMT!M$22	=COMWGT!L49*RVMT!N$22
20	45-50	=REG!I19*RVMT!$R$5	=REG!J19*RVMT!$R$6	=REG!K19*RVMT!$R$7	=COMWGT!B50*RVMT!F$22	=COMWGT!C50*RVMT!G$22	=COMWGT!D50*RVMT!H$22	=COMWGT!F50*RVMT!I$22	=COMWGT!G50*RVMT!J$22	=COMWGT!H50*RVMT!K$22	=COMWGT!J50*RVMT!L$22	=COMWGT!K50*RVMT!M$22	=COMWGT!L50*RVMT!N$22
21	50-55	=REG!I20*RVMT!$R$5	=REG!J20*RVMT!$R$6	=REG!K20*RVMT!$R$7	=COMWGT!B51*RVMT!F$22	=COMWGT!C51*RVMT!G$22	=COMWGT!D51*RVMT!H$22	=COMWGT!F51*RVMT!I$22	=COMWGT!G51*RVMT!J$22	=COMWGT!H51*RVMT!K$22	=COMWGT!J51*RVMT!L$22	=COMWGT!K51*RVMT!M$22	=COMWGT!L51*RVMT!N$22
22	55-60	=REG!I21*RVMT!$R$5	=REG!J21*RVMT!$R$6	=REG!K21*RVMT!$R$7	=COMWGT!B52*RVMT!F$22	=COMWGT!C52*RVMT!G$22	=COMWGT!D52*RVMT!H$22	=COMWGT!F52*RVMT!I$22	=COMWGT!G52*RVMT!J$22	=COMWGT!H52*RVMT!K$22	=COMWGT!J52*RVMT!L$22	=COMWGT!K52*RVMT!M$22	=COMWGT!L52*RVMT!N$22
23	60-65	=REG!I22*RVMT!$R$5	=REG!J22*RVMT!$R$6	=REG!K22*RVMT!$R$7	=COMWGT!B53*RVMT!F$22	=COMWGT!C53*RVMT!G$22	=COMWGT!D53*RVMT!H$22	=COMWGT!F53*RVMT!I$22	=COMWGT!G53*RVMT!J$22	=COMWGT!H53*RVMT!K$22	=COMWGT!J53*RVMT!L$22	=COMWGT!K53*RVMT!M$22	=COMWGT!L53*RVMT!N$22
24	65-70	=REG!I23*RVMT!$R$5	=REG!J23*RVMT!$R$6	=REG!K23*RVMT!$R$7	=COMWGT!B54*RVMT!F$22	=COMWGT!C54*RVMT!G$22	=COMWGT!D54*RVMT!H$22	=COMWGT!F54*RVMT!I$22	=COMWGT!G54*RVMT!J$22	=COMWGT!H54*RVMT!K$22	=COMWGT!J54*RVMT!L$22	=COMWGT!K54*RVMT!M$22	=COMWGT!L54*RVMT!N$22
25	70-75	=REG!I24*RVMT!$R$5	=REG!J24*RVMT!$R$6	=REG!K24*RVMT!$R$7	=COMWGT!B55*RVMT!F$22	=COMWGT!C55*RVMT!G$22	=COMWGT!D55*RVMT!H$22	=COMWGT!F55*RVMT!I$22	=COMWGT!G55*RVMT!J$22	=COMWGT!H55*RVMT!K$22	=COMWGT!J55*RVMT!L$22	=COMWGT!K55*RVMT!M$22	=COMWGT!L55*RVMT!N$22
26	75-80	=REG!I25*RVMT!$R$5	=REG!J25*RVMT!$R$6	=REG!K25*RVMT!$R$7	=COMWGT!B56*RVMT!F$22	=COMWGT!C56*RVMT!G$22	=COMWGT!D56*RVMT!H$22	=COMWGT!F56*RVMT!I$22	=COMWGT!G56*RVMT!J$22	=COMWGT!H56*RVMT!K$22	=COMWGT!J56*RVMT!L$22	=COMWGT!K56*RVMT!M$22	=COMWGT!L56*RVMT!N$22
27	**Total**	=SUM(B4:B26)	=SUM(C4:C26)	=SUM(D4:D26)	=SUM(E4:E26)	=SUM(F4:F26)	=SUM(G4:G26)	=SUM(H4:H26)	=SUM(I4:I26)	=SUM(J4:J26)	=SUM(K4:K26)	=SUM(L4:L26)	=SUM(M4:M26)
28													

RTRAF WGT

	A	B	C	D	E	F	G	H	I	J	K	L	M
29	Adjusted Proportion of Rural Traffic by Vehicle Class												
30		Autos	Pick-ups	Buses	SU			CMB Single Trailer			CMB Multi-trailer		
31					2A 6T	3A	4A	CS 4A	CS 5A	CS 6A	CM 5A	CM 6A	CM 7A
32	0-8	=B4*(1/SUM($B$27:$M$27))	=C4*(1/SUM($B$27:$M$27))	=D4*(1/SUM($B$27:$M$27))	=E4*(1/SUM($B$27:$M$27))	=F4*(1/SUM($B$27:$M$27))	=G4*(1/SUM($B$27:$M$27))	=H4*(1/SUM($B$27:$M$27))	=I4*(1/SUM($B$27:$M$27))	=J4*(1/SUM($B$27:$M$27))	=K4*(1/SUM($B$27:$M$27))	=L4*(1/SUM($B$27:$M$27))	=M4*(1/SUM($B$27:$M$27))
33	8-10	=B5*(1/SUM($B$27:$M$27))	=C5*(1/SUM($B$27:$M$27))	=D5*(1/SUM($B$27:$M$27))	=E5*(1/SUM($B$27:$M$27))	=F5*(1/SUM($B$27:$M$27))	=G5*(1/SUM($B$27:$M$27))	=H5*(1/SUM($B$27:$M$27))	=I5*(1/SUM($B$27:$M$27))	=J5*(1/SUM($B$27:$M$27))	=K5*(1/SUM($B$27:$M$27))	=L5*(1/SUM($B$27:$M$27))	=M5*(1/SUM($B$27:$M$27))
34	10-12	=B6*(1/SUM($B$27:$M$27))	=C6*(1/SUM($B$27:$M$27))	=D6*(1/SUM($B$27:$M$27))	=E6*(1/SUM($B$27:$M$27))	=F6*(1/SUM($B$27:$M$27))	=G6*(1/SUM($B$27:$M$27))	=H6*(1/SUM($B$27:$M$27))	=I6*(1/SUM($B$27:$M$27))	=J6*(1/SUM($B$27:$M$27))	=K6*(1/SUM($B$27:$M$27))	=L6*(1/SUM($B$27:$M$27))	=M6*(1/SUM($B$27:$M$27))
35	12-14	=B7*(1/SUM($B$27:$M$27))	=C7*(1/SUM($B$27:$M$27))	=D7*(1/SUM($B$27:$M$27))	=E7*(1/SUM($B$27:$M$27))	=F7*(1/SUM($B$27:$M$27))	=G7*(1/SUM($B$27:$M$27))	=H7*(1/SUM($B$27:$M$27))	=I7*(1/SUM($B$27:$M$27))	=J7*(1/SUM($B$27:$M$27))	=K7*(1/SUM($B$27:$M$27))	=L7*(1/SUM($B$27:$M$27))	=M7*(1/SUM($B$27:$M$27))
36	14-16	=B8*(1/SUM($B$27:$M$27))	=C8*(1/SUM($B$27:$M$27))	=D8*(1/SUM($B$27:$M$27))	=E8*(1/SUM($B$27:$M$27))	=F8*(1/SUM($B$27:$M$27))	=G8*(1/SUM($B$27:$M$27))	=H8*(1/SUM($B$27:$M$27))	=I8*(1/SUM($B$27:$M$27))	=J8*(1/SUM($B$27:$M$27))	=K8*(1/SUM($B$27:$M$27))	=L8*(1/SUM($B$27:$M$27))	=M8*(1/SUM($B$27:$M$27))
37	16-18	=B9*(1/SUM($B$27:$M$27))	=C9*(1/SUM($B$27:$M$27))	=D9*(1/SUM($B$27:$M$27))	=E9*(1/SUM($B$27:$M$27))	=F9*(1/SUM($B$27:$M$27))	=G9*(1/SUM($B$27:$M$27))	=H9*(1/SUM($B$27:$M$27))	=I9*(1/SUM($B$27:$M$27))	=J9*(1/SUM($B$27:$M$27))	=K9*(1/SUM($B$27:$M$27))	=L9*(1/SUM($B$27:$M$27))	=M9*(1/SUM($B$27:$M$27))
38	18-20	=B10*(1/SUM($B$27:$M$27))	=C10*(1/SUM($B$27:$M$27))	=D10*(1/SUM($B$27:$M$27))	=E10*(1/SUM($B$27:$M$27))	=F10*(1/SUM($B$27:$M$27))	=G10*(1/SUM($B$27:$M$27))	=H10*(1/SUM($B$27:$M$27))	=I10*(1/SUM($B$27:$M$27))	=J10*(1/SUM($B$27:$M$27))	=K10*(1/SUM($B$27:$M$27))	=L10*(1/SUM($B$27:$M$27))	=M10*(1/SUM($B$27:$M$27))
39	20-22	=B11*(1/SUM($B$27:$M$27))	=C11*(1/SUM($B$27:$M$27))	=D11*(1/SUM($B$27:$M$27))	=E11*(1/SUM($B$27:$M$27))	=F11*(1/SUM($B$27:$M$27))	=G11*(1/SUM($B$27:$M$27))	=H11*(1/SUM($B$27:$M$27))	=I11*(1/SUM($B$27:$M$27))	=J11*(1/SUM($B$27:$M$27))	=K11*(1/SUM($B$27:$M$27))	=L11*(1/SUM($B$27:$M$27))	=M11*(1/SUM($B$27:$M$27))
40	22-24	=B12*(1/SUM($B$27:$M$27))	=C12*(1/SUM($B$27:$M$27))	=D12*(1/SUM($B$27:$M$27))	=E12*(1/SUM($B$27:$M$27))	=F12*(1/SUM($B$27:$M$27))	=G12*(1/SUM($B$27:$M$27))	=H12*(1/SUM($B$27:$M$27))	=I12*(1/SUM($B$27:$M$27))	=J12*(1/SUM($B$27:$M$27))	=K12*(1/SUM($B$27:$M$27))	=L12*(1/SUM($B$27:$M$27))	=M12*(1/SUM($B$27:$M$27))
41	24-26	=B13*(1/SUM($B$27:$M$27))	=C13*(1/SUM($B$27:$M$27))	=D13*(1/SUM($B$27:$M$27))	=E13*(1/SUM($B$27:$M$27))	=F13*(1/SUM($B$27:$M$27))	=G13*(1/SUM($B$27:$M$27))	=H13*(1/SUM($B$27:$M$27))	=I13*(1/SUM($B$27:$M$27))	=J13*(1/SUM($B$27:$M$27))	=K13*(1/SUM($B$27:$M$27))	=L13*(1/SUM($B$27:$M$27))	=M13*(1/SUM($B$27:$M$27))
42	26-28	=B14*(1/SUM($B$27:$M$27))	=C14*(1/SUM($B$27:$M$27))	=D14*(1/SUM($B$27:$M$27))	=E14*(1/SUM($B$27:$M$27))	=F14*(1/SUM($B$27:$M$27))	=G14*(1/SUM($B$27:$M$27))	=H14*(1/SUM($B$27:$M$27))	=I14*(1/SUM($B$27:$M$27))	=J14*(1/SUM($B$27:$M$27))	=K14*(1/SUM($B$27:$M$27))	=L14*(1/SUM($B$27:$M$27))	=M14*(1/SUM($B$27:$M$27))
43	28-30	=B15*(1/SUM($B$27:$M$27))	=C15*(1/SUM($B$27:$M$27))	=D15*(1/SUM($B$27:$M$27))	=E15*(1/SUM($B$27:$M$27))	=F15*(1/SUM($B$27:$M$27))	=G15*(1/SUM($B$27:$M$27))	=H15*(1/SUM($B$27:$M$27))	=I15*(1/SUM($B$27:$M$27))	=J15*(1/SUM($B$27:$M$27))	=K15*(1/SUM($B$27:$M$27))	=L15*(1/SUM($B$27:$M$27))	=M15*(1/SUM($B$27:$M$27))
44	30-32	=B16*(1/SUM($B$27:$M$27))	=C16*(1/SUM($B$27:$M$27))	=D16*(1/SUM($B$27:$M$27))	=E16*(1/SUM($B$27:$M$27))	=F16*(1/SUM($B$27:$M$27))	=G16*(1/SUM($B$27:$M$27))	=H16*(1/SUM($B$27:$M$27))	=I16*(1/SUM($B$27:$M$27))	=J16*(1/SUM($B$27:$M$27))	=K16*(1/SUM($B$27:$M$27))	=L16*(1/SUM($B$27:$M$27))	=M16*(1/SUM($B$27:$M$27))
45	32-36	=B17*(1/SUM($B$27:$M$27))	=C17*(1/SUM($B$27:$M$27))	=D17*(1/SUM($B$27:$M$27))	=E17*(1/SUM($B$27:$M$27))	=F17*(1/SUM($B$27:$M$27))	=G17*(1/SUM($B$27:$M$27))	=H17*(1/SUM($B$27:$M$27))	=I17*(1/SUM($B$27:$M$27))	=J17*(1/SUM($B$27:$M$27))	=K17*(1/SUM($B$27:$M$27))	=L17*(1/SUM($B$27:$M$27))	=M17*(1/SUM($B$27:$M$27))
46	36-40	=B18*(1/SUM($B$27:$M$27))	=C18*(1/SUM($B$27:$M$27))	=D18*(1/SUM($B$27:$M$27))	=E18*(1/SUM($B$27:$M$27))	=F18*(1/SUM($B$27:$M$27))	=G18*(1/SUM($B$27:$M$27))	=H18*(1/SUM($B$27:$M$27))	=I18*(1/SUM($B$27:$M$27))	=J18*(1/SUM($B$27:$M$27))	=K18*(1/SUM($B$27:$M$27))	=L18*(1/SUM($B$27:$M$27))	=M18*(1/SUM($B$27:$M$27))
47	40-45	=B19*(1/SUM($B$27:$M$27))	=C19*(1/SUM($B$27:$M$27))	=D19*(1/SUM($B$27:$M$27))	=E19*(1/SUM($B$27:$M$27))	=F19*(1/SUM($B$27:$M$27))	=G19*(1/SUM($B$27:$M$27))	=H19*(1/SUM($B$27:$M$27))	=I19*(1/SUM($B$27:$M$27))	=J19*(1/SUM($B$27:$M$27))	=K19*(1/SUM($B$27:$M$27))	=L19*(1/SUM($B$27:$M$27))	=M19*(1/SUM($B$27:$M$27))
48	45-50	=B20*(1/SUM($B$27:$M$27))	=C20*(1/SUM($B$27:$M$27))	=D20*(1/SUM($B$27:$M$27))	=E20*(1/SUM($B$27:$M$27))	=F20*(1/SUM($B$27:$M$27))	=G20*(1/SUM($B$27:$M$27))	=H20*(1/SUM($B$27:$M$27))	=I20*(1/SUM($B$27:$M$27))	=J20*(1/SUM($B$27:$M$27))	=K20*(1/SUM($B$27:$M$27))	=L20*(1/SUM($B$27:$M$27))	=M20*(1/SUM($B$27:$M$27))
49	50-55	=B21*(1/SUM($B$27:$M$27))	=C21*(1/SUM($B$27:$M$27))	=D21*(1/SUM($B$27:$M$27))	=E21*(1/SUM($B$27:$M$27))	=F21*(1/SUM($B$27:$M$27))	=G21*(1/SUM($B$27:$M$27))	=H21*(1/SUM($B$27:$M$27))	=I21*(1/SUM($B$27:$M$27))	=J21*(1/SUM($B$27:$M$27))	=K21*(1/SUM($B$27:$M$27))	=L21*(1/SUM($B$27:$M$27))	=M21*(1/SUM($B$27:$M$27))
50	55-60	=B22*(1/SUM($B$27:$M$27))	=C22*(1/SUM($B$27:$M$27))	=D22*(1/SUM($B$27:$M$27))	=E22*(1/SUM($B$27:$M$27))	=F22*(1/SUM($B$27:$M$27))	=G22*(1/SUM($B$27:$M$27))	=H22*(1/SUM($B$27:$M$27))	=I22*(1/SUM($B$27:$M$27))	=J22*(1/SUM($B$27:$M$27))	=K22*(1/SUM($B$27:$M$27))	=L22*(1/SUM($B$27:$M$27))	=M22*(1/SUM($B$27:$M$27))
51	60-65	=B23*(1/SUM($B$27:$M$27))	=C23*(1/SUM($B$27:$M$27))	=D23*(1/SUM($B$27:$M$27))	=E23*(1/SUM($B$27:$M$27))	=F23*(1/SUM($B$27:$M$27))	=G23*(1/SUM($B$27:$M$27))	=H23*(1/SUM($B$27:$M$27))	=I23*(1/SUM($B$27:$M$27))	=J23*(1/SUM($B$27:$M$27))	=K23*(1/SUM($B$27:$M$27))	=L23*(1/SUM($B$27:$M$27))	=M23*(1/SUM($B$27:$M$27))
52	65-70	=B24*(1/SUM($B$27:$M$27))	=C24*(1/SUM($B$27:$M$27))	=D24*(1/SUM($B$27:$M$27))	=E24*(1/SUM($B$27:$M$27))	=F24*(1/SUM($B$27:$M$27))	=G24*(1/SUM($B$27:$M$27))	=H24*(1/SUM($B$27:$M$27))	=I24*(1/SUM($B$27:$M$27))	=J24*(1/SUM($B$27:$M$27))	=K24*(1/SUM($B$27:$M$27))	=L24*(1/SUM($B$27:$M$27))	=M24*(1/SUM($B$27:$M$27))
53	70-75	=B25*(1/SUM($B$27:$M$27))	=C25*(1/SUM($B$27:$M$27))	=D25*(1/SUM($B$27:$M$27))	=E25*(1/SUM($B$27:$M$27))	=F25*(1/SUM($B$27:$M$27))	=G25*(1/SUM($B$27:$M$27))	=H25*(1/SUM($B$27:$M$27))	=I25*(1/SUM($B$27:$M$27))	=J25*(1/SUM($B$27:$M$27))	=K25*(1/SUM($B$27:$M$27))	=L25*(1/SUM($B$27:$M$27))	=M25*(1/SUM($B$27:$M$27))
54	75-80	=B26*(1/SUM($B$27:$M$27))	=C26*(1/SUM($B$27:$M$27))	=D26*(1/SUM($B$27:$M$27))	=E26*(1/SUM($B$27:$M$27))	=F26*(1/SUM($B$27:$M$27))	=G26*(1/SUM($B$27:$M$27))	=H26*(1/SUM($B$27:$M$27))	=I26*(1/SUM($B$27:$M$27))	=J26*(1/SUM($B$27:$M$27))	=K26*(1/SUM($B$27:$M$27))	=L26*(1/SUM($B$27:$M$27))	=M26*(1/SUM($B$27:$M$27))
55	Total	=SUM(B32:B54)	=SUM(C32:C54)	=SUM(D32:D54)	=SUM(E32:E54)	=SUM(F32:F54)	=SUM(G32:G54)	=SUM(H32:H54)	=SUM(I32:I54)	=SUM(J32:J54)	=SUM(K32:K54)	=SUM(L32:L54)	=SUM(M32:M54)
56													
57													
58													

RTRAF WGT

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
59	**Proportion of Rural Traffic Adjusted by Axle-Miles**														**Axle-Mile Travel ADJ**	
60		**2**	**2**	**3**	**SU**			**CMB Single Trailer**			**CMB Multi-trailer**					
61					**2**	**3**	**4**	**4**	**5**	**6**	**5**	**6**	**7**		**VEH**	**PROJ SHR**
62	0-8	=B$60*B4	=C$60*C4	=D$60*D4	=E$61*E4	=F$61*F4	=G$61*G4	=H$61*H4	=I$61*I4	=J$61*J4	=K$61*K4	=L$61*L4	=M$61*M4		Autos	=B113
63	8-10	=B$60*B5	=C$60*C5	=D$60*D5	=E$61*E5	=F$61*F5	=G$61*G5	=H$61*H5	=I$61*I5	=J$61*J5	=K$61*K5	=L$61*L5	=M$61*M5		PU	=C113
64	10-12	=B$60*B6	=C$60*C6	=D$60*D6	=E$61*E6	=F$61*F6	=G$61*G6	=H$61*H6	=I$61*I6	=J$61*J6	=K$61*K6	=L$61*L6	=M$61*M6		Buses	=D113
65	12-14	=B$60*B7	=C$60*C7	=D$60*D7	=E$61*E7	=F$61*F7	=G$61*G7	=H$61*H7	=I$61*I7	=J$61*J7	=K$61*K7	=L$61*L7	=M$61*M7		SU	=SUM(E113:G113)
66	14-16	=B$60*B8	=C$60*C8	=D$60*D8	=E$61*E8	=F$61*F8	=G$61*G8	=H$61*H8	=I$61*I8	=J$61*J8	=K$61*K8	=L$61*L8	=M$61*M8		CMB	=SUM(H113:M113)
67	16-18	=B$60*B9	=C$60*C9	=D$60*D9	=E$61*E9	=F$61*F9	=G$61*G9	=H$61*H9	=I$61*I9	=J$61*J9	=K$61*K9	=L$61*L9	=M$61*M9			
68	18-20	=B$60*B10	=C$60*C10	=D$60*D10	=E$61*E10	=F$61*F10	=G$61*G10	=H$61*H10	=I$61*I10	=J$61*J10	=K$61*K10	=L$61*L10	=M$61*M10			
69	20-22	=B$60*B11	=C$60*C11	=D$60*D11	=E$61*E11	=F$61*F11	=G$61*G11	=H$61*H11	=I$61*I11	=J$61*J11	=K$61*K11	=L$61*L11	=M$61*M11			
70	22-24	=B$60*B12	=C$60*C12	=D$60*D12	=E$61*E12	=F$61*F12	=G$61*G12	=H$61*H12	=I$61*I12	=J$61*J12	=K$61*K12	=L$61*L12	=M$61*M12		**WGT**	**PROJ SHR**
71	24-26	=B$60*B13	=C$60*C13	=D$60*D13	=E$61*E13	=F$61*F13	=G$61*G13	=H$61*H13	=I$61*I13	=J$61*J13	=K$61*K13	=L$61*L13	=M$61*M13		0-8	=SUM(B90:M90)
72	26-28	=B$60*B14	=C$60*C14	=D$60*D14	=E$61*E14	=F$61*F14	=G$61*G14	=H$61*H14	=I$61*I14	=J$61*J14	=K$61*K14	=L$61*L14	=M$61*M14		8-10	=SUM(B91:M91)
73	28-30	=B$60*B15	=C$60*C15	=D$60*D15	=E$61*E15	=F$61*F15	=G$61*G15	=H$61*H15	=I$61*I15	=J$61*J15	=K$61*K15	=L$61*L15	=M$61*M15		10-12	=SUM(B92:M92)
74	30-32	=B$60*B16	=C$60*C16	=D$60*D16	=E$61*E16	=F$61*F16	=G$61*G16	=H$61*H16	=I$61*I16	=J$61*J16	=K$61*K16	=L$61*L16	=M$61*M16		12-14	=SUM(B93:M93)
75	32-36	=B$60*B17	=C$60*C17	=D$60*D17	=E$61*E17	=F$61*F17	=G$61*G17	=H$61*H17	=I$61*I17	=J$61*J17	=K$61*K17	=L$61*L17	=M$61*M17		14-16	=SUM(B94:M94)
76	36-40	=B$60*B18	=C$60*C18	=D$60*D18	=E$61*E18	=F$61*F18	=G$61*G18	=H$61*H18	=I$61*I18	=J$61*J18	=K$61*K18	=L$61*L18	=M$61*M18		16-18	=SUM(B95:M95)
77	40-45	=B$60*B19	=C$60*C19	=D$60*D19	=E$61*E19	=F$61*F19	=G$61*G19	=H$61*H19	=I$61*I19	=J$61*J19	=K$61*K19	=L$61*L19	=M$61*M19		18-20	=SUM(B96:M96)
78	45-50	=B$60*B20	=C$60*C20	=D$60*D20	=E$61*E20	=F$61*F20	=G$61*G20	=H$61*H20	=I$61*I20	=J$61*J20	=K$61*K20	=L$61*L20	=M$61*M20		20-22	=SUM(B97:M97)
79	50-55	=B$60*B21	=C$60*C21	=D$60*D21	=E$61*E21	=F$61*F21	=G$61*G21	=H$61*H21	=I$61*I21	=J$61*J21	=K$61*K21	=L$61*L21	=M$61*M21		22-24	=SUM(B98:M98)
80	55-60	=B$60*B22	=C$60*C22	=D$60*D22	=E$61*E22	=F$61*F22	=G$61*G22	=H$61*H22	=I$61*I22	=J$61*J22	=K$61*K22	=L$61*L22	=M$61*M22		24-26	=SUM(B99:M99)
81	60-65	=B$60*B23	=C$60*C23	=D$60*D23	=E$61*E23	=F$61*F23	=G$61*G23	=H$61*H23	=I$61*I23	=J$61*J23	=K$61*K23	=L$61*L23	=M$61*M23		26-28	=SUM(B100:M100)
82	65-70	=B$60*B24	=C$60*C24	=D$60*D24	=E$61*E24	=F$61*F24	=G$61*G24	=H$61*H24	=I$61*I24	=J$61*J24	=K$61*K24	=L$61*L24	=M$61*M24		28-30	=SUM(B101:M101)
83	70-75	=B$60*B25	=C$60*C25	=D$60*D25	=E$61*E25	=F$61*F25	=G$61*G25	=H$61*H25	=I$61*I25	=J$61*J25	=K$61*K25	=L$61*L25	=M$61*M25		30-32	=SUM(B102:M102)
84	75-80	=B$60*B26	=C$60*C26	=D$60*D26	=E$61*E26	=F$61*F26	=G$61*G26	=H$61*H26	=I$61*I26	=J$61*J26	=K$61*K26	=L$61*L26	=M$61*M26		32-36	=SUM(B103:M103)
85	**Total**	=SUM(B62:B84)	=SUM(C62:C84)	=SUM(D62:D84)	=SUM(E62:E84)	=SUM(F62:F84)	=SUM(G62:G84)	=SUM(H62:H84)	=SUM(I62:I84)	=SUM(J62:J84)	=SUM(K62:K84)	=SUM(L62:L84)	=SUM(M62:M84)		36-40	=SUM(B104:M104)
86															40-45	=SUM(B105:M105)
87	**Adjusted Proportion of Rural Traffic by Axle-Miles**														45-50	=SUM(B106:M106)
88		**2**	**2**	**3**	**SU**			**CMB Single Trailer**			**CMB Multi-trailer**				50-55	=SUM(B107:M107)
89					**2**	**3**	**4**	**4**	**5**	**6**	**5**	**6**	**7**		55-60	=SUM(B108:M108)
90	0-8	=B62/SUM($B$62:$M$84)	=C62/SUM($B$62:$M$84)	=D62/SUM($B$62:$M$84)	=E62/SUM($B$62:$M$84)	=F62/SUM($B$62:$M$84)	=G62/SUM($B$62:$M$84)	=H62/SUM($B$62:$M$84)	=I62/SUM($B$62:$M$84)	=J62/SUM($B$62:$M$84)	=K62/SUM($B$62:$M$84)	=L62/SUM($B$62:$M$84)	=M62/SUM($B$62:$M$84)		60-65	=SUM(B109:M109)
91	8-10	=B63/SUM($B$62:$M$84)	=C63/SUM($B$62:$M$84)	=D63/SUM($B$62:$M$84)	=E63/SUM($B$62:$M$84)	=F63/SUM($B$62:$M$84)	=G63/SUM($B$62:$M$84)	=H63/SUM($B$62:$M$84)	=I63/SUM($B$62:$M$84)	=J63/SUM($B$62:$M$84)	=K63/SUM($B$62:$M$84)	=L63/SUM($B$62:$M$84)	=M63/SUM($B$62:$M$84)		65-70	=SUM(B110:M110)
92	10-12	=B64/SUM($B$62:$M$84)	=C64/SUM($B$62:$M$84)	=D64/SUM($B$62:$M$84)	=E64/SUM($B$62:$M$84)	=F64/SUM($B$62:$M$84)	=G64/SUM($B$62:$M$84)	=H64/SUM($B$62:$M$84)	=I64/SUM($B$62:$M$84)	=J64/SUM($B$62:$M$84)	=K64/SUM($B$62:$M$84)	=L64/SUM($B$62:$M$84)	=M64/SUM($B$62:$M$84)		70-75	=SUM(B111:M111)
93	12-14	=B65/SUM($B$62:$M$84)	=C65/SUM($B$62:$M$84)	=D65/SUM($B$62:$M$84)	=E65/SUM($B$62:$M$84)	=F65/SUM($B$62:$M$84)	=G65/SUM($B$62:$M$84)	=H65/SUM($B$62:$M$84)	=I65/SUM($B$62:$M$84)	=J65/SUM($B$62:$M$84)	=K65/SUM($B$62:$M$84)	=L65/SUM($B$62:$M$84)	=M65/SUM($B$62:$M$84)		75-80	=SUM(B112:M112)
94	14-16	=B66/SUM($B$62:$M$84)	=C66/SUM($B$62:$M$84)	=D66/SUM($B$62:$M$84)	=E66/SUM($B$62:$M$84)	=F66/SUM($B$62:$M$84)	=G66/SUM($B$62:$M$84)	=H66/SUM($B$62:$M$84)	=I66/SUM($B$62:$M$84)	=J66/SUM($B$62:$M$84)	=K66/SUM($B$62:$M$84)	=L66/SUM($B$62:$M$84)	=M66/SUM($B$62:$M$84)		**Total**	**=SUM(P71:P93)**

RTRAF WGT

	A	B	C	D	E	F	G	H	I	J	K	L	M
95	16-18	=B67/SUM($B$62:$M$84)	=C67/SUM($B$62:$M$84)	=D67/SUM($B$62:$M$84)	=E67/SUM($B$62:$M$84)	=F67/SUM($B$62:$M$84)	=G67/SUM($B$62:$M$84)	=H67/SUM($B$62:$M$84)	=I67/SUM($B$62:$M$84)	=J67/SUM($B$62:$M$84)	=K67/SUM($B$62:$M$84)	=L67/SUM($B$62:$M$84)	=M67/SUM($B$62:$M$84)
96	18-20	=B68/SUM($B$62:$M$84)	=C68/SUM($B$62:$M$84)	=D68/SUM($B$62:$M$84)	=E68/SUM($B$62:$M$84)	=F68/SUM($B$62:$M$84)	=G68/SUM($B$62:$M$84)	=H68/SUM($B$62:$M$84)	=I68/SUM($B$62:$M$84)	=J68/SUM($B$62:$M$84)	=K68/SUM($B$62:$M$84)	=L68/SUM($B$62:$M$84)	=M68/SUM($B$62:$M$84)
97	20-22	=B69/SUM($B$62:$M$84)	=C69/SUM($B$62:$M$84)	=D69/SUM($B$62:$M$84)	=E69/SUM($B$62:$M$84)	=F69/SUM($B$62:$M$84)	=G69/SUM($B$62:$M$84)	=H69/SUM($B$62:$M$84)	=I69/SUM($B$62:$M$84)	=J69/SUM($B$62:$M$84)	=K69/SUM($B$62:$M$84)	=L69/SUM($B$62:$M$84)	=M69/SUM($B$62:$M$84)
98	22-24	=B70/SUM($B$62:$M$84)	=C70/SUM($B$62:$M$84)	=D70/SUM($B$62:$M$84)	=E70/SUM($B$62:$M$84)	=F70/SUM($B$62:$M$84)	=G70/SUM($B$62:$M$84)	=H70/SUM($B$62:$M$84)	=I70/SUM($B$62:$M$84)	=J70/SUM($B$62:$M$84)	=K70/SUM($B$62:$M$84)	=L70/SUM($B$62:$M$84)	=M70/SUM($B$62:$M$84)
99	24-26	=B71/SUM($B$62:$M$84)	=C71/SUM($B$62:$M$84)	=D71/SUM($B$62:$M$84)	=E71/SUM($B$62:$M$84)	=F71/SUM($B$62:$M$84)	=G71/SUM($B$62:$M$84)	=H71/SUM($B$62:$M$84)	=I71/SUM($B$62:$M$84)	=J71/SUM($B$62:$M$84)	=K71/SUM($B$62:$M$84)	=L71/SUM($B$62:$M$84)	=M71/SUM($B$62:$M$84)
100	26-28	=B72/SUM($B$62:$M$84)	=C72/SUM($B$62:$M$84)	=D72/SUM($B$62:$M$84)	=E72/SUM($B$62:$M$84)	=F72/SUM($B$62:$M$84)	=G72/SUM($B$62:$M$84)	=H72/SUM($B$62:$M$84)	=I72/SUM($B$62:$M$84)	=J72/SUM($B$62:$M$84)	=K72/SUM($B$62:$M$84)	=L72/SUM($B$62:$M$84)	=M72/SUM($B$62:$M$84)
101	28-30	=B73/SUM($B$62:$M$84)	=C73/SUM($B$62:$M$84)	=D73/SUM($B$62:$M$84)	=E73/SUM($B$62:$M$84)	=F73/SUM($B$62:$M$84)	=G73/SUM($B$62:$M$84)	=H73/SUM($B$62:$M$84)	=I73/SUM($B$62:$M$84)	=J73/SUM($B$62:$M$84)	=K73/SUM($B$62:$M$84)	=L73/SUM($B$62:$M$84)	=M73/SUM($B$62:$M$84)
102	30-32	=B74/SUM($B$62:$M$84)	=C74/SUM($B$62:$M$84)	=D74/SUM($B$62:$M$84)	=E74/SUM($B$62:$M$84)	=F74/SUM($B$62:$M$84)	=G74/SUM($B$62:$M$84)	=H74/SUM($B$62:$M$84)	=I74/SUM($B$62:$M$84)	=J74/SUM($B$62:$M$84)	=K74/SUM($B$62:$M$84)	=L74/SUM($B$62:$M$84)	=M74/SUM($B$62:$M$84)
103	32-36	=B75/SUM($B$62:$M$84)	=C75/SUM($B$62:$M$84)	=D75/SUM($B$62:$M$84)	=E75/SUM($B$62:$M$84)	=F75/SUM($B$62:$M$84)	=G75/SUM($B$62:$M$84)	=H75/SUM($B$62:$M$84)	=I75/SUM($B$62:$M$84)	=J75/SUM($B$62:$M$84)	=K75/SUM($B$62:$M$84)	=L75/SUM($B$62:$M$84)	=M75/SUM($B$62:$M$84)
104	36-40	=B76/SUM($B$62:$M$84)	=C76/SUM($B$62:$M$84)	=D76/SUM($B$62:$M$84)	=E76/SUM($B$62:$M$84)	=F76/SUM($B$62:$M$84)	=G76/SUM($B$62:$M$84)	=H76/SUM($B$62:$M$84)	=I76/SUM($B$62:$M$84)	=J76/SUM($B$62:$M$84)	=K76/SUM($B$62:$M$84)	=L76/SUM($B$62:$M$84)	=M76/SUM($B$62:$M$84)
105	40-45	=B77/SUM($B$62:$M$84)	=C77/SUM($B$62:$M$84)	=D77/SUM($B$62:$M$84)	=E77/SUM($B$62:$M$84)	=F77/SUM($B$62:$M$84)	=G77/SUM($B$62:$M$84)	=H77/SUM($B$62:$M$84)	=I77/SUM($B$62:$M$84)	=J77/SUM($B$62:$M$84)	=K77/SUM($B$62:$M$84)	=L77/SUM($B$62:$M$84)	=M77/SUM($B$62:$M$84)
106	45-50	=B78/SUM($B$62:$M$84)	=C78/SUM($B$62:$M$84)	=D78/SUM($B$62:$M$84)	=E78/SUM($B$62:$M$84)	=F78/SUM($B$62:$M$84)	=G78/SUM($B$62:$M$84)	=H78/SUM($B$62:$M$84)	=I78/SUM($B$62:$M$84)	=J78/SUM($B$62:$M$84)	=K78/SUM($B$62:$M$84)	=L78/SUM($B$62:$M$84)	=M78/SUM($B$62:$M$84)
107	50-55	=B79/SUM($B$62:$M$84)	=C79/SUM($B$62:$M$84)	=D79/SUM($B$62:$M$84)	=E79/SUM($B$62:$M$84)	=F79/SUM($B$62:$M$84)	=G79/SUM($B$62:$M$84)	=H79/SUM($B$62:$M$84)	=I79/SUM($B$62:$M$84)	=J79/SUM($B$62:$M$84)	=K79/SUM($B$62:$M$84)	=L79/SUM($B$62:$M$84)	=M79/SUM($B$62:$M$84)
108	55-60	=B80/SUM($B$62:$M$84)	=C80/SUM($B$62:$M$84)	=D80/SUM($B$62:$M$84)	=E80/SUM($B$62:$M$84)	=F80/SUM($B$62:$M$84)	=G80/SUM($B$62:$M$84)	=H80/SUM($B$62:$M$84)	=I80/SUM($B$62:$M$84)	=J80/SUM($B$62:$M$84)	=K80/SUM($B$62:$M$84)	=L80/SUM($B$62:$M$84)	=M80/SUM($B$62:$M$84)
109	60-65	=B81/SUM($B$62:$M$84)	=C81/SUM($B$62:$M$84)	=D81/SUM($B$62:$M$84)	=E81/SUM($B$62:$M$84)	=F81/SUM($B$62:$M$84)	=G81/SUM($B$62:$M$84)	=H81/SUM($B$62:$M$84)	=I81/SUM($B$62:$M$84)	=J81/SUM($B$62:$M$84)	=K81/SUM($B$62:$M$84)	=L81/SUM($B$62:$M$84)	=M81/SUM($B$62:$M$84)
110	65-70	=B82/SUM($B$62:$M$84)	=C82/SUM($B$62:$M$84)	=D82/SUM($B$62:$M$84)	=E82/SUM($B$62:$M$84)	=F82/SUM($B$62:$M$84)	=G82/SUM($B$62:$M$84)	=H82/SUM($B$62:$M$84)	=I82/SUM($B$62:$M$84)	=J82/SUM($B$62:$M$84)	=K82/SUM($B$62:$M$84)	=L82/SUM($B$62:$M$84)	=M82/SUM($B$62:$M$84)
111	70-75	=B83/SUM($B$62:$M$84)	=C83/SUM($B$62:$M$84)	=D83/SUM($B$62:$M$84)	=E83/SUM($B$62:$M$84)	=F83/SUM($B$62:$M$84)	=G83/SUM($B$62:$M$84)	=H83/SUM($B$62:$M$84)	=I83/SUM($B$62:$M$84)	=J83/SUM($B$62:$M$84)	=K83/SUM($B$62:$M$84)	=L83/SUM($B$62:$M$84)	=M83/SUM($B$62:$M$84)
112	75-80	=B84/SUM($B$62:$M$84)	=C84/SUM($B$62:$M$84)	=D84/SUM($B$62:$M$84)	=E84/SUM($B$62:$M$84)	=F84/SUM($B$62:$M$84)	=G84/SUM($B$62:$M$84)	=H84/SUM($B$62:$M$84)	=I84/SUM($B$62:$M$84)	=J84/SUM($B$62:$M$84)	=K84/SUM($B$62:$M$84)	=L84/SUM($B$62:$M$84)	=M84/SUM($B$62:$M$84)
113	**Total**	=SUM(B90:B112)	=SUM(C90:C112)	=SUM(D90:D112)	=SUM(E90:E112)	=SUM(F90:F112)	=SUM(G90:G112)	=SUM(H90:H112)	=SUM(I90:I112)	=SUM(J90:J112)	=SUM(K90:K112)	=SUM(L90:L112)	=SUM(M90:M112)

RTRAF WGT

	O	P	Q	R	S
1	**Non-Commercial Matrix - Rural**				**Commercial Matrix - Rural**
2	**WGT**	**Autos**	**Pick-ups**		**WEIGHT**
3					
4	0-8	=B32/SUM($B$55:$C$55)	=C32/SUM($B$55:$C$55)		0 - 8,000 lb.
5	8-10	=B33/SUM($B$55:$C$55)	=C33/SUM($B$55:$C$55)		8,000-10,000 lb.
6	10-12	=B34/SUM($B$55:$C$55)	=C34/SUM($B$55:$C$55)		10,000-12,000 lb.
7	12-14	=B35/SUM($B$55:$C$55)	=C35/SUM($B$55:$C$55)		12,000-14,000 lb.
8	14-16	=B36/SUM($B$55:$C$55)	=C36/SUM($B$55:$C$55)		14,000-16,000 lb.
9	16-18	=B37/SUM($B$55:$C$55)	=C37/SUM($B$55:$C$55)		16,000-18,000 lb.
10	18-20	=B38/SUM($B$55:$C$55)	=C38/SUM($B$55:$C$55)		18,000-20,000 lb.
11	20-22	=B39/SUM($B$55:$C$55)	=C39/SUM($B$55:$C$55)		20,000-22,000 lb.
12	22-24	=B40/SUM($B$55:$C$55)	=C40/SUM($B$55:$C$55)		22,000-24,000 lb.
13	24-26	=B41/SUM($B$55:$C$55)	=C41/SUM($B$55:$C$55)		24,000-26,000 lb.
14	26-28	=B42/SUM($B$55:$C$55)	=C42/SUM($B$55:$C$55)		26,000-28,000 lb.
15	28-30	=B43/SUM($B$55:$C$55)	=C43/SUM($B$55:$C$55)		28,000-30,000 lb.
16	30-32	=B44/SUM($B$55:$C$55)	=C44/SUM($B$55:$C$55)		30,000-32,000 lb.
17	32-36	=B45/SUM($B$55:$C$55)	=C45/SUM($B$55:$C$55)		32,000-36,000 lb.
18	36-40	=B46/SUM($B$55:$C$55)	=C46/SUM($B$55:$C$55)		36,000-40,000 lb.
19	40-45	=B47/SUM($B$55:$C$55)	=C47/SUM($B$55:$C$55)		40,000-45,000 lb.
20	45-50	=B48/SUM($B$55:$C$55)	=C48/SUM($B$55:$C$55)		45,000-50,000 lb.
21	50-55	=B49/SUM($B$55:$C$55)	=C49/SUM($B$55:$C$55)		50,000-55,000 lb.
22	55-60	=B50/SUM($B$55:$C$55)	=C50/SUM($B$55:$C$55)		55,000-60,000 lb.
23	60-65	=B51/SUM($B$55:$C$55)	=C51/SUM($B$55:$C$55)		60,000-65,000 lb.
24	65-70	=B52/SUM($B$55:$C$55)	=C52/SUM($B$55:$C$55)		65,000-70,000 lb.
25	70-75	=B53/SUM($B$55:$C$55)	=C53/SUM($B$55:$C$55)		70,000-75,000 lb.
26	75-80	=B54/SUM($B$55:$C$55)	=C54/SUM($B$55:$C$55)		75,000-80,000 lb.
27	Total	=SUM(P4:P26)	=SUM(Q4:Q26)		Total
28					
29					
30	**TOTAL**		**Commercial**	**SU**	**CMB**
31			**Commercial**		
32	=SUM(B32:M32)		=SUM(E32:M32)/SUM($E$55:$M$55)	=SUM(E32:G32)/SUM($E$55:$M$55)	=SUM(H32:M32)/SUM($E$55:$M$55)
33	=SUM(B33:M33)		=SUM(E33:M33)/SUM($E$55:$M$55)	=SUM(E33:G33)/SUM($E$55:$M$55)	=SUM(H33:M33)/SUM($E$55:$M$55)
34	=SUM(B34:M34)		=SUM(E34:M34)/SUM($E$55:$M$55)	=SUM(E34:G34)/SUM($E$55:$M$55)	=SUM(H34:M34)/SUM($E$55:$M$55)
35	=SUM(B35:M35)		=SUM(E35:M35)/SUM($E$55:$M$55)	=SUM(E35:G35)/SUM($E$55:$M$55)	=SUM(H35:M35)/SUM($E$55:$M$55)
36	=SUM(B36:M36)		=SUM(E36:M36)/SUM($E$55:$M$55)	=SUM(E36:G36)/SUM($E$55:$M$55)	=SUM(H36:M36)/SUM($E$55:$M$55)
37	=SUM(B37:M37)		=SUM(E37:M37)/SUM($E$55:$M$55)	=SUM(E37:G37)/SUM($E$55:$M$55)	=SUM(H37:M37)/SUM($E$55:$M$55)
38	=SUM(B38:M38)		=SUM(E38:M38)/SUM($E$55:$M$55)	=SUM(E38:G38)/SUM($E$55:$M$55)	=SUM(H38:M38)/SUM($E$55:$M$55)
39	=SUM(B39:M39)		=SUM(E39:M39)/SUM($E$55:$M$55)	=SUM(E39:G39)/SUM($E$55:$M$55)	=SUM(H39:M39)/SUM($E$55:$M$55)
40	=SUM(B40:M40)		=SUM(E40:M40)/SUM($E$55:$M$55)	=SUM(E40:G40)/SUM($E$55:$M$55)	=SUM(H40:M40)/SUM($E$55:$M$55)
41	=SUM(B41:M41)		=SUM(E41:M41)/SUM($E$55:$M$55)	=SUM(E41:G41)/SUM($E$55:$M$55)	=SUM(H41:M41)/SUM($E$55:$M$55)
42	=SUM(B42:M42)		=SUM(E42:M42)/SUM($E$55:$M$55)	=SUM(E42:G42)/SUM($E$55:$M$55)	=SUM(H42:M42)/SUM($E$55:$M$55)
43	=SUM(B43:M43)		=SUM(E43:M43)/SUM($E$55:$M$55)	=SUM(E43:G43)/SUM($E$55:$M$55)	=SUM(H43:M43)/SUM($E$55:$M$55)
44	=SUM(B44:M44)		=SUM(E44:M44)/SUM($E$55:$M$55)	=SUM(E44:G44)/SUM($E$55:$M$55)	=SUM(H44:M44)/SUM($E$55:$M$55)
45	=SUM(B45:M45)		=SUM(E45:M45)/SUM($E$55:$M$55)	=SUM(E45:G45)/SUM($E$55:$M$55)	=SUM(H45:M45)/SUM($E$55:$M$55)
46	=SUM(B46:M46)		=SUM(E46:M46)/SUM($E$55:$M$55)	=SUM(E46:G46)/SUM($E$55:$M$55)	=SUM(H46:M46)/SUM($E$55:$M$55)
47	=SUM(B47:M47)		=SUM(E47:M47)/SUM($E$55:$M$55)	=SUM(E47:G47)/SUM($E$55:$M$55)	=SUM(H47:M47)/SUM($E$55:$M$55)
48	=SUM(B48:M48)		=SUM(E48:M48)/SUM($E$55:$M$55)	=SUM(E48:G48)/SUM($E$55:$M$55)	=SUM(H48:M48)/SUM($E$55:$M$55)
49	=SUM(B49:M49)		=SUM(E49:M49)/SUM($E$55:$M$55)	=SUM(E49:G49)/SUM($E$55:$M$55)	=SUM(H49:M49)/SUM($E$55:$M$55)

RTRAF WGT

	O	P	Q	R	S
50	=SUM(B50:M50)		=SUM(E50:M50)/SUM($E$55:$M$55)	=SUM(E50:G50)/SUM($E$55:$M$55)	=SUM(H50:M50)/SUM($E$55:$M$55)
51	=SUM(B51:M51)		=SUM(E51:M51)/SUM($E$55:$M$55)	=SUM(E51:G51)/SUM($E$55:$M$55)	=SUM(H51:M51)/SUM($E$55:$M$55)
52	=SUM(B52:M52)		=SUM(E52:M52)/SUM($E$55:$M$55)	=SUM(E52:G52)/SUM($E$55:$M$55)	=SUM(H52:M52)/SUM($E$55:$M$55)
53	=SUM(B53:M53)		=SUM(E53:M53)/SUM($E$55:$M$55)	=SUM(E53:G53)/SUM($E$55:$M$55)	=SUM(H53:M53)/SUM($E$55:$M$55)
54	=SUM(B54:M54)		=SUM(E54:M54)/SUM($E$55:$M$55)	=SUM(E54:G54)/SUM($E$55:$M$55)	=SUM(H54:M54)/SUM($E$55:$M$55)
55	=SUM(O32:O54)		=SUM(Q32:Q54)	=SUM(R32:R54)	=SUM(S32:S54)

	T	U	V	W	X	Y	Z	AA	AB	AC
1										
2	**Buses**	**SU**			**CMB Single Trailer**			**CMB Multi-trailer**		
3		**2A 6T**	**3A**	**4A**	**CS 4A**	**CS 5A**	**CS 6A**	**CM 5A**	**CM 6A**	**CM 7A**
4	=D32/SUM($D$55:$M$55)	=E32/SUM($D$55:$M$55)	=F32/SUM($D$55:$M$55)	=G32/SUM($D$55:$M$55)	=H32/SUM($D$55:$M$55)	=I32/SUM($D$55:$M$55)	=J32/SUM($D$55:$M$55)	=K32/SUM($D$55:$M$55)	=L32/SUM($D$55:$M$55)	=M32/SUM($D$55:$M$55)
5	=D33/SUM($D$55:$M$55)	=E33/SUM($D$55:$M$55)	=F33/SUM($D$55:$M$55)	=G33/SUM($D$55:$M$55)	=H33/SUM($D$55:$M$55)	=I33/SUM($D$55:$M$55)	=J33/SUM($D$55:$M$55)	=K33/SUM($D$55:$M$55)	=L33/SUM($D$55:$M$55)	=M33/SUM($D$55:$M$55)
6	=D34/SUM($D$55:$M$55)	=E34/SUM($D$55:$M$55)	=F34/SUM($D$55:$M$55)	=G34/SUM($D$55:$M$55)	=H34/SUM($D$55:$M$55)	=I34/SUM($D$55:$M$55)	=J34/SUM($D$55:$M$55)	=K34/SUM($D$55:$M$55)	=L34/SUM($D$55:$M$55)	=M34/SUM($D$55:$M$55)
7	=D35/SUM($D$55:$M$55)	=E35/SUM($D$55:$M$55)	=F35/SUM($D$55:$M$55)	=G35/SUM($D$55:$M$55)	=H35/SUM($D$55:$M$55)	=I35/SUM($D$55:$M$55)	=J35/SUM($D$55:$M$55)	=K35/SUM($D$55:$M$55)	=L35/SUM($D$55:$M$55)	=M35/SUM($D$55:$M$55)
8	=D36/SUM($D$55:$M$55)	=E36/SUM($D$55:$M$55)	=F36/SUM($D$55:$M$55)	=G36/SUM($D$55:$M$55)	=H36/SUM($D$55:$M$55)	=I36/SUM($D$55:$M$55)	=J36/SUM($D$55:$M$55)	=K36/SUM($D$55:$M$55)	=L36/SUM($D$55:$M$55)	=M36/SUM($D$55:$M$55)
9	=D37/SUM($D$55:$M$55)	=E37/SUM($D$55:$M$55)	=F37/SUM($D$55:$M$55)	=G37/SUM($D$55:$M$55)	=H37/SUM($D$55:$M$55)	=I37/SUM($D$55:$M$55)	=J37/SUM($D$55:$M$55)	=K37/SUM($D$55:$M$55)	=L37/SUM($D$55:$M$55)	=M37/SUM($D$55:$M$55)
10	=D38/SUM($D$55:$M$55)	=E38/SUM($D$55:$M$55)	=F38/SUM($D$55:$M$55)	=G38/SUM($D$55:$M$55)	=H38/SUM($D$55:$M$55)	=I38/SUM($D$55:$M$55)	=J38/SUM($D$55:$M$55)	=K38/SUM($D$55:$M$55)	=L38/SUM($D$55:$M$55)	=M38/SUM($D$55:$M$55)
11	=D39/SUM($D$55:$M$55)	=E39/SUM($D$55:$M$55)	=F39/SUM($D$55:$M$55)	=G39/SUM($D$55:$M$55)	=H39/SUM($D$55:$M$55)	=I39/SUM($D$55:$M$55)	=J39/SUM($D$55:$M$55)	=K39/SUM($D$55:$M$55)	=L39/SUM($D$55:$M$55)	=M39/SUM($D$55:$M$55)
12	=D40/SUM($D$55:$M$55)	=E40/SUM($D$55:$M$55)	=F40/SUM($D$55:$M$55)	=G40/SUM($D$55:$M$55)	=H40/SUM($D$55:$M$55)	=I40/SUM($D$55:$M$55)	=J40/SUM($D$55:$M$55)	=K40/SUM($D$55:$M$55)	=L40/SUM($D$55:$M$55)	=M40/SUM($D$55:$M$55)
13	=D41/SUM($D$55:$M$55)	=E41/SUM($D$55:$M$55)	=F41/SUM($D$55:$M$55)	=G41/SUM($D$55:$M$55)	=H41/SUM($D$55:$M$55)	=I41/SUM($D$55:$M$55)	=J41/SUM($D$55:$M$55)	=K41/SUM($D$55:$M$55)	=L41/SUM($D$55:$M$55)	=M41/SUM($D$55:$M$55)
14	=D42/SUM($D$55:$M$55)	=E42/SUM($D$55:$M$55)	=F42/SUM($D$55:$M$55)	=G42/SUM($D$55:$M$55)	=H42/SUM($D$55:$M$55)	=I42/SUM($D$55:$M$55)	=J42/SUM($D$55:$M$55)	=K42/SUM($D$55:$M$55)	=L42/SUM($D$55:$M$55)	=M42/SUM($D$55:$M$55)
15	=D43/SUM($D$55:$M$55)	=E43/SUM($D$55:$M$55)	=F43/SUM($D$55:$M$55)	=G43/SUM($D$55:$M$55)	=H43/SUM($D$55:$M$55)	=I43/SUM($D$55:$M$55)	=J43/SUM($D$55:$M$55)	=K43/SUM($D$55:$M$55)	=L43/SUM($D$55:$M$55)	=M43/SUM($D$55:$M$55)
16	=D44/SUM($D$55:$M$55)	=E44/SUM($D$55:$M$55)	=F44/SUM($D$55:$M$55)	=G44/SUM($D$55:$M$55)	=H44/SUM($D$55:$M$55)	=I44/SUM($D$55:$M$55)	=J44/SUM($D$55:$M$55)	=K44/SUM($D$55:$M$55)	=L44/SUM($D$55:$M$55)	=M44/SUM($D$55:$M$55)
17	=D45/SUM($D$55:$M$55)	=E45/SUM($D$55:$M$55)	=F45/SUM($D$55:$M$55)	=G45/SUM($D$55:$M$55)	=H45/SUM($D$55:$M$55)	=I45/SUM($D$55:$M$55)	=J45/SUM($D$55:$M$55)	=K45/SUM($D$55:$M$55)	=L45/SUM($D$55:$M$55)	=M45/SUM($D$55:$M$55)
18	=D46/SUM($D$55:$M$55)	=E46/SUM($D$55:$M$55)	=F46/SUM($D$55:$M$55)	=G46/SUM($D$55:$M$55)	=H46/SUM($D$55:$M$55)	=I46/SUM($D$55:$M$55)	=J46/SUM($D$55:$M$55)	=K46/SUM($D$55:$M$55)	=L46/SUM($D$55:$M$55)	=M46/SUM($D$55:$M$55)
19	=D47/SUM($D$55:$M$55)	=E47/SUM($D$55:$M$55)	=F47/SUM($D$55:$M$55)	=G47/SUM($D$55:$M$55)	=H47/SUM($D$55:$M$55)	=I47/SUM($D$55:$M$55)	=J47/SUM($D$55:$M$55)	=K47/SUM($D$55:$M$55)	=L47/SUM($D$55:$M$55)	=M47/SUM($D$55:$M$55)
20	=D48/SUM($D$55:$M$55)	=E48/SUM($D$55:$M$55)	=F48/SUM($D$55:$M$55)	=G48/SUM($D$55:$M$55)	=H48/SUM($D$55:$M$55)	=I48/SUM($D$55:$M$55)	=J48/SUM($D$55:$M$55)	=K48/SUM($D$55:$M$55)	=L48/SUM($D$55:$M$55)	=M48/SUM($D$55:$M$55)
21	=D49/SUM($D$55:$M$55)	=E49/SUM($D$55:$M$55)	=F49/SUM($D$55:$M$55)	=G49/SUM($D$55:$M$55)	=H49/SUM($D$55:$M$55)	=I49/SUM($D$55:$M$55)	=J49/SUM($D$55:$M$55)	=K49/SUM($D$55:$M$55)	=L49/SUM($D$55:$M$55)	=M49/SUM($D$55:$M$55)
22	=D50/SUM($D$55:$M$55)	=E50/SUM($D$55:$M$55)	=F50/SUM($D$55:$M$55)	=G50/SUM($D$55:$M$55)	=H50/SUM($D$55:$M$55)	=I50/SUM($D$55:$M$55)	=J50/SUM($D$55:$M$55)	=K50/SUM($D$55:$M$55)	=L50/SUM($D$55:$M$55)	=M50/SUM($D$55:$M$55)
23	=D51/SUM($D$55:$M$55)	=E51/SUM($D$55:$M$55)	=F51/SUM($D$55:$M$55)	=G51/SUM($D$55:$M$55)	=H51/SUM($D$55:$M$55)	=I51/SUM($D$55:$M$55)	=J51/SUM($D$55:$M$55)	=K51/SUM($D$55:$M$55)	=L51/SUM($D$55:$M$55)	=M51/SUM($D$55:$M$55)
24	=D52/SUM($D$55:$M$55)	=E52/SUM($D$55:$M$55)	=F52/SUM($D$55:$M$55)	=G52/SUM($D$55:$M$55)	=H52/SUM($D$55:$M$55)	=I52/SUM($D$55:$M$55)	=J52/SUM($D$55:$M$55)	=K52/SUM($D$55:$M$55)	=L52/SUM($D$55:$M$55)	=M52/SUM($D$55:$M$55)

RTRAF WGT

	T	U	V	W	X	Y	Z	AA	AB	AC
25	=D53/SUM($D$55:$M$55)	=E53/SUM($D$55:$M$55)	=F53/SUM($D$55:$M$55)	=G53/SUM($D$55:$M$55)	=H53/SUM($D$55:$M$55)	=I53/SUM($D$55:$M$55)	=J53/SUM($D$55:$M$55)	=K53/SUM($D$55:$M$55)	=L53/SUM($D$55:$M$55)	=M53/SUM($D$55:$M$55)
26	=D54/SUM($D$55:$M$55)	=E54/SUM($D$55:$M$55)	=F54/SUM($D$55:$M$55)	=G54/SUM($D$55:$M$55)	=H54/SUM($D$55:$M$55)	=I54/SUM($D$55:$M$55)	=J54/SUM($D$55:$M$55)	=K54/SUM($D$55:$M$55)	=L54/SUM($D$55:$M$55)	=M54/SUM($D$55:$M$55)
27	=SUM(T4:T26)	=SUM(U4:U26)	=SUM(V4:V26)	=SUM(W4:W26)	=SUM(X4:X26)	=SUM(Y4:Y26)	=SUM(Z4:Z26)	=SUM(AA4:AA26)	=SUM(AB4:AB26)	=SUM(AC4:AC26)

TRAF WGT

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	**Proportion of Rural Traffic by Vehicle Class**												
2	**WGT**	**Autos**	**Pick-ups**	**Buses**	**SU**			**CMB Single Trailer**			**CMB Multi-trailer**		
3					**2A 6T**	**3A**	**4A**	**CS 4A**	**CS 5A**	**CS 6A**	**CM 5A**	**CM 6A**	**CM 7A**
4	0-8	=REG!I3*VMT!$R$5	=REG!J3*VMT!$R$6	=REG!K3*VMT!$R$7	=COMWGT!B34*VMT!F$22	=COMWGT!C34*VMT!G$22	=COMWGT!D34*VMT!H$22	=COMWGT!F34*VMT!I$22	=COMWGT!G34*VMT!J$22	=COMWGT!H34*VMT!K$22	=COMWGT!J34*VMT!L$22	=COMWGT!K34*VMT!M$22	=COMWGT!L34*VMT!N$22
5	8-10	=REG!I4*VMT!$R$5	=REG!J4*VMT!$R$6	=REG!K4*VMT!$R$7	=COMWGT!B35*VMT!F$22	=COMWGT!C35*VMT!G$22	=COMWGT!D35*VMT!H$22	=COMWGT!F35*VMT!I$22	=COMWGT!G35*VMT!J$22	=COMWGT!H35*VMT!K$22	=COMWGT!J35*VMT!L$22	=COMWGT!K35*VMT!M$22	=COMWGT!L35*VMT!N$22
6	10-12	=REG!I5*VMT!$R$5	=REG!J5*VMT!$R$6	=REG!K5*VMT!$R$7	=COMWGT!B36*VMT!F$22	=COMWGT!C36*VMT!G$22	=COMWGT!D36*VMT!H$22	=COMWGT!F36*VMT!I$22	=COMWGT!G36*VMT!J$22	=COMWGT!H36*VMT!K$22	=COMWGT!J36*VMT!L$22	=COMWGT!K36*VMT!M$22	=COMWGT!L36*VMT!N$22
7	12-14	=REG!I6*VMT!$R$5	=REG!J6*VMT!$R$6	=REG!K6*VMT!$R$7	=COMWGT!B37*VMT!F$22	=COMWGT!C37*VMT!G$22	=COMWGT!D37*VMT!H$22	=COMWGT!F37*VMT!I$22	=COMWGT!G37*VMT!J$22	=COMWGT!H37*VMT!K$22	=COMWGT!J37*VMT!L$22	=COMWGT!K37*VMT!M$22	=COMWGT!L37*VMT!N$22
8	14-16	=REG!I7*VMT!$R$5	=REG!J7*VMT!$R$6	=REG!K7*VMT!$R$7	=COMWGT!B38*VMT!F$22	=COMWGT!C38*VMT!G$22	=COMWGT!D38*VMT!H$22	=COMWGT!F38*VMT!I$22	=COMWGT!G38*VMT!J$22	=COMWGT!H38*VMT!K$22	=COMWGT!J38*VMT!L$22	=COMWGT!K38*VMT!M$22	=COMWGT!L38*VMT!N$22
9	16-18	=REG!I8*VMT!$R$5	=REG!J8*VMT!$R$6	=REG!K8*VMT!$R$7	=COMWGT!B39*VMT!F$22	=COMWGT!C39*VMT!G$22	=COMWGT!D39*VMT!H$22	=COMWGT!F39*VMT!I$22	=COMWGT!G39*VMT!J$22	=COMWGT!H39*VMT!K$22	=COMWGT!J39*VMT!L$22	=COMWGT!K39*VMT!M$22	=COMWGT!L39*VMT!N$22
10	18-20	=REG!I9*VMT!$R$5	=REG!J9*VMT!$R$6	=REG!K9*VMT!$R$7	=COMWGT!B40*VMT!F$22	=COMWGT!C40*VMT!G$22	=COMWGT!D40*VMT!H$22	=COMWGT!F40*VMT!I$22	=COMWGT!G40*VMT!J$22	=COMWGT!H40*VMT!K$22	=COMWGT!J40*VMT!L$22	=COMWGT!K40*VMT!M$22	=COMWGT!L40*VMT!N$22
11	20-22	=REG!I10*VMT!$R$5	=REG!J10*VMT!$R$6	=REG!K10*VMT!$R$7	=COMWGT!B41*VMT!F$22	=COMWGT!C41*VMT!G$22	=COMWGT!D41*VMT!H$22	=COMWGT!F41*VMT!I$22	=COMWGT!G41*VMT!J$22	=COMWGT!H41*VMT!K$22	=COMWGT!J41*VMT!L$22	=COMWGT!K41*VMT!M$22	=COMWGT!L41*VMT!N$22
12	22-24	=REG!I11*VMT!$R$5	=REG!J11*VMT!$R$6	=REG!K11*VMT!$R$7	=COMWGT!B42*VMT!F$22	=COMWGT!C42*VMT!G$22	=COMWGT!D42*VMT!H$22	=COMWGT!F42*VMT!I$22	=COMWGT!G42*VMT!J$22	=COMWGT!H42*VMT!K$22	=COMWGT!J42*VMT!L$22	=COMWGT!K42*VMT!M$22	=COMWGT!L42*VMT!N$22
13	24-26	=REG!I12*VMT!$R$5	=REG!J12*VMT!$R$6	=REG!K12*VMT!$R$7	=COMWGT!B43*VMT!F$22	=COMWGT!C43*VMT!G$22	=COMWGT!D43*VMT!H$22	=COMWGT!F43*VMT!I$22	=COMWGT!G43*VMT!J$22	=COMWGT!H43*VMT!K$22	=COMWGT!J43*VMT!L$22	=COMWGT!K43*VMT!M$22	=COMWGT!L43*VMT!N$22
14	26-28	=REG!I13*VMT!$R$5	=REG!J13*VMT!$R$6	=REG!K13*VMT!$R$7	=COMWGT!B44*VMT!F$22	=COMWGT!C44*VMT!G$22	=COMWGT!D44*VMT!H$22	=COMWGT!F44*VMT!I$22	=COMWGT!G44*VMT!J$22	=COMWGT!H44*VMT!K$22	=COMWGT!J44*VMT!L$22	=COMWGT!K44*VMT!M$22	=COMWGT!L44*VMT!N$22
15	28-30	=REG!I14*VMT!$R$5	=REG!J14*VMT!$R$6	=REG!K14*VMT!$R$7	=COMWGT!B45*VMT!F$22	=COMWGT!C45*VMT!G$22	=COMWGT!D45*VMT!H$22	=COMWGT!F45*VMT!I$22	=COMWGT!G45*VMT!J$22	=COMWGT!H45*VMT!K$22	=COMWGT!J45*VMT!L$22	=COMWGT!K45*VMT!M$22	=COMWGT!L45*VMT!N$22
16	30-32	=REG!I15*VMT!$R$5	=REG!J15*VMT!$R$6	=REG!K15*VMT!$R$7	=COMWGT!B46*VMT!F$22	=COMWGT!C46*VMT!G$22	=COMWGT!D46*VMT!H$22	=COMWGT!F46*VMT!I$22	=COMWGT!G46*VMT!J$22	=COMWGT!H46*VMT!K$22	=COMWGT!J46*VMT!L$22	=COMWGT!K46*VMT!M$22	=COMWGT!L46*VMT!N$22
17	32-36	=REG!I16*VMT!$R$5	=REG!J16*VMT!$R$6	=REG!K16*VMT!$R$7	=COMWGT!B47*VMT!F$22	=COMWGT!C47*VMT!G$22	=COMWGT!D47*VMT!H$22	=COMWGT!F47*VMT!I$22	=COMWGT!G47*VMT!J$22	=COMWGT!H47*VMT!K$22	=COMWGT!J47*VMT!L$22	=COMWGT!K47*VMT!M$22	=COMWGT!L47*VMT!N$22
18	36-40	=REG!I17*VMT!$R$5	=REG!J17*VMT!$R$6	=REG!K17*VMT!$R$7	=COMWGT!B48*VMT!F$22	=COMWGT!C48*VMT!G$22	=COMWGT!D48*VMT!H$22	=COMWGT!F48*VMT!I$22	=COMWGT!G48*VMT!J$22	=COMWGT!H48*VMT!K$22	=COMWGT!J48*VMT!L$22	=COMWGT!K48*VMT!M$22	=COMWGT!L48*VMT!N$22
19	40-45	=REG!I18*VMT!$R$5	=REG!J18*VMT!$R$6	=REG!K18*VMT!$R$7	=COMWGT!B49*VMT!F$22	=COMWGT!C49*VMT!G$22	=COMWGT!D49*VMT!H$22	=COMWGT!F49*VMT!I$22	=COMWGT!G49*VMT!J$22	=COMWGT!H49*VMT!K$22	=COMWGT!J49*VMT!L$22	=COMWGT!K49*VMT!M$22	=COMWGT!L49*VMT!N$22
20	45-50	=REG!I19*VMT!$R$5	=REG!J19*VMT!$R$6	=REG!K19*VMT!$R$7	=COMWGT!B50*VMT!F$22	=COMWGT!C50*VMT!G$22	=COMWGT!D50*VMT!H$22	=COMWGT!F50*VMT!I$22	=COMWGT!G50*VMT!J$22	=COMWGT!H50*VMT!K$22	=COMWGT!J50*VMT!L$22	=COMWGT!K50*VMT!M$22	=COMWGT!L50*VMT!N$22
21	50-55	=REG!I20*VMT!$R$5	=REG!J20*VMT!$R$6	=REG!K20*VMT!$R$7	=COMWGT!B51*VMT!F$22	=COMWGT!C51*VMT!G$22	=COMWGT!D51*VMT!H$22	=COMWGT!F51*VMT!I$22	=COMWGT!G51*VMT!J$22	=COMWGT!H51*VMT!K$22	=COMWGT!J51*VMT!L$22	=COMWGT!K51*VMT!M$22	=COMWGT!L51*VMT!N$22
22	55-60	=REG!I21*VMT!$R$5	=REG!J21*VMT!$R$6	=REG!K21*VMT!$R$7	=COMWGT!B52*VMT!F$22	=COMWGT!C52*VMT!G$22	=COMWGT!D52*VMT!H$22	=COMWGT!F52*VMT!I$22	=COMWGT!G52*VMT!J$22	=COMWGT!H52*VMT!K$22	=COMWGT!J52*VMT!L$22	=COMWGT!K52*VMT!M$22	=COMWGT!L52*VMT!N$22
23	60-65	=REG!I22*VMT!$R$5	=REG!J22*VMT!$R$6	=REG!K22*VMT!$R$7	=COMWGT!B53*VMT!F$22	=COMWGT!C53*VMT!G$22	=COMWGT!D53*VMT!H$22	=COMWGT!F53*VMT!I$22	=COMWGT!G53*VMT!J$22	=COMWGT!H53*VMT!K$22	=COMWGT!J53*VMT!L$22	=COMWGT!K53*VMT!M$22	=COMWGT!L53*VMT!N$22
24	65-70	=REG!I23*VMT!$R$5	=REG!J23*VMT!$R$6	=REG!K23*VMT!$R$7	=COMWGT!B54*VMT!F$22	=COMWGT!C54*VMT!G$22	=COMWGT!D54*VMT!H$22	=COMWGT!F54*VMT!I$22	=COMWGT!G54*VMT!J$22	=COMWGT!H54*VMT!K$22	=COMWGT!J54*VMT!L$22	=COMWGT!K54*VMT!M$22	=COMWGT!L54*VMT!N$22
25	70-75	=REG!I24*VMT!$R$5	=REG!J24*VMT!$R$6	=REG!K24*VMT!$R$7	=COMWGT!B55*VMT!F$22	=COMWGT!C55*VMT!G$22	=COMWGT!D55*VMT!H$22	=COMWGT!F55*VMT!I$22	=COMWGT!G55*VMT!J$22	=COMWGT!H55*VMT!K$22	=COMWGT!J55*VMT!L$22	=COMWGT!K55*VMT!M$22	=COMWGT!L55*VMT!N$22
26	75-80	=REG!I25*VMT!$R$5	=REG!J25*VMT!$R$6	=REG!K25*VMT!$R$7	=COMWGT!B56*VMT!F$22	=COMWGT!C56*VMT!G$22	=COMWGT!D56*VMT!H$22	=COMWGT!F56*VMT!I$22	=COMWGT!G56*VMT!J$22	=COMWGT!H56*VMT!K$22	=COMWGT!J56*VMT!L$22	=COMWGT!K56*VMT!M$22	=COMWGT!L56*VMT!N$22
27	**Total**	=SUM(B4:B26)	=SUM(C4:C26)	=SUM(D4:D26)	=SUM(E4:E26)	=SUM(F4:F26)	=SUM(G4:G26)	=SUM(H4:H26)	=SUM(I4:I26)	=SUM(J4:J26)	=SUM(K4:K26)	=SUM(L4:L26)	=SUM(M4:M26)
28													

TRAF WGT

	A	B	C	D	E	F	G	H	I	J	K	L	M
29	**Adjusted Proportion of Rural Traffic by Vehicle Class**												
30		**Autos**	**Pick-ups**	**Buses**	**SU**			**CMB Single Trailer**			**CMB Multi-trailer**		
31					**2A 6T**	**3A**	**4A**	**CS 4A**	**CS 5A**	**CS 6A**	**CM 5A**	**CM 6A**	**CM 7A**
32	0-8	=B4*(1/SUM($B$27:$M$27))	=C4*(1/SUM($B$27:$M$27))	=D4*(1/SUM($B$27:$M$27))	=E4*(1/SUM($B$27:$M$27))	=F4*(1/SUM($B$27:$M$27))	=G4*(1/SUM($B$27:$M$27))	=H4*(1/SUM($B$27:$M$27))	=I4*(1/SUM($B$27:$M$27))	=J4*(1/SUM($B$27:$M$27))	=K4*(1/SUM($B$27:$M$27))	=L4*(1/SUM($B$27:$M$27))	=M4*(1/SUM($B$27:$M$27))
33	8-10	=B5*(1/SUM($B$27:$M$27))	=C5*(1/SUM($B$27:$M$27))	=D5*(1/SUM($B$27:$M$27))	=E5*(1/SUM($B$27:$M$27))	=F5*(1/SUM($B$27:$M$27))	=G5*(1/SUM($B$27:$M$27))	=H5*(1/SUM($B$27:$M$27))	=I5*(1/SUM($B$27:$M$27))	=J5*(1/SUM($B$27:$M$27))	=K5*(1/SUM($B$27:$M$27))	=L5*(1/SUM($B$27:$M$27))	=M5*(1/SUM($B$27:$M$27))
34	10-12	=B6*(1/SUM($B$27:$M$27))	=C6*(1/SUM($B$27:$M$27))	=D6*(1/SUM($B$27:$M$27))	=E6*(1/SUM($B$27:$M$27))	=F6*(1/SUM($B$27:$M$27))	=G6*(1/SUM($B$27:$M$27))	=H6*(1/SUM($B$27:$M$27))	=I6*(1/SUM($B$27:$M$27))	=J6*(1/SUM($B$27:$M$27))	=K6*(1/SUM($B$27:$M$27))	=L6*(1/SUM($B$27:$M$27))	=M6*(1/SUM($B$27:$M$27))
35	12-14	=B7*(1/SUM($B$27:$M$27))	=C7*(1/SUM($B$27:$M$27))	=D7*(1/SUM($B$27:$M$27))	=E7*(1/SUM($B$27:$M$27))	=F7*(1/SUM($B$27:$M$27))	=G7*(1/SUM($B$27:$M$27))	=H7*(1/SUM($B$27:$M$27))	=I7*(1/SUM($B$27:$M$27))	=J7*(1/SUM($B$27:$M$27))	=K7*(1/SUM($B$27:$M$27))	=L7*(1/SUM($B$27:$M$27))	=M7*(1/SUM($B$27:$M$27))
36	14-16	=B8*(1/SUM($B$27:$M$27))	=C8*(1/SUM($B$27:$M$27))	=D8*(1/SUM($B$27:$M$27))	=E8*(1/SUM($B$27:$M$27))	=F8*(1/SUM($B$27:$M$27))	=G8*(1/SUM($B$27:$M$27))	=H8*(1/SUM($B$27:$M$27))	=I8*(1/SUM($B$27:$M$27))	=J8*(1/SUM($B$27:$M$27))	=K8*(1/SUM($B$27:$M$27))	=L8*(1/SUM($B$27:$M$27))	=M8*(1/SUM($B$27:$M$27))
37	16-18	=B9*(1/SUM($B$27:$M$27))	=C9*(1/SUM($B$27:$M$27))	=D9*(1/SUM($B$27:$M$27))	=E9*(1/SUM($B$27:$M$27))	=F9*(1/SUM($B$27:$M$27))	=G9*(1/SUM($B$27:$M$27))	=H9*(1/SUM($B$27:$M$27))	=I9*(1/SUM($B$27:$M$27))	=J9*(1/SUM($B$27:$M$27))	=K9*(1/SUM($B$27:$M$27))	=L9*(1/SUM($B$27:$M$27))	=M9*(1/SUM($B$27:$M$27))
38	18-20	=B10*(1/SUM($B$27:$M$27))	=C10*(1/SUM($B$27:$M$27))	=D10*(1/SUM($B$27:$M$27))	=E10*(1/SUM($B$27:$M$27))	=F10*(1/SUM($B$27:$M$27))	=G10*(1/SUM($B$27:$M$27))	=H10*(1/SUM($B$27:$M$27))	=I10*(1/SUM($B$27:$M$27))	=J10*(1/SUM($B$27:$M$27))	=K10*(1/SUM($B$27:$M$27))	=L10*(1/SUM($B$27:$M$27))	=M10*(1/SUM($B$27:$M$27))
39	20-22	=B11*(1/SUM($B$27:$M$27))	=C11*(1/SUM($B$27:$M$27))	=D11*(1/SUM($B$27:$M$27))	=E11*(1/SUM($B$27:$M$27))	=F11*(1/SUM($B$27:$M$27))	=G11*(1/SUM($B$27:$M$27))	=H11*(1/SUM($B$27:$M$27))	=I11*(1/SUM($B$27:$M$27))	=J11*(1/SUM($B$27:$M$27))	=K11*(1/SUM($B$27:$M$27))	=L11*(1/SUM($B$27:$M$27))	=M11*(1/SUM($B$27:$M$27))
40	22-24	=B12*(1/SUM($B$27:$M$27))	=C12*(1/SUM($B$27:$M$27))	=D12*(1/SUM($B$27:$M$27))	=E12*(1/SUM($B$27:$M$27))	=F12*(1/SUM($B$27:$M$27))	=G12*(1/SUM($B$27:$M$27))	=H12*(1/SUM($B$27:$M$27))	=I12*(1/SUM($B$27:$M$27))	=J12*(1/SUM($B$27:$M$27))	=K12*(1/SUM($B$27:$M$27))	=L12*(1/SUM($B$27:$M$27))	=M12*(1/SUM($B$27:$M$27))
41	24-26	=B13*(1/SUM($B$27:$M$27))	=C13*(1/SUM($B$27:$M$27))	=D13*(1/SUM($B$27:$M$27))	=E13*(1/SUM($B$27:$M$27))	=F13*(1/SUM($B$27:$M$27))	=G13*(1/SUM($B$27:$M$27))	=H13*(1/SUM($B$27:$M$27))	=I13*(1/SUM($B$27:$M$27))	=J13*(1/SUM($B$27:$M$27))	=K13*(1/SUM($B$27:$M$27))	=L13*(1/SUM($B$27:$M$27))	=M13*(1/SUM($B$27:$M$27))
42	26-28	=B14*(1/SUM($B$27:$M$27))	=C14*(1/SUM($B$27:$M$27))	=D14*(1/SUM($B$27:$M$27))	=E14*(1/SUM($B$27:$M$27))	=F14*(1/SUM($B$27:$M$27))	=G14*(1/SUM($B$27:$M$27))	=H14*(1/SUM($B$27:$M$27))	=I14*(1/SUM($B$27:$M$27))	=J14*(1/SUM($B$27:$M$27))	=K14*(1/SUM($B$27:$M$27))	=L14*(1/SUM($B$27:$M$27))	=M14*(1/SUM($B$27:$M$27))
43	28-30	=B15*(1/SUM($B$27:$M$27))	=C15*(1/SUM($B$27:$M$27))	=D15*(1/SUM($B$27:$M$27))	=E15*(1/SUM($B$27:$M$27))	=F15*(1/SUM($B$27:$M$27))	=G15*(1/SUM($B$27:$M$27))	=H15*(1/SUM($B$27:$M$27))	=I15*(1/SUM($B$27:$M$27))	=J15*(1/SUM($B$27:$M$27))	=K15*(1/SUM($B$27:$M$27))	=L15*(1/SUM($B$27:$M$27))	=M15*(1/SUM($B$27:$M$27))
44	30-32	=B16*(1/SUM($B$27:$M$27))	=C16*(1/SUM($B$27:$M$27))	=D16*(1/SUM($B$27:$M$27))	=E16*(1/SUM($B$27:$M$27))	=F16*(1/SUM($B$27:$M$27))	=G16*(1/SUM($B$27:$M$27))	=H16*(1/SUM($B$27:$M$27))	=I16*(1/SUM($B$27:$M$27))	=J16*(1/SUM($B$27:$M$27))	=K16*(1/SUM($B$27:$M$27))	=L16*(1/SUM($B$27:$M$27))	=M16*(1/SUM($B$27:$M$27))
45	32-36	=B17*(1/SUM($B$27:$M$27))	=C17*(1/SUM($B$27:$M$27))	=D17*(1/SUM($B$27:$M$27))	=E17*(1/SUM($B$27:$M$27))	=F17*(1/SUM($B$27:$M$27))	=G17*(1/SUM($B$27:$M$27))	=H17*(1/SUM($B$27:$M$27))	=I17*(1/SUM($B$27:$M$27))	=J17*(1/SUM($B$27:$M$27))	=K17*(1/SUM($B$27:$M$27))	=L17*(1/SUM($B$27:$M$27))	=M17*(1/SUM($B$27:$M$27))
46	36-40	=B18*(1/SUM($B$27:$M$27))	=C18*(1/SUM($B$27:$M$27))	=D18*(1/SUM($B$27:$M$27))	=E18*(1/SUM($B$27:$M$27))	=F18*(1/SUM($B$27:$M$27))	=G18*(1/SUM($B$27:$M$27))	=H18*(1/SUM($B$27:$M$27))	=I18*(1/SUM($B$27:$M$27))	=J18*(1/SUM($B$27:$M$27))	=K18*(1/SUM($B$27:$M$27))	=L18*(1/SUM($B$27:$M$27))	=M18*(1/SUM($B$27:$M$27))
47	40-45	=B19*(1/SUM($B$27:$M$27))	=C19*(1/SUM($B$27:$M$27))	=D19*(1/SUM($B$27:$M$27))	=E19*(1/SUM($B$27:$M$27))	=F19*(1/SUM($B$27:$M$27))	=G19*(1/SUM($B$27:$M$27))	=H19*(1/SUM($B$27:$M$27))	=I19*(1/SUM($B$27:$M$27))	=J19*(1/SUM($B$27:$M$27))	=K19*(1/SUM($B$27:$M$27))	=L19*(1/SUM($B$27:$M$27))	=M19*(1/SUM($B$27:$M$27))
48	45-50	=B20*(1/SUM($B$27:$M$27))	=C20*(1/SUM($B$27:$M$27))	=D20*(1/SUM($B$27:$M$27))	=E20*(1/SUM($B$27:$M$27))	=F20*(1/SUM($B$27:$M$27))	=G20*(1/SUM($B$27:$M$27))	=H20*(1/SUM($B$27:$M$27))	=I20*(1/SUM($B$27:$M$27))	=J20*(1/SUM($B$27:$M$27))	=K20*(1/SUM($B$27:$M$27))	=L20*(1/SUM($B$27:$M$27))	=M20*(1/SUM($B$27:$M$27))
49	50-55	=B21*(1/SUM($B$27:$M$27))	=C21*(1/SUM($B$27:$M$27))	=D21*(1/SUM($B$27:$M$27))	=E21*(1/SUM($B$27:$M$27))	=F21*(1/SUM($B$27:$M$27))	=G21*(1/SUM($B$27:$M$27))	=H21*(1/SUM($B$27:$M$27))	=I21*(1/SUM($B$27:$M$27))	=J21*(1/SUM($B$27:$M$27))	=K21*(1/SUM($B$27:$M$27))	=L21*(1/SUM($B$27:$M$27))	=M21*(1/SUM($B$27:$M$27))
50	55-60	=B22*(1/SUM($B$27:$M$27))	=C22*(1/SUM($B$27:$M$27))	=D22*(1/SUM($B$27:$M$27))	=E22*(1/SUM($B$27:$M$27))	=F22*(1/SUM($B$27:$M$27))	=G22*(1/SUM($B$27:$M$27))	=H22*(1/SUM($B$27:$M$27))	=I22*(1/SUM($B$27:$M$27))	=J22*(1/SUM($B$27:$M$27))	=K22*(1/SUM($B$27:$M$27))	=L22*(1/SUM($B$27:$M$27))	=M22*(1/SUM($B$27:$M$27))
51	60-65	=B23*(1/SUM($B$27:$M$27))	=C23*(1/SUM($B$27:$M$27))	=D23*(1/SUM($B$27:$M$27))	=E23*(1/SUM($B$27:$M$27))	=F23*(1/SUM($B$27:$M$27))	=G23*(1/SUM($B$27:$M$27))	=H23*(1/SUM($B$27:$M$27))	=I23*(1/SUM($B$27:$M$27))	=J23*(1/SUM($B$27:$M$27))	=K23*(1/SUM($B$27:$M$27))	=L23*(1/SUM($B$27:$M$27))	=M23*(1/SUM($B$27:$M$27))
52	65-70	=B24*(1/SUM($B$27:$M$27))	=C24*(1/SUM($B$27:$M$27))	=D24*(1/SUM($B$27:$M$27))	=E24*(1/SUM($B$27:$M$27))	=F24*(1/SUM($B$27:$M$27))	=G24*(1/SUM($B$27:$M$27))	=H24*(1/SUM($B$27:$M$27))	=I24*(1/SUM($B$27:$M$27))	=J24*(1/SUM($B$27:$M$27))	=K24*(1/SUM($B$27:$M$27))	=L24*(1/SUM($B$27:$M$27))	=M24*(1/SUM($B$27:$M$27))
53	70-75	=B25*(1/SUM($B$27:$M$27))	=C25*(1/SUM($B$27:$M$27))	=D25*(1/SUM($B$27:$M$27))	=E25*(1/SUM($B$27:$M$27))	=F25*(1/SUM($B$27:$M$27))	=G25*(1/SUM($B$27:$M$27))	=H25*(1/SUM($B$27:$M$27))	=I25*(1/SUM($B$27:$M$27))	=J25*(1/SUM($B$27:$M$27))	=K25*(1/SUM($B$27:$M$27))	=L25*(1/SUM($B$27:$M$27))	=M25*(1/SUM($B$27:$M$27))
54	75-80	=B26*(1/SUM($B$27:$M$27))	=C26*(1/SUM($B$27:$M$27))	=D26*(1/SUM($B$27:$M$27))	=E26*(1/SUM($B$27:$M$27))	=F26*(1/SUM($B$27:$M$27))	=G26*(1/SUM($B$27:$M$27))	=H26*(1/SUM($B$27:$M$27))	=I26*(1/SUM($B$27:$M$27))	=J26*(1/SUM($B$27:$M$27))	=K26*(1/SUM($B$27:$M$27))	=L26*(1/SUM($B$27:$M$27))	=M26*(1/SUM($B$27:$M$27))
55	**Total**	=SUM(B32:B54)	=SUM(C32:C54)	=SUM(D32:D54)	=SUM(E32:E54)	=SUM(F32:F54)	=SUM(G32:G54)	=SUM(H32:H54)	=SUM(I32:I54)	=SUM(J32:J54)	=SUM(K32:K54)	=SUM(L32:L54)	=SUM(M32:M54)
56													
57													
58													

TRAF WGT

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
59	**Proportion of Rural Traffic Adjusted by Axle-Miles**														**Axle-Mile Travel ADJ**	
60		**2**	**2**	**3**	**SU**			**CMB Single Trailer**			**CMB Multi-trailer**					
61					**2**	**3**	**4**	**4**	**5**	**6**	**5**	**6**	**7**		**VEH**	**PROJ SHR**
62	0-8	=B$60*B4	=C$60*C4	=D$60*D4	=E$61*E4	=F$61*F4	=G$61*G4	=H$61*H4	=I$61*I4	=J$61*J4	=K$61*K4	=L$61*L4	=M$61*M4		Autos	=B113
63	8-10	=B$60*B5	=C$60*C5	=D$60*D5	=E$61*E5	=F$61*F5	=G$61*G5	=H$61*H5	=I$61*I5	=J$61*J5	=K$61*K5	=L$61*L5	=M$61*M5		PU	=C113
64	10-12	=B$60*B6	=C$60*C6	=D$60*D6	=E$61*E6	=F$61*F6	=G$61*G6	=H$61*H6	=I$61*I6	=J$61*J6	=K$61*K6	=L$61*L6	=M$61*M6		Buses	=D113
65	12-14	=B$60*B7	=C$60*C7	=D$60*D7	=E$61*E7	=F$61*F7	=G$61*G7	=H$61*H7	=I$61*I7	=J$61*J7	=K$61*K7	=L$61*L7	=M$61*M7		SU	=SUM(E113:G113)
66	14-16	=B$60*B8	=C$60*C8	=D$60*D8	=E$61*E8	=F$61*F8	=G$61*G8	=H$61*H8	=I$61*I8	=J$61*J8	=K$61*K8	=L$61*L8	=M$61*M8		CMB	=SUM(H113:M113)
67	16-18	=B$60*B9	=C$60*C9	=D$60*D9	=E$61*E9	=F$61*F9	=G$61*G9	=H$61*H9	=I$61*I9	=J$61*J9	=K$61*K9	=L$61*L9	=M$61*M9			
68	18-20	=B$60*B10	=C$60*C10	=D$60*D10	=E$61*E10	=F$61*F10	=G$61*G10	=H$61*H10	=I$61*I10	=J$61*J10	=K$61*K10	=L$61*L10	=M$61*M10			
69	20-22	=B$60*B11	=C$60*C11	=D$60*D11	=E$61*E11	=F$61*F11	=G$61*G11	=H$61*H11	=I$61*I11	=J$61*J11	=K$61*K11	=L$61*L11	=M$61*M11			
70	22-24	=B$60*B12	=C$60*C12	=D$60*D12	=E$61*E12	=F$61*F12	=G$61*G12	=H$61*H12	=I$61*I12	=J$61*J12	=K$61*K12	=L$61*L12	=M$61*M12		**WGT**	**PROJ SHR**
71	24-26	=B$60*B13	=C$60*C13	=D$60*D13	=E$61*E13	=F$61*F13	=G$61*G13	=H$61*H13	=I$61*I13	=J$61*J13	=K$61*K13	=L$61*L13	=M$61*M13		0-8	=SUM(B90:M90)
72	26-28	=B$60*B14	=C$60*C14	=D$60*D14	=E$61*E14	=F$61*F14	=G$61*G14	=H$61*H14	=I$61*I14	=J$61*J14	=K$61*K14	=L$61*L14	=M$61*M14		8-10	=SUM(B91:M91)
73	28-30	=B$60*B15	=C$60*C15	=D$60*D15	=E$61*E15	=F$61*F15	=G$61*G15	=H$61*H15	=I$61*I15	=J$61*J15	=K$61*K15	=L$61*L15	=M$61*M15		10-12	=SUM(B92:M92)
74	30-32	=B$60*B16	=C$60*C16	=D$60*D16	=E$61*E16	=F$61*F16	=G$61*G16	=H$61*H16	=I$61*I16	=J$61*J16	=K$61*K16	=L$61*L16	=M$61*M16		12-14	=SUM(B93:M93)
75	32-36	=B$60*B17	=C$60*C17	=D$60*D17	=E$61*E17	=F$61*F17	=G$61*G17	=H$61*H17	=I$61*I17	=J$61*J17	=K$61*K17	=L$61*L17	=M$61*M17		14-16	=SUM(B94:M94)
76	36-40	=B$60*B18	=C$60*C18	=D$60*D18	=E$61*E18	=F$61*F18	=G$61*G18	=H$61*H18	=I$61*I18	=J$61*J18	=K$61*K18	=L$61*L18	=M$61*M18		16-18	=SUM(B95:M95)
77	40-45	=B$60*B19	=C$60*C19	=D$60*D19	=E$61*E19	=F$61*F19	=G$61*G19	=H$61*H19	=I$61*I19	=J$61*J19	=K$61*K19	=L$61*L19	=M$61*M19		18-20	=SUM(B96:M96)
78	45-50	=B$60*B20	=C$60*C20	=D$60*D20	=E$61*E20	=F$61*F20	=G$61*G20	=H$61*H20	=I$61*I20	=J$61*J20	=K$61*K20	=L$61*L20	=M$61*M20		20-22	=SUM(B97:M97)
79	50-55	=B$60*B21	=C$60*C21	=D$60*D21	=E$61*E21	=F$61*F21	=G$61*G21	=H$61*H21	=I$61*I21	=J$61*J21	=K$61*K21	=L$61*L21	=M$61*M21		22-24	=SUM(B98:M98)
80	55-60	=B$60*B22	=C$60*C22	=D$60*D22	=E$61*E22	=F$61*F22	=G$61*G22	=H$61*H22	=I$61*I22	=J$61*J22	=K$61*K22	=L$61*L22	=M$61*M22		24-26	=SUM(B99:M99)
81	60-65	=B$60*B23	=C$60*C23	=D$60*D23	=E$61*E23	=F$61*F23	=G$61*G23	=H$61*H23	=I$61*I23	=J$61*J23	=K$61*K23	=L$61*L23	=M$61*M23		26-28	=SUM(B100:M100)
82	65-70	=B$60*B24	=C$60*C24	=D$60*D24	=E$61*E24	=F$61*F24	=G$61*G24	=H$61*H24	=I$61*I24	=J$61*J24	=K$61*K24	=L$61*L24	=M$61*M24		28-30	=SUM(B101:M101)
83	70-75	=B$60*B25	=C$60*C25	=D$60*D25	=E$61*E25	=F$61*F25	=G$61*G25	=H$61*H25	=I$61*I25	=J$61*J25	=K$61*K25	=L$61*L25	=M$61*M25		30-32	=SUM(B102:M102)
84	75-80	=B$60*B26	=C$60*C26	=D$60*D26	=E$61*E26	=F$61*F26	=G$61*G26	=H$61*H26	=I$61*I26	=J$61*J26	=K$61*K26	=L$61*L26	=M$61*M26		32-36	=SUM(B103:M103)
85	**Total**	=SUM(B62:B84)	=SUM(C62:C84)	=SUM(D62:D84)	=SUM(E62:E84)	=SUM(F62:F84)	=SUM(G62:G84)	=SUM(H62:H84)	=SUM(I62:I84)	=SUM(J62:J84)	=SUM(K62:K84)	=SUM(L62:L84)	=SUM(M62:M84)		36-40	=SUM(B104:M104)
86															40-45	=SUM(B105:M105)
87	**Adjusted Proportion of Rural Traffic by Axle-Miles**														45-50	=SUM(B106:M106)
88		**2**	**2**	**3**	**SU**			**CMB Single Trailer**			**CMB Multi-trailer**				50-55	=SUM(B107:M107)
89					**2**	**3**	**4**	**4**	**5**	**6**	**5**	**6**	**7**		55-60	=SUM(B108:M108)
90	0-8	=B62/SUM($B$62:$M$84)	=C62/SUM($B$62:$M$84)	=D62/SUM($B$62:$M$84)	=E62/SUM($B$62:$M$84)	=F62/SUM($B$62:$M$84)	=G62/SUM($B$62:$M$84)	=H62/SUM($B$62:$M$84)	=I62/SUM($B$62:$M$84)	=J62/SUM($B$62:$M$84)	=K62/SUM($B$62:$M$84)	=L62/SUM($B$62:$M$84)	=M62/SUM($B$62:$M$84)		60-65	=SUM(B109:M109)
91	8-10	=B63/SUM($B$62:$M$84)	=C63/SUM($B$62:$M$84)	=D63/SUM($B$62:$M$84)	=E63/SUM($B$62:$M$84)	=F63/SUM($B$62:$M$84)	=G63/SUM($B$62:$M$84)	=H63/SUM($B$62:$M$84)	=I63/SUM($B$62:$M$84)	=J63/SUM($B$62:$M$84)	=K63/SUM($B$62:$M$84)	=L63/SUM($B$62:$M$84)	=M63/SUM($B$62:$M$84)		65-70	=SUM(B110:M110)
92	10-12	=B64/SUM($B$62:$M$84)	=C64/SUM($B$62:$M$84)	=D64/SUM($B$62:$M$84)	=E64/SUM($B$62:$M$84)	=F64/SUM($B$62:$M$84)	=G64/SUM($B$62:$M$84)	=H64/SUM($B$62:$M$84)	=I64/SUM($B$62:$M$84)	=J64/SUM($B$62:$M$84)	=K64/SUM($B$62:$M$84)	=L64/SUM($B$62:$M$84)	=M64/SUM($B$62:$M$84)		70-75	=SUM(B111:M111)
93	12-14	=B65/SUM($B$62:$M$84)	=C65/SUM($B$62:$M$84)	=D65/SUM($B$62:$M$84)	=E65/SUM($B$62:$M$84)	=F65/SUM($B$62:$M$84)	=G65/SUM($B$62:$M$84)	=H65/SUM($B$62:$M$84)	=I65/SUM($B$62:$M$84)	=J65/SUM($B$62:$M$84)	=K65/SUM($B$62:$M$84)	=L65/SUM($B$62:$M$84)	=M65/SUM($B$62:$M$84)		75-80	=SUM(B112:M112)
94	14-16	=B66/SUM($B$62:$M$84)	=C66/SUM($B$62:$M$84)	=D66/SUM($B$62:$M$84)	=E66/SUM($B$62:$M$84)	=F66/SUM($B$62:$M$84)	=G66/SUM($B$62:$M$84)	=H66/SUM($B$62:$M$84)	=I66/SUM($B$62:$M$84)	=J66/SUM($B$62:$M$84)	=K66/SUM($B$62:$M$84)	=L66/SUM($B$62:$M$84)	=M66/SUM($B$62:$M$84)		**Total**	**=SUM(P71:P93)**

TRAF WGT

	A	B	C	D	E	F	G	H	I	J	K	L	M
95	16-18	=B67/SUM($B$62:$M$84)	=C67/SUM($B$62:$M$84)	=D67/SUM($B$62:$M$84)	=E67/SUM($B$62:$M$84)	=F67/SUM($B$62:$M$84)	=G67/SUM($B$62:$M$84)	=H67/SUM($B$62:$M$84)	=I67/SUM($B$62:$M$84)	=J67/SUM($B$62:$M$84)	=K67/SUM($B$62:$M$84)	=L67/SUM($B$62:$M$84)	=M67/SUM($B$62:$M$84)
96	18-20	=B68/SUM($B$62:$M$84)	=C68/SUM($B$62:$M$84)	=D68/SUM($B$62:$M$84)	=E68/SUM($B$62:$M$84)	=F68/SUM($B$62:$M$84)	=G68/SUM($B$62:$M$84)	=H68/SUM($B$62:$M$84)	=I68/SUM($B$62:$M$84)	=J68/SUM($B$62:$M$84)	=K68/SUM($B$62:$M$84)	=L68/SUM($B$62:$M$84)	=M68/SUM($B$62:$M$84)
97	20-22	=B69/SUM($B$62:$M$84)	=C69/SUM($B$62:$M$84)	=D69/SUM($B$62:$M$84)	=E69/SUM($B$62:$M$84)	=F69/SUM($B$62:$M$84)	=G69/SUM($B$62:$M$84)	=H69/SUM($B$62:$M$84)	=I69/SUM($B$62:$M$84)	=J69/SUM($B$62:$M$84)	=K69/SUM($B$62:$M$84)	=L69/SUM($B$62:$M$84)	=M69/SUM($B$62:$M$84)
98	22-24	=B70/SUM($B$62:$M$84)	=C70/SUM($B$62:$M$84)	=D70/SUM($B$62:$M$84)	=E70/SUM($B$62:$M$84)	=F70/SUM($B$62:$M$84)	=G70/SUM($B$62:$M$84)	=H70/SUM($B$62:$M$84)	=I70/SUM($B$62:$M$84)	=J70/SUM($B$62:$M$84)	=K70/SUM($B$62:$M$84)	=L70/SUM($B$62:$M$84)	=M70/SUM($B$62:$M$84)
99	24-26	=B71/SUM($B$62:$M$84)	=C71/SUM($B$62:$M$84)	=D71/SUM($B$62:$M$84)	=E71/SUM($B$62:$M$84)	=F71/SUM($B$62:$M$84)	=G71/SUM($B$62:$M$84)	=H71/SUM($B$62:$M$84)	=I71/SUM($B$62:$M$84)	=J71/SUM($B$62:$M$84)	=K71/SUM($B$62:$M$84)	=L71/SUM($B$62:$M$84)	=M71/SUM($B$62:$M$84)
100	26-28	=B72/SUM($B$62:$M$84)	=C72/SUM($B$62:$M$84)	=D72/SUM($B$62:$M$84)	=E72/SUM($B$62:$M$84)	=F72/SUM($B$62:$M$84)	=G72/SUM($B$62:$M$84)	=H72/SUM($B$62:$M$84)	=I72/SUM($B$62:$M$84)	=J72/SUM($B$62:$M$84)	=K72/SUM($B$62:$M$84)	=L72/SUM($B$62:$M$84)	=M72/SUM($B$62:$M$84)
101	28-30	=B73/SUM($B$62:$M$84)	=C73/SUM($B$62:$M$84)	=D73/SUM($B$62:$M$84)	=E73/SUM($B$62:$M$84)	=F73/SUM($B$62:$M$84)	=G73/SUM($B$62:$M$84)	=H73/SUM($B$62:$M$84)	=I73/SUM($B$62:$M$84)	=J73/SUM($B$62:$M$84)	=K73/SUM($B$62:$M$84)	=L73/SUM($B$62:$M$84)	=M73/SUM($B$62:$M$84)
102	30-32	=B74/SUM($B$62:$M$84)	=C74/SUM($B$62:$M$84)	=D74/SUM($B$62:$M$84)	=E74/SUM($B$62:$M$84)	=F74/SUM($B$62:$M$84)	=G74/SUM($B$62:$M$84)	=H74/SUM($B$62:$M$84)	=I74/SUM($B$62:$M$84)	=J74/SUM($B$62:$M$84)	=K74/SUM($B$62:$M$84)	=L74/SUM($B$62:$M$84)	=M74/SUM($B$62:$M$84)
103	32-36	=B75/SUM($B$62:$M$84)	=C75/SUM($B$62:$M$84)	=D75/SUM($B$62:$M$84)	=E75/SUM($B$62:$M$84)	=F75/SUM($B$62:$M$84)	=G75/SUM($B$62:$M$84)	=H75/SUM($B$62:$M$84)	=I75/SUM($B$62:$M$84)	=J75/SUM($B$62:$M$84)	=K75/SUM($B$62:$M$84)	=L75/SUM($B$62:$M$84)	=M75/SUM($B$62:$M$84)
104	36-40	=B76/SUM($B$62:$M$84)	=C76/SUM($B$62:$M$84)	=D76/SUM($B$62:$M$84)	=E76/SUM($B$62:$M$84)	=F76/SUM($B$62:$M$84)	=G76/SUM($B$62:$M$84)	=H76/SUM($B$62:$M$84)	=I76/SUM($B$62:$M$84)	=J76/SUM($B$62:$M$84)	=K76/SUM($B$62:$M$84)	=L76/SUM($B$62:$M$84)	=M76/SUM($B$62:$M$84)
105	40-45	=B77/SUM($B$62:$M$84)	=C77/SUM($B$62:$M$84)	=D77/SUM($B$62:$M$84)	=E77/SUM($B$62:$M$84)	=F77/SUM($B$62:$M$84)	=G77/SUM($B$62:$M$84)	=H77/SUM($B$62:$M$84)	=I77/SUM($B$62:$M$84)	=J77/SUM($B$62:$M$84)	=K77/SUM($B$62:$M$84)	=L77/SUM($B$62:$M$84)	=M77/SUM($B$62:$M$84)
106	45-50	=B78/SUM($B$62:$M$84)	=C78/SUM($B$62:$M$84)	=D78/SUM($B$62:$M$84)	=E78/SUM($B$62:$M$84)	=F78/SUM($B$62:$M$84)	=G78/SUM($B$62:$M$84)	=H78/SUM($B$62:$M$84)	=I78/SUM($B$62:$M$84)	=J78/SUM($B$62:$M$84)	=K78/SUM($B$62:$M$84)	=L78/SUM($B$62:$M$84)	=M78/SUM($B$62:$M$84)
107	50-55	=B79/SUM($B$62:$M$84)	=C79/SUM($B$62:$M$84)	=D79/SUM($B$62:$M$84)	=E79/SUM($B$62:$M$84)	=F79/SUM($B$62:$M$84)	=G79/SUM($B$62:$M$84)	=H79/SUM($B$62:$M$84)	=I79/SUM($B$62:$M$84)	=J79/SUM($B$62:$M$84)	=K79/SUM($B$62:$M$84)	=L79/SUM($B$62:$M$84)	=M79/SUM($B$62:$M$84)
108	55-60	=B80/SUM($B$62:$M$84)	=C80/SUM($B$62:$M$84)	=D80/SUM($B$62:$M$84)	=E80/SUM($B$62:$M$84)	=F80/SUM($B$62:$M$84)	=G80/SUM($B$62:$M$84)	=H80/SUM($B$62:$M$84)	=I80/SUM($B$62:$M$84)	=J80/SUM($B$62:$M$84)	=K80/SUM($B$62:$M$84)	=L80/SUM($B$62:$M$84)	=M80/SUM($B$62:$M$84)
109	60-65	=B81/SUM($B$62:$M$84)	=C81/SUM($B$62:$M$84)	=D81/SUM($B$62:$M$84)	=E81/SUM($B$62:$M$84)	=F81/SUM($B$62:$M$84)	=G81/SUM($B$62:$M$84)	=H81/SUM($B$62:$M$84)	=I81/SUM($B$62:$M$84)	=J81/SUM($B$62:$M$84)	=K81/SUM($B$62:$M$84)	=L81/SUM($B$62:$M$84)	=M81/SUM($B$62:$M$84)
110	65-70	=B82/SUM($B$62:$M$84)	=C82/SUM($B$62:$M$84)	=D82/SUM($B$62:$M$84)	=E82/SUM($B$62:$M$84)	=F82/SUM($B$62:$M$84)	=G82/SUM($B$62:$M$84)	=H82/SUM($B$62:$M$84)	=I82/SUM($B$62:$M$84)	=J82/SUM($B$62:$M$84)	=K82/SUM($B$62:$M$84)	=L82/SUM($B$62:$M$84)	=M82/SUM($B$62:$M$84)
111	70-75	=B83/SUM($B$62:$M$84)	=C83/SUM($B$62:$M$84)	=D83/SUM($B$62:$M$84)	=E83/SUM($B$62:$M$84)	=F83/SUM($B$62:$M$84)	=G83/SUM($B$62:$M$84)	=H83/SUM($B$62:$M$84)	=I83/SUM($B$62:$M$84)	=J83/SUM($B$62:$M$84)	=K83/SUM($B$62:$M$84)	=L83/SUM($B$62:$M$84)	=M83/SUM($B$62:$M$84)
112	75-80	=B84/SUM($B$62:$M$84)	=C84/SUM($B$62:$M$84)	=D84/SUM($B$62:$M$84)	=E84/SUM($B$62:$M$84)	=F84/SUM($B$62:$M$84)	=G84/SUM($B$62:$M$84)	=H84/SUM($B$62:$M$84)	=I84/SUM($B$62:$M$84)	=J84/SUM($B$62:$M$84)	=K84/SUM($B$62:$M$84)	=L84/SUM($B$62:$M$84)	=M84/SUM($B$62:$M$84)
113	**Total**	=SUM(B90:B112)	=SUM(C90:C112)	=SUM(D90:D112)	=SUM(E90:E112)	=SUM(F90:F112)	=SUM(G90:G112)	=SUM(H90:H112)	=SUM(I90:I112)	=SUM(J90:J112)	=SUM(K90:K112)	=SUM(L90:L112)	=SUM(M90:M112)

TRAF WGT

	O	P	Q	R	S
1	**Non-Commercial Matrix - Rural**				**Commercial Matrix - Rural**
2	**WGT**	**Autos**	**Pick-ups**		**WEIGHT**
3					
4	0-8	=B32/SUM($B$55:$C$55)	=C32/SUM($B$55:$C$55)		0 - 8,000 lb.
5	8-10	=B33/SUM($B$55:$C$55)	=C33/SUM($B$55:$C$55)		8,000-10,000 lb.
6	10-12	=B34/SUM($B$55:$C$55)	=C34/SUM($B$55:$C$55)		10,000-12,000 lb.
7	12-14	=B35/SUM($B$55:$C$55)	=C35/SUM($B$55:$C$55)		12,000-14,000 lb.
8	14-16	=B36/SUM($B$55:$C$55)	=C36/SUM($B$55:$C$55)		14,000-16,000 lb.
9	16-18	=B37/SUM($B$55:$C$55)	=C37/SUM($B$55:$C$55)		16,000-18,000 lb.
10	18-20	=B38/SUM($B$55:$C$55)	=C38/SUM($B$55:$C$55)		18,000-20,000 lb.
11	20-22	=B39/SUM($B$55:$C$55)	=C39/SUM($B$55:$C$55)		20,000-22,000 lb.
12	22-24	=B40/SUM($B$55:$C$55)	=C40/SUM($B$55:$C$55)		22,000-24,000 lb.
13	24-26	=B41/SUM($B$55:$C$55)	=C41/SUM($B$55:$C$55)		24,000-26,000 lb.
14	26-28	=B42/SUM($B$55:$C$55)	=C42/SUM($B$55:$C$55)		26,000-28,000 lb.
15	28-30	=B43/SUM($B$55:$C$55)	=C43/SUM($B$55:$C$55)		28,000-30,000 lb.
16	30-32	=B44/SUM($B$55:$C$55)	=C44/SUM($B$55:$C$55)		30,000-32,000 lb.
17	32-36	=B45/SUM($B$55:$C$55)	=C45/SUM($B$55:$C$55)		32,000-36,000 lb.
18	36-40	=B46/SUM($B$55:$C$55)	=C46/SUM($B$55:$C$55)		36,000-40,000 lb.
19	40-45	=B47/SUM($B$55:$C$55)	=C47/SUM($B$55:$C$55)		40,000-45,000 lb.
20	45-50	=B48/SUM($B$55:$C$55)	=C48/SUM($B$55:$C$55)		45,000-50,000 lb.
21	50-55	=B49/SUM($B$55:$C$55)	=C49/SUM($B$55:$C$55)		50,000-55,000 lb.
22	55-60	=B50/SUM($B$55:$C$55)	=C50/SUM($B$55:$C$55)		55,000-60,000 lb.
23	60-65	=B51/SUM($B$55:$C$55)	=C51/SUM($B$55:$C$55)		60,000-65,000 lb.
24	65-70	=B52/SUM($B$55:$C$55)	=C52/SUM($B$55:$C$55)		65,000-70,000 lb.
25	70-75	=B53/SUM($B$55:$C$55)	=C53/SUM($B$55:$C$55)		70,000-75,000 lb.
26	75-80	=B54/SUM($B$55:$C$55)	=C54/SUM($B$55:$C$55)		75,000-80,000 lb.
27	Total	=SUM(P4:P26)	=SUM(Q4:Q26)		Total
28					
29					
30	**TOTAL**		**Commercial**	**SU**	**CMB**
31			**Commercial**		
32	=SUM(B32:M32)		=SUM(E32:M32)/SUM($E$55:$M$55)	=SUM(E32:G32)/SUM($E$55:$M$55)	=SUM(H32:M32)/SUM($E$55:$M$55)
33	=SUM(B33:M33)		=SUM(E33:M33)/SUM($E$55:$M$55)	=SUM(E33:G33)/SUM($E$55:$M$55)	=SUM(H33:M33)/SUM($E$55:$M$55)
34	=SUM(B34:M34)		=SUM(E34:M34)/SUM($E$55:$M$55)	=SUM(E34:G34)/SUM($E$55:$M$55)	=SUM(H34:M34)/SUM($E$55:$M$55)
35	=SUM(B35:M35)		=SUM(E35:M35)/SUM($E$55:$M$55)	=SUM(E35:G35)/SUM($E$55:$M$55)	=SUM(H35:M35)/SUM($E$55:$M$55)
36	=SUM(B36:M36)		=SUM(E36:M36)/SUM($E$55:$M$55)	=SUM(E36:G36)/SUM($E$55:$M$55)	=SUM(H36:M36)/SUM($E$55:$M$55)
37	=SUM(B37:M37)		=SUM(E37:M37)/SUM($E$55:$M$55)	=SUM(E37:G37)/SUM($E$55:$M$55)	=SUM(H37:M37)/SUM($E$55:$M$55)
38	=SUM(B38:M38)		=SUM(E38:M38)/SUM($E$55:$M$55)	=SUM(E38:G38)/SUM($E$55:$M$55)	=SUM(H38:M38)/SUM($E$55:$M$55)
39	=SUM(B39:M39)		=SUM(E39:M39)/SUM($E$55:$M$55)	=SUM(E39:G39)/SUM($E$55:$M$55)	=SUM(H39:M39)/SUM($E$55:$M$55)
40	=SUM(B40:M40)		=SUM(E40:M40)/SUM($E$55:$M$55)	=SUM(E40:G40)/SUM($E$55:$M$55)	=SUM(H40:M40)/SUM($E$55:$M$55)
41	=SUM(B41:M41)		=SUM(E41:M41)/SUM($E$55:$M$55)	=SUM(E41:G41)/SUM($E$55:$M$55)	=SUM(H41:M41)/SUM($E$55:$M$55)
42	=SUM(B42:M42)		=SUM(E42:M42)/SUM($E$55:$M$55)	=SUM(E42:G42)/SUM($E$55:$M$55)	=SUM(H42:M42)/SUM($E$55:$M$55)
43	=SUM(B43:M43)		=SUM(E43:M43)/SUM($E$55:$M$55)	=SUM(E43:G43)/SUM($E$55:$M$55)	=SUM(H43:M43)/SUM($E$55:$M$55)
44	=SUM(B44:M44)		=SUM(E44:M44)/SUM($E$55:$M$55)	=SUM(E44:G44)/SUM($E$55:$M$55)	=SUM(H44:M44)/SUM($E$55:$M$55)
45	=SUM(B45:M45)		=SUM(E45:M45)/SUM($E$55:$M$55)	=SUM(E45:G45)/SUM($E$55:$M$55)	=SUM(H45:M45)/SUM($E$55:$M$55)
46	=SUM(B46:M46)		=SUM(E46:M46)/SUM($E$55:$M$55)	=SUM(E46:G46)/SUM($E$55:$M$55)	=SUM(H46:M46)/SUM($E$55:$M$55)
47	=SUM(B47:M47)		=SUM(E47:M47)/SUM($E$55:$M$55)	=SUM(E47:G47)/SUM($E$55:$M$55)	=SUM(H47:M47)/SUM($E$55:$M$55)
48	=SUM(B48:M48)		=SUM(E48:M48)/SUM($E$55:$M$55)	=SUM(E48:G48)/SUM($E$55:$M$55)	=SUM(H48:M48)/SUM($E$55:$M$55)
49	=SUM(B49:M49)		=SUM(E49:M49)/SUM($E$55:$M$55)	=SUM(E49:G49)/SUM($E$55:$M$55)	=SUM(H49:M49)/SUM($E$55:$M$55)

TRAF WGT

	O	P	Q	R	S
50	=SUM(B50:M50)		=SUM(E50:M50)/SUM($E$55:$M$55)	=SUM(E50:G50)/SUM($E$55:$M$55)	=SUM(H50:M50)/SUM($E$55:$M$55)
51	=SUM(B51:M51)		=SUM(E51:M51)/SUM($E$55:$M$55)	=SUM(E51:G51)/SUM($E$55:$M$55)	=SUM(H51:M51)/SUM($E$55:$M$55)
52	=SUM(B52:M52)		=SUM(E52:M52)/SUM($E$55:$M$55)	=SUM(E52:G52)/SUM($E$55:$M$55)	=SUM(H52:M52)/SUM($E$55:$M$55)
53	=SUM(B53:M53)		=SUM(E53:M53)/SUM($E$55:$M$55)	=SUM(E53:G53)/SUM($E$55:$M$55)	=SUM(H53:M53)/SUM($E$55:$M$55)
54	=SUM(B54:M54)		=SUM(E54:M54)/SUM($E$55:$M$55)	=SUM(E54:G54)/SUM($E$55:$M$55)	=SUM(H54:M54)/SUM($E$55:$M$55)
55	=SUM(O32:O54)		=SUM(Q32:Q54)	=SUM(R32:R54)	=SUM(S32:S54)

	T	U	V	W	X	Y	Z	AA	AB	AC
1										
2	**Buses**	**SU**			**CMB Single Trailer**			**CMB Multi-trailer**		
3		**2A 6T**	**3A**	**4A**	**CS 4A**	**CS 5A**	**CS 6A**	**CM 5A**	**CM 6A**	**CM 7A**
4	=D32/SUM($D$55:$M$55)	=E32/SUM($D$55:$M$55)	=F32/SUM($D$55:$M$55)	=G32/SUM($D$55:$M$55)	=H32/SUM($D$55:$M$55)	=I32/SUM($D$55:$M$55)	=J32/SUM($D$55:$M$55)	=K32/SUM($D$55:$M$55)	=L32/SUM($D$55:$M$55)	=M32/SUM($D$55:$M$55)
5	=D33/SUM($D$55:$M$55)	=E33/SUM($D$55:$M$55)	=F33/SUM($D$55:$M$55)	=G33/SUM($D$55:$M$55)	=H33/SUM($D$55:$M$55)	=I33/SUM($D$55:$M$55)	=J33/SUM($D$55:$M$55)	=K33/SUM($D$55:$M$55)	=L33/SUM($D$55:$M$55)	=M33/SUM($D$55:$M$55)
6	=D34/SUM($D$55:$M$55)	=E34/SUM($D$55:$M$55)	=F34/SUM($D$55:$M$55)	=G34/SUM($D$55:$M$55)	=H34/SUM($D$55:$M$55)	=I34/SUM($D$55:$M$55)	=J34/SUM($D$55:$M$55)	=K34/SUM($D$55:$M$55)	=L34/SUM($D$55:$M$55)	=M34/SUM($D$55:$M$55)
7	=D35/SUM($D$55:$M$55)	=E35/SUM($D$55:$M$55)	=F35/SUM($D$55:$M$55)	=G35/SUM($D$55:$M$55)	=H35/SUM($D$55:$M$55)	=I35/SUM($D$55:$M$55)	=J35/SUM($D$55:$M$55)	=K35/SUM($D$55:$M$55)	=L35/SUM($D$55:$M$55)	=M35/SUM($D$55:$M$55)
8	=D36/SUM($D$55:$M$55)	=E36/SUM($D$55:$M$55)	=F36/SUM($D$55:$M$55)	=G36/SUM($D$55:$M$55)	=H36/SUM($D$55:$M$55)	=I36/SUM($D$55:$M$55)	=J36/SUM($D$55:$M$55)	=K36/SUM($D$55:$M$55)	=L36/SUM($D$55:$M$55)	=M36/SUM($D$55:$M$55)
9	=D37/SUM($D$55:$M$55)	=E37/SUM($D$55:$M$55)	=F37/SUM($D$55:$M$55)	=G37/SUM($D$55:$M$55)	=H37/SUM($D$55:$M$55)	=I37/SUM($D$55:$M$55)	=J37/SUM($D$55:$M$55)	=K37/SUM($D$55:$M$55)	=L37/SUM($D$55:$M$55)	=M37/SUM($D$55:$M$55)
10	=D38/SUM($D$55:$M$55)	=E38/SUM($D$55:$M$55)	=F38/SUM($D$55:$M$55)	=G38/SUM($D$55:$M$55)	=H38/SUM($D$55:$M$55)	=I38/SUM($D$55:$M$55)	=J38/SUM($D$55:$M$55)	=K38/SUM($D$55:$M$55)	=L38/SUM($D$55:$M$55)	=M38/SUM($D$55:$M$55)
11	=D39/SUM($D$55:$M$55)	=E39/SUM($D$55:$M$55)	=F39/SUM($D$55:$M$55)	=G39/SUM($D$55:$M$55)	=H39/SUM($D$55:$M$55)	=I39/SUM($D$55:$M$55)	=J39/SUM($D$55:$M$55)	=K39/SUM($D$55:$M$55)	=L39/SUM($D$55:$M$55)	=M39/SUM($D$55:$M$55)
12	=D40/SUM($D$55:$M$55)	=E40/SUM($D$55:$M$55)	=F40/SUM($D$55:$M$55)	=G40/SUM($D$55:$M$55)	=H40/SUM($D$55:$M$55)	=I40/SUM($D$55:$M$55)	=J40/SUM($D$55:$M$55)	=K40/SUM($D$55:$M$55)	=L40/SUM($D$55:$M$55)	=M40/SUM($D$55:$M$55)
13	=D41/SUM($D$55:$M$55)	=E41/SUM($D$55:$M$55)	=F41/SUM($D$55:$M$55)	=G41/SUM($D$55:$M$55)	=H41/SUM($D$55:$M$55)	=I41/SUM($D$55:$M$55)	=J41/SUM($D$55:$M$55)	=K41/SUM($D$55:$M$55)	=L41/SUM($D$55:$M$55)	=M41/SUM($D$55:$M$55)
14	=D42/SUM($D$55:$M$55)	=E42/SUM($D$55:$M$55)	=F42/SUM($D$55:$M$55)	=G42/SUM($D$55:$M$55)	=H42/SUM($D$55:$M$55)	=I42/SUM($D$55:$M$55)	=J42/SUM($D$55:$M$55)	=K42/SUM($D$55:$M$55)	=L42/SUM($D$55:$M$55)	=M42/SUM($D$55:$M$55)
15	=D43/SUM($D$55:$M$55)	=E43/SUM($D$55:$M$55)	=F43/SUM($D$55:$M$55)	=G43/SUM($D$55:$M$55)	=H43/SUM($D$55:$M$55)	=I43/SUM($D$55:$M$55)	=J43/SUM($D$55:$M$55)	=K43/SUM($D$55:$M$55)	=L43/SUM($D$55:$M$55)	=M43/SUM($D$55:$M$55)
16	=D44/SUM($D$55:$M$55)	=E44/SUM($D$55:$M$55)	=F44/SUM($D$55:$M$55)	=G44/SUM($D$55:$M$55)	=H44/SUM($D$55:$M$55)	=I44/SUM($D$55:$M$55)	=J44/SUM($D$55:$M$55)	=K44/SUM($D$55:$M$55)	=L44/SUM($D$55:$M$55)	=M44/SUM($D$55:$M$55)
17	=D45/SUM($D$55:$M$55)	=E45/SUM($D$55:$M$55)	=F45/SUM($D$55:$M$55)	=G45/SUM($D$55:$M$55)	=H45/SUM($D$55:$M$55)	=I45/SUM($D$55:$M$55)	=J45/SUM($D$55:$M$55)	=K45/SUM($D$55:$M$55)	=L45/SUM($D$55:$M$55)	=M45/SUM($D$55:$M$55)
18	=D46/SUM($D$55:$M$55)	=E46/SUM($D$55:$M$55)	=F46/SUM($D$55:$M$55)	=G46/SUM($D$55:$M$55)	=H46/SUM($D$55:$M$55)	=I46/SUM($D$55:$M$55)	=J46/SUM($D$55:$M$55)	=K46/SUM($D$55:$M$55)	=L46/SUM($D$55:$M$55)	=M46/SUM($D$55:$M$55)
19	=D47/SUM($D$55:$M$55)	=E47/SUM($D$55:$M$55)	=F47/SUM($D$55:$M$55)	=G47/SUM($D$55:$M$55)	=H47/SUM($D$55:$M$55)	=I47/SUM($D$55:$M$55)	=J47/SUM($D$55:$M$55)	=K47/SUM($D$55:$M$55)	=L47/SUM($D$55:$M$55)	=M47/SUM($D$55:$M$55)
20	=D48/SUM($D$55:$M$55)	=E48/SUM($D$55:$M$55)	=F48/SUM($D$55:$M$55)	=G48/SUM($D$55:$M$55)	=H48/SUM($D$55:$M$55)	=I48/SUM($D$55:$M$55)	=J48/SUM($D$55:$M$55)	=K48/SUM($D$55:$M$55)	=L48/SUM($D$55:$M$55)	=M48/SUM($D$55:$M$55)
21	=D49/SUM($D$55:$M$55)	=E49/SUM($D$55:$M$55)	=F49/SUM($D$55:$M$55)	=G49/SUM($D$55:$M$55)	=H49/SUM($D$55:$M$55)	=I49/SUM($D$55:$M$55)	=J49/SUM($D$55:$M$55)	=K49/SUM($D$55:$M$55)	=L49/SUM($D$55:$M$55)	=M49/SUM($D$55:$M$55)
22	=D50/SUM($D$55:$M$55)	=E50/SUM($D$55:$M$55)	=F50/SUM($D$55:$M$55)	=G50/SUM($D$55:$M$55)	=H50/SUM($D$55:$M$55)	=I50/SUM($D$55:$M$55)	=J50/SUM($D$55:$M$55)	=K50/SUM($D$55:$M$55)	=L50/SUM($D$55:$M$55)	=M50/SUM($D$55:$M$55)
23	=D51/SUM($D$55:$M$55)	=E51/SUM($D$55:$M$55)	=F51/SUM($D$55:$M$55)	=G51/SUM($D$55:$M$55)	=H51/SUM($D$55:$M$55)	=I51/SUM($D$55:$M$55)	=J51/SUM($D$55:$M$55)	=K51/SUM($D$55:$M$55)	=L51/SUM($D$55:$M$55)	=M51/SUM($D$55:$M$55)
24	=D52/SUM($D$55:$M$55)	=E52/SUM($D$55:$M$55)	=F52/SUM($D$55:$M$55)	=G52/SUM($D$55:$M$55)	=H52/SUM($D$55:$M$55)	=I52/SUM($D$55:$M$55)	=J52/SUM($D$55:$M$55)	=K52/SUM($D$55:$M$55)	=L52/SUM($D$55:$M$55)	=M52/SUM($D$55:$M$55)

TRAF WGT

	T	U	V	W	X	Y	Z	AA	AB	AC
25	=D53/SUM($D$55:$M$55)	=E53/SUM($D$55:$M$55)	=F53/SUM($D$55:$M$55)	=G53/SUM($D$55:$M$55)	=H53/SUM($D$55:$M$55)	=I53/SUM($D$55:$M$55)	=J53/SUM($D$55:$M$55)	=K53/SUM($D$55:$M$55)	=L53/SUM($D$55:$M$55)	=M53/SUM($D$55:$M$55)
26	=D54/SUM($D$55:$M$55)	=E54/SUM($D$55:$M$55)	=F54/SUM($D$55:$M$55)	=G54/SUM($D$55:$M$55)	=H54/SUM($D$55:$M$55)	=I54/SUM($D$55:$M$55)	=J54/SUM($D$55:$M$55)	=K54/SUM($D$55:$M$55)	=L54/SUM($D$55:$M$55)	=M54/SUM($D$55:$M$55)
27	=SUM(T4:T26)	=SUM(U4:U26)	=SUM(V4:V26)	=SUM(W4:W26)	=SUM(X4:X26)	=SUM(Y4:Y26)	=SUM(Z4:Z26)	=SUM(AA4:AA26)	=SUM(AB4:AB26)	=SUM(AC4:AC26)

TRK VAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	**Original HCAS Valuations**									**Scaled Valuations**				**COMWGT Ratios**		
2	**VEH**	**RGW**	**1990 $**	**VEH TYPE**	**RGW**	**1990 $**		**CMB/SU**		**Sum Val**	**SU**	**CMB**		**SU**	**CMB**	**Total**
3	SU	0-8	12.2	CMB	0-8	29.8		=F3/C3		=SUM(C3,F3)	=C3/SUM($J$3:$J$25)	=F3/SUM($J$3:$J$25)		=SUM(COMWGT!$B5:$D5)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(COMWGT!$F5:$H5,COMWGT!$J5:$L5)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(N3:O3)
4	SU	8-10	14.9	CMB	8-10	31.7		=F4/C4		=SUM(C4,F4)	=C4/SUM($J$3:$J$25)	=F4/SUM($J$3:$J$25)		=SUM(COMWGT!$B6:$D6)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(COMWGT!$F6:$H6,COMWGT!$J6:$L6)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(N4:O4)
5	SU	10-12	17.6	CMB	10-12	33.5		=F5/C5		=SUM(C5,F5)	=C5/SUM($J$3:$J$25)	=F5/SUM($J$3:$J$25)		=SUM(COMWGT!$B7:$D7)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(COMWGT!$F7:$H7,COMWGT!$J7:$L7)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(N5:O5)
6	SU	12-14	20.2	CMB	12-14	35.4		=F6/C6		=SUM(C6,F6)	=C6/SUM($J$3:$J$25)	=F6/SUM($J$3:$J$25)		=SUM(COMWGT!$B8:$D8)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(COMWGT!$F8:$H8,COMWGT!$J8:$L8)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(N6:O6)
7	SU	14-16	22.9	CMB	14-16	37.3		=F7/C7		=SUM(C7,F7)	=C7/SUM($J$3:$J$25)	=F7/SUM($J$3:$J$25)		=SUM(COMWGT!$B9:$D9)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(COMWGT!$F9:$H9,COMWGT!$J9:$L9)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(N7:O7)
8	SU	16-18	25.5	CMB	16-18	39.1		=F8/C8		=SUM(C8,F8)	=C8/SUM($J$3:$J$25)	=F8/SUM($J$3:$J$25)		=SUM(COMWGT!$B10:$D10)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(COMWGT!$F10:$H10,COMWGT!$J10:$L10)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(N8:O8)
9	SU	18-20	28.2	CMB	18-20	41		=F9/C9		=SUM(C9,F9)	=C9/SUM($J$3:$J$25)	=F9/SUM($J$3:$J$25)		=SUM(COMWGT!$B11:$D11)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(COMWGT!$F11:$H11,COMWGT!$J11:$L11)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(N9:O9)
10	SU	20-22	30.9	CMB	20-22	42.9		=F10/C10		=SUM(C10,F10)	=C10/SUM($J$3:$J$25)	=F10/SUM($J$3:$J$25)		=SUM(COMWGT!$B12:$D12)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(COMWGT!$F12:$H12,COMWGT!$J12:$L12)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(N10:O10)
11	SU	22-24	33.5	CMB	22-24	44.7		=F11/C11		=SUM(C11,F11)	=C11/SUM($J$3:$J$25)	=F11/SUM($J$3:$J$25)		=SUM(COMWGT!$B13:$D13)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(COMWGT!$F13:$H13,COMWGT!$J13:$L13)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(N11:O11)
12	SU	24-26	36.2	CMB	24-26	46.6		=F12/C12		=SUM(C12,F12)	=C12/SUM($J$3:$J$25)	=F12/SUM($J$3:$J$25)		=SUM(COMWGT!$B14:$D14)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(COMWGT!$F14:$H14,COMWGT!$J14:$L14)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(N12:O12)
13	SU	26-28	38.8	CMB	26-28	48.5		=F13/C13		=SUM(C13,F13)	=C13/SUM($J$3:$J$25)	=F13/SUM($J$3:$J$25)		=SUM(COMWGT!$B15:$D15)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(COMWGT!$F15:$H15,COMWGT!$J15:$L15)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(N13:O13)

TRK VAL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
14	SU	28-30	41.5	CMB	28-30	50.4		=F14/C14		=SUM(C14,F14)	=C14/SUM($J$3:$J$25)	=F14/SUM($J$3:$J$25)		=SUM(COMWGT!$B16:$D16)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(COMWGT!$F16:$H16,COMWGT!$J16:$L16)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(N14:O14)
15	SU	30-32	44.2	CMB	30-32	52.2		=F15/C15		=SUM(C15,F15)	=C15/SUM($J$3:$J$25)	=F15/SUM($J$3:$J$25)		=SUM(COMWGT!$B17:$D17)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(COMWGT!$F17:$H17,COMWGT!$J17:$L17)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(N15:O15)
16	SU	32-36	49.5	CMB	32-36	56		=F16/C16		=SUM(C16,F16)	=C16/SUM($J$3:$J$25)	=F16/SUM($J$3:$J$25)		=SUM(COMWGT!$B18:$D18)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(COMWGT!$F18:$H18,COMWGT!$J18:$L18)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(N16:O16)
17	SU	36-40	54.8	CMB	36-40	59.7		=F17/C17		=SUM(C17,F17)	=C17/SUM($J$3:$J$25)	=F17/SUM($J$3:$J$25)		=SUM(COMWGT!$B19:$D19)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(COMWGT!$F19:$H19,COMWGT!$J19:$L19)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(N17:O17)
18	SU	40-45	61.4	CMB	40-45	64.4		=F18/C18		=SUM(C18,F18)	=C18/SUM($J$3:$J$25)	=F18/SUM($J$3:$J$25)		=SUM(COMWGT!$B20:$D20)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(COMWGT!$F20:$H20,COMWGT!$J20:$L20)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(N18:O18)
19	SU	45-50	68.1	CMB	45-50	69.1		=F19/C19		=SUM(C19,F19)	=C19/SUM($J$3:$J$25)	=F19/SUM($J$3:$J$25)		=SUM(COMWGT!$B21:$D21)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(COMWGT!$F21:$H21,COMWGT!$J21:$L21)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(N19:O19)
20	SU	50-55	74.7	CMB	50-55	73.7		=F20/C20		=SUM(C20,F20)	=C20/SUM($J$3:$J$25)	=F20/SUM($J$3:$J$25)		=SUM(COMWGT!$B22:$D22)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(COMWGT!$F22:$H22,COMWGT!$J22:$L22)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(N20:O20)
21	SU	55-60	81.4	CMB	55-60	78.4		=F21/C21		=SUM(C21,F21)	=C21/SUM($J$3:$J$25)	=F21/SUM($J$3:$J$25)		=SUM(COMWGT!$B23:$D23)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(COMWGT!$F23:$H23,COMWGT!$J23:$L23)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(N21:O21)
22	SU	60-65	88	CMB	60-65	83.1		=F22/C22		=SUM(C22,F22)	=C22/SUM($J$3:$J$25)	=F22/SUM($J$3:$J$25)		=SUM(COMWGT!$B24:$D24)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(COMWGT!$F24:$H24,COMWGT!$J24:$L24)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(N22:O22)
23	SU	65-70	94.7	CMB	65-70	87.8		=F23/C23		=SUM(C23,F23)	=C23/SUM($J$3:$J$25)	=F23/SUM($J$3:$J$25)		=SUM(COMWGT!$B25:$D25)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(COMWGT!$F25:$H25,COMWGT!$J25:$L25)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(N23:O23)
24	SU	70-75	101.3	CMB	70-75	92.4		=F24/C24		=SUM(C24,F24)	=C24/SUM($J$3:$J$25)	=F24/SUM($J$3:$J$25)		=SUM(COMWGT!$B26:$D26)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(COMWGT!$F26:$H26,COMWGT!$J26:$L26)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(N24:O24)
25	SU	75-80	108	CMB	75-80	97.1		=F25/C25		=SUM(C25,F25)	=C25/SUM($J$3:$J$25)	=F25/SUM($J$3:$J$25)		=SUM(COMWGT!$B27:$D27)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(COMWGT!$F27:$H27,COMWGT!$J27:$L27)/SUM(COMWGT!$B$29:$D$29,COMWGT!$F$29:$H$29,COMWGT!$J$29:$L$29)	=SUM(N25:O25)
26											=SUM(K3:K25)	=SUM(L3:L25)		=SUM(N3:N25)	=SUM(O3:O25)	=SUM(P3:P25)

TRK VAL

	R	S	T	U	V	W	X	Y	Z	AA	AB
1	**Allocation ADJ**				**Allocation Factors by Class**				**Allocation Factors by Total**		
2	**SU**	**CMB**	**Total**		**SU**	**CMB**	**Total**		**SU**	**CMB**	**Total**
3	=K3*N3	=L3*O3	=SUM(K3:L3)*P3		=R3/$R$26	=S3/$S$26	=T3/$T$26		=R3/SUM($R$26:$S$26)	=S3/SUM($R$26:$S$26)	=SUM(Z3:AA3)
4	=K4*N4	=L4*O4	=SUM(K4:L4)*P4		=R4/$R$26	=S4/$S$26	=T4/$T$26		=R4/SUM($R$26:$S$26)	=S4/SUM($R$26:$S$26)	=SUM(Z4:AA4)
5	=K5*N5	=L5*O5	=SUM(K5:L5)*P5		=R5/$R$26	=S5/$S$26	=T5/$T$26		=R5/SUM($R$26:$S$26)	=S5/SUM($R$26:$S$26)	=SUM(Z5:AA5)
6	=K6*N6	=L6*O6	=SUM(K6:L6)*P6		=R6/$R$26	=S6/$S$26	=T6/$T$26		=R6/SUM($R$26:$S$26)	=S6/SUM($R$26:$S$26)	=SUM(Z6:AA6)
7	=K7*N7	=L7*O7	=SUM(K7:L7)*P7		=R7/$R$26	=S7/$S$26	=T7/$T$26		=R7/SUM($R$26:$S$26)	=S7/SUM($R$26:$S$26)	=SUM(Z7:AA7)
8	=K8*N8	=L8*O8	=SUM(K8:L8)*P8		=R8/$R$26	=S8/$S$26	=T8/$T$26		=R8/SUM($R$26:$S$26)	=S8/SUM($R$26:$S$26)	=SUM(Z8:AA8)
9	=K9*N9	=L9*O9	=SUM(K9:L9)*P9		=R9/$R$26	=S9/$S$26	=T9/$T$26		=R9/SUM($R$26:$S$26)	=S9/SUM($R$26:$S$26)	=SUM(Z9:AA9)
10	=K10*N10	=L10*O10	=SUM(K10:L10)*P10		=R10/$R$26	=S10/$S$26	=T10/$T$26		=R10/SUM($R$26:$S$26)	=S10/SUM($R$26:$S$26)	=SUM(Z10:AA10)
11	=K11*N11	=L11*O11	=SUM(K11:L11)*P11		=R11/$R$26	=S11/$S$26	=T11/$T$26		=R11/SUM($R$26:$S$26)	=S11/SUM($R$26:$S$26)	=SUM(Z11:AA11)
12	=K12*N12	=L12*O12	=SUM(K12:L12)*P12		=R12/$R$26	=S12/$S$26	=T12/$T$26		=R12/SUM($R$26:$S$26)	=S12/SUM($R$26:$S$26)	=SUM(Z12:AA12)
13	=K13*N13	=L13*O13	=SUM(K13:L13)*P13		=R13/$R$26	=S13/$S$26	=T13/$T$26		=R13/SUM($R$26:$S$26)	=S13/SUM($R$26:$S$26)	=SUM(Z13:AA13)
14	=K14*N14	=L14*O14	=SUM(K14:L14)*P14		=R14/$R$26	=S14/$S$26	=T14/$T$26		=R14/SUM($R$26:$S$26)	=S14/SUM($R$26:$S$26)	=SUM(Z14:AA14)
15	=K15*N15	=L15*O15	=SUM(K15:L15)*P15		=R15/$R$26	=S15/$S$26	=T15/$T$26		=R15/SUM($R$26:$S$26)	=S15/SUM($R$26:$S$26)	=SUM(Z15:AA15)
16	=K16*N16	=L16*O16	=SUM(K16:L16)*P16		=R16/$R$26	=S16/$S$26	=T16/$T$26		=R16/SUM($R$26:$S$26)	=S16/SUM($R$26:$S$26)	=SUM(Z16:AA16)
17	=K17*N17	=L17*O17	=SUM(K17:L17)*P17		=R17/$R$26	=S17/$S$26	=T17/$T$26		=R17/SUM($R$26:$S$26)	=S17/SUM($R$26:$S$26)	=SUM(Z17:AA17)
18	=K18*N18	=L18*O18	=SUM(K18:L18)*P18		=R18/$R$26	=S18/$S$26	=T18/$T$26		=R18/SUM($R$26:$S$26)	=S18/SUM($R$26:$S$26)	=SUM(Z18:AA18)
19	=K19*N19	=L19*O19	=SUM(K19:L19)*P19		=R19/$R$26	=S19/$S$26	=T19/$T$26		=R19/SUM($R$26:$S$26)	=S19/SUM($R$26:$S$26)	=SUM(Z19:AA19)
20	=K20*N20	=L20*O20	=SUM(K20:L20)*P20		=R20/$R$26	=S20/$S$26	=T20/$T$26		=R20/SUM($R$26:$S$26)	=S20/SUM($R$26:$S$26)	=SUM(Z20:AA20)
21	=K21*N21	=L21*O21	=SUM(K21:L21)*P21		=R21/$R$26	=S21/$S$26	=T21/$T$26		=R21/SUM($R$26:$S$26)	=S21/SUM($R$26:$S$26)	=SUM(Z21:AA21)
22	=K22*N22	=L22*O22	=SUM(K22:L22)*P22		=R22/$R$26	=S22/$S$26	=T22/$T$26		=R22/SUM($R$26:$S$26)	=S22/SUM($R$26:$S$26)	=SUM(Z22:AA22)
23	=K23*N23	=L23*O23	=SUM(K23:L23)*P23		=R23/$R$26	=S23/$S$26	=T23/$T$26		=R23/SUM($R$26:$S$26)	=S23/SUM($R$26:$S$26)	=SUM(Z23:AA23)
24	=K24*N24	=L24*O24	=SUM(K24:L24)*P24		=R24/$R$26	=S24/$S$26	=T24/$T$26		=R24/SUM($R$26:$S$26)	=S24/SUM($R$26:$S$26)	=SUM(Z24:AA24)
25	=K25*N25	=L25*O25	=SUM(K25:L25)*P25		=R25/$R$26	=S25/$S$26	=T25/$T$26		=R25/SUM($R$26:$S$26)	=S25/SUM($R$26:$S$26)	=SUM(Z25:AA25)
26	=SUM(R3:R25)	=SUM(S3:S25)	=SUM(T3:T25)		=SUM(V3:V25)	=SUM(W3:W25)	=SUM(X3:X25)		=SUM(Z3:Z25)	=SUM(AA3:AA25)	=SUM(AB3:AB25)

EXP OUT

	A	B	C	D	E	F	G
1	**Average Annual Expenditures,**		**='EXP IN'!B2**	**to**	**='EXP IN'!B3**		
2	(Thousands of Dollars)						
3	**VEH**	**State**			**Local**		
4		**Urban**	**Rural**	**Common & Ovrhd.**	**State Aid**	**Federal Aid**	**Other Local**
5	Autos	='EXP ARRAY'!$D$12*UVMT!$R5	='EXP ARRAY'!$E$12*'ESAL ADJ'!$P5	=('EXP ARRAY'!$B$12*VMT!$R5)+('EXP ARRAY'!$C$12*'TRAF WGT'!$P62)	=('EXP ARRAY'!J$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R5)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P62)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P5)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P62)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P5)	=('EXP ARRAY'!K$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R5)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P62)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P5)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P62)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P5)	=('EXP ARRAY'!L$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R5)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P62)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P5)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P62)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P5)
6	Pick-ups and SUVs	='EXP ARRAY'!$D$12*UVMT!$R6	='EXP ARRAY'!$E$12*'ESAL ADJ'!$P6	=('EXP ARRAY'!$B$12*VMT!$R6)+('EXP ARRAY'!$C$12*'TRAF WGT'!$P63)	=('EXP ARRAY'!J$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R6)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P63)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P6)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P63)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P6)	=('EXP ARRAY'!K$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R6)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P63)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P6)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P63)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P6)	=('EXP ARRAY'!L$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R6)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P63)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P6)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P63)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P6)
7	Buses	='EXP ARRAY'!$D$12*UVMT!$R7	='EXP ARRAY'!$E$12*'ESAL ADJ'!$P7	=('EXP ARRAY'!$B$12*VMT!$R7)+('EXP ARRAY'!$C$12*'TRAF WGT'!$P64)	=('EXP ARRAY'!J$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R7)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P64)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P7)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P64)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P7)	=('EXP ARRAY'!K$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R7)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P64)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P7)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P64)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P7)	=('EXP ARRAY'!L$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R7)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P64)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P7)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P64)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P7)
8	Single Unit trucks	='EXP ARRAY'!$D$12*UVMT!$R8	='EXP ARRAY'!$E$12*'ESAL ADJ'!$P8	=('EXP ARRAY'!$B$12*VMT!$R8)+('EXP ARRAY'!$C$12*'TRAF WGT'!$P65)	=('EXP ARRAY'!J$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R8)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P65)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P8)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P65)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P8)	=('EXP ARRAY'!K$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R8)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P65)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P8)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P65)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P8)	=('EXP ARRAY'!L$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R8)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P65)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P8)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P65)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P8)
9	Combination trucks	='EXP ARRAY'!$D$12*UVMT!$R9	='EXP ARRAY'!$E$12*'ESAL ADJ'!$P9	=('EXP ARRAY'!$B$12*VMT!$R9)+('EXP ARRAY'!$C$12*'TRAF WGT'!$P66)	=('EXP ARRAY'!J$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R9)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P66)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P9)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P66)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P9)	=('EXP ARRAY'!K$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R9)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P66)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P9)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P66)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P9)	=('EXP ARRAY'!L$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R9)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P66)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P9)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P66)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P9)
10	Total	=SUM(B5:B9)	=SUM(C5:C9)	=SUM(D5:D9)	=SUM(E5:E9)	=SUM(F5:F9)	=SUM(G5:G9)
11							
12	**WGT**	**State**			**Local**		
13		**Urban**	**Rural**	**Common & Overhead**	**State Aid**	**Federal Aid**	**Other Local**
14	0 - 8,000 lb.	='EXP ARRAY'!$D$12*UVMT!$R14	='EXP ARRAY'!$E$12*'ESAL ADJ'!$P14	=('EXP ARRAY'!$B$12*VMT!$R14)+('EXP ARRAY'!$C$12*'TRAF WGT'!$P71)	=('EXP ARRAY'!J$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R14)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P71)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P14)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P71)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P14)	=('EXP ARRAY'!K$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R14)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P71)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P14)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P71)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P14)	=('EXP ARRAY'!L$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R14)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P71)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P14)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P71)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P14)

EXP OUT

	A	B	C	D	E	F	G
15	8,000-10,000 lb.	='EXP ARRAY'!$D$12*UVMT!$R15	='EXP ARRAY'!$E$12*'ESAL ADJ'!$P15	=('EXP ARRAY'!$B$12*VMT!$R15)+('EXP ARRAY'!$C$12*'TRAF WGT'!$P72)	=('EXP ARRAY'!J$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R15)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P72)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P15)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P72)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P15)	=('EXP ARRAY'!K$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R15)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P72)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P15)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P72)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P15)	=('EXP ARRAY'!L$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R15)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P72)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P15)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P72)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P15)
16	10,000-12,000 lb.	='EXP ARRAY'!$D$12*UVMT!$R16	='EXP ARRAY'!$E$12*'ESAL ADJ'!$P16	=('EXP ARRAY'!$B$12*VMT!$R16)+('EXP ARRAY'!$C$12*'TRAF WGT'!$P73)	=('EXP ARRAY'!J$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R16)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P73)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P16)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P73)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P16)	=('EXP ARRAY'!K$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R16)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P73)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P16)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P73)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P16)	=('EXP ARRAY'!L$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R16)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P73)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P16)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P73)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P16)
17	12,000-14,000 lb.	='EXP ARRAY'!$D$12*UVMT!$R17	='EXP ARRAY'!$E$12*'ESAL ADJ'!$P17	=('EXP ARRAY'!$B$12*VMT!$R17)+('EXP ARRAY'!$C$12*'TRAF WGT'!$P74)	=('EXP ARRAY'!J$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R17)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P74)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P17)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P74)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P17)	=('EXP ARRAY'!K$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R17)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P74)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P17)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P74)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P17)	=('EXP ARRAY'!L$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R17)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P74)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P17)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P74)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P17)
18	14,000-16,000 lb.	='EXP ARRAY'!$D$12*UVMT!$R18	='EXP ARRAY'!$E$12*'ESAL ADJ'!$P18	=('EXP ARRAY'!$B$12*VMT!$R18)+('EXP ARRAY'!$C$12*'TRAF WGT'!$P75)	=('EXP ARRAY'!J$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R18)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P75)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P18)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P75)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P18)	=('EXP ARRAY'!K$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R18)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P75)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P18)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P75)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P18)	=('EXP ARRAY'!L$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R18)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P75)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P18)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P75)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P18)
19	16,000-18,000 lb.	='EXP ARRAY'!$D$12*UVMT!$R19	='EXP ARRAY'!$E$12*'ESAL ADJ'!$P19	=('EXP ARRAY'!$B$12*VMT!$R19)+('EXP ARRAY'!$C$12*'TRAF WGT'!$P76)	=('EXP ARRAY'!J$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R19)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P76)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P19)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P76)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P19)	=('EXP ARRAY'!K$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R19)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P76)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P19)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P76)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P19)	=('EXP ARRAY'!L$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R19)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P76)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P19)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P76)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P19)
20	18,000-20,000 lb.	='EXP ARRAY'!$D$12*UVMT!$R20	='EXP ARRAY'!$E$12*'ESAL ADJ'!$P20	=('EXP ARRAY'!$B$12*VMT!$R20)+('EXP ARRAY'!$C$12*'TRAF WGT'!$P77)	=('EXP ARRAY'!J$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R20)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P77)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P20)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P77)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P20)	=('EXP ARRAY'!K$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R20)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P77)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P20)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P77)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P20)	=('EXP ARRAY'!L$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R20)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P77)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P20)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P77)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P20)
21	20,000-22,000 lb.	='EXP ARRAY'!$D$12*UVMT!$R21	='EXP ARRAY'!$E$12*'ESAL ADJ'!$P21	=('EXP ARRAY'!$B$12*VMT!$R21)+('EXP ARRAY'!$C$12*'TRAF WGT'!$P78)	=('EXP ARRAY'!J$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R21)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P78)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P21)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P78)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P21)	=('EXP ARRAY'!K$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R21)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P78)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P21)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P78)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P21)	=('EXP ARRAY'!L$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R21)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P78)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P21)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P78)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P21)

EXP OUT

	A	B	C	D	E	F	G
22	22,000-24,000 lb.	='EXP ARRAY'!$D$12*UVMT!$R22	='EXP ARRAY'!$E$12*'ESAL ADJ'!$P22	=('EXP ARRAY'!$B$12*VMT!$R22)+('EXP ARRAY'!$C$12*'TRAF WGT'!$P79)	=('EXP ARRAY'!J$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R22)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P79)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P22)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P79)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P22)	=('EXP ARRAY'!K$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R22)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P79)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P22)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P79)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P22)	=('EXP ARRAY'!L$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R22)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P79)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P22)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P79)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P22)
23	24,000-26,000 lb.	='EXP ARRAY'!$D$12*UVMT!$R23	='EXP ARRAY'!$E$12*'ESAL ADJ'!$P23	=('EXP ARRAY'!$B$12*VMT!$R23)+('EXP ARRAY'!$C$12*'TRAF WGT'!$P80)	=('EXP ARRAY'!J$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R23)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P80)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P23)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P80)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P23)	=('EXP ARRAY'!K$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R23)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P80)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P23)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P80)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P23)	=('EXP ARRAY'!L$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R23)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P80)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P23)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P80)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P23)
24	26,000-28,000 lb.	='EXP ARRAY'!$D$12*UVMT!$R24	='EXP ARRAY'!$E$12*'ESAL ADJ'!$P24	=('EXP ARRAY'!$B$12*VMT!$R24)+('EXP ARRAY'!$C$12*'TRAF WGT'!$P81)	=('EXP ARRAY'!J$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R24)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P81)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P24)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P81)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P24)	=('EXP ARRAY'!K$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R24)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P81)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P24)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P81)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P24)	=('EXP ARRAY'!L$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R24)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P81)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P24)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P81)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P24)
25	28,000-30,000 lb.	='EXP ARRAY'!$D$12*UVMT!$R25	='EXP ARRAY'!$E$12*'ESAL ADJ'!$P25	=('EXP ARRAY'!$B$12*VMT!$R25)+('EXP ARRAY'!$C$12*'TRAF WGT'!$P82)	=('EXP ARRAY'!J$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R25)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P82)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P25)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P82)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P25)	=('EXP ARRAY'!K$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R25)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P82)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P25)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P82)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P25)	=('EXP ARRAY'!L$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R25)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P82)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P25)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P82)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P25)
26	30,000-32,000 lb.	='EXP ARRAY'!$D$12*UVMT!$R26	='EXP ARRAY'!$E$12*'ESAL ADJ'!$P26	=('EXP ARRAY'!$B$12*VMT!$R26)+('EXP ARRAY'!$C$12*'TRAF WGT'!$P83)	=('EXP ARRAY'!J$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R26)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P83)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P26)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P83)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P26)	=('EXP ARRAY'!K$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R26)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P83)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P26)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P83)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P26)	=('EXP ARRAY'!L$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R26)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P83)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P26)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P83)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P26)
27	32,000-36,000 lb.	='EXP ARRAY'!$D$12*UVMT!$R27	='EXP ARRAY'!$E$12*'ESAL ADJ'!$P27	=('EXP ARRAY'!$B$12*VMT!$R27)+('EXP ARRAY'!$C$12*'TRAF WGT'!$P84)	=('EXP ARRAY'!J$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R27)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P84)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P27)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P84)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P27)	=('EXP ARRAY'!K$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R27)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P84)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P27)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P84)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P27)	=('EXP ARRAY'!L$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R27)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P84)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P27)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P84)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P27)
28	36,000-40,000 lb.	='EXP ARRAY'!$D$12*UVMT!$R28	='EXP ARRAY'!$E$12*'ESAL ADJ'!$P28	=('EXP ARRAY'!$B$12*VMT!$R28)+('EXP ARRAY'!$C$12*'TRAF WGT'!$P85)	=('EXP ARRAY'!J$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R28)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P85)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P28)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P85)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P28)	=('EXP ARRAY'!K$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R28)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P85)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P28)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P85)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P28)	=('EXP ARRAY'!L$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R28)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P85)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P28)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P85)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P28)

EXP OUT

	A	B	C	D	E	F	G
29	40,000-45,000 lb.	='EXP ARRAY'!$D$12*UVMT!$R29	='EXP ARRAY'!$E$12*'ESAL ADJ'!$P29	=('EXP ARRAY'!$B$12*VMT!$R29)+('EXP ARRAY'!$C$12*'TRAF WGT'!$P86)	=('EXP ARRAY'!J$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R29)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P86)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P29)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P86)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P29)	=('EXP ARRAY'!K$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R29)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P86)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P29)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P86)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P29)	=('EXP ARRAY'!L$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R29)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P86)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P29)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P86)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P29)
30	45,000-50,000 lb.	='EXP ARRAY'!$D$12*UVMT!$R30	='EXP ARRAY'!$E$12*'ESAL ADJ'!$P30	=('EXP ARRAY'!$B$12*VMT!$R30)+('EXP ARRAY'!$C$12*'TRAF WGT'!$P87)	=('EXP ARRAY'!J$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R30)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P87)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P30)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P87)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P30)	=('EXP ARRAY'!K$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R30)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P87)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P30)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P87)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P30)	=('EXP ARRAY'!L$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R30)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P87)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P30)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P87)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P30)
31	50,000-55,000 lb.	='EXP ARRAY'!$D$12*UVMT!$R31	='EXP ARRAY'!$E$12*'ESAL ADJ'!$P31	=('EXP ARRAY'!$B$12*VMT!$R31)+('EXP ARRAY'!$C$12*'TRAF WGT'!$P88)	=('EXP ARRAY'!J$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R31)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P88)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P31)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P88)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P31)	=('EXP ARRAY'!K$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R31)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P88)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P31)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P88)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P31)	=('EXP ARRAY'!L$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R31)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P88)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P31)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P88)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P31)
32	55,000-60,000 lb.	='EXP ARRAY'!$D$12*UVMT!$R32	='EXP ARRAY'!$E$12*'ESAL ADJ'!$P32	=('EXP ARRAY'!$B$12*VMT!$R32)+('EXP ARRAY'!$C$12*'TRAF WGT'!$P89)	=('EXP ARRAY'!J$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R32)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P89)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P32)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P89)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P32)	=('EXP ARRAY'!K$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R32)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P89)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P32)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P89)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P32)	=('EXP ARRAY'!L$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R32)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P89)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P32)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P89)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P32)
33	60,000-65,000 lb.	='EXP ARRAY'!$D$12*UVMT!$R33	='EXP ARRAY'!$E$12*'ESAL ADJ'!$P33	=('EXP ARRAY'!$B$12*VMT!$R33)+('EXP ARRAY'!$C$12*'TRAF WGT'!$P90)	=('EXP ARRAY'!J$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R33)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P90)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P33)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P90)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P33)	=('EXP ARRAY'!K$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R33)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P90)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P33)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P90)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P33)	=('EXP ARRAY'!L$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R33)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P90)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P33)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P90)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P33)
34	65,000-70,000 lb.	='EXP ARRAY'!$D$12*UVMT!$R34	='EXP ARRAY'!$E$12*'ESAL ADJ'!$P34	=('EXP ARRAY'!$B$12*VMT!$R34)+('EXP ARRAY'!$C$12*'TRAF WGT'!$P91)	=('EXP ARRAY'!J$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R34)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P91)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P34)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P91)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P34)	=('EXP ARRAY'!K$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R34)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P91)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P34)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P91)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P34)	=('EXP ARRAY'!L$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R34)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P91)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P34)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P91)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P34)
35	70,000-75,000 lb.	='EXP ARRAY'!$D$12*UVMT!$R35	='EXP ARRAY'!$E$12*'ESAL ADJ'!$P35	=('EXP ARRAY'!$B$12*VMT!$R35)+('EXP ARRAY'!$C$12*'TRAF WGT'!$P92)	=('EXP ARRAY'!J$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R35)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P92)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P35)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P92)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P35)	=('EXP ARRAY'!K$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R35)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P92)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P35)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P92)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P35)	=('EXP ARRAY'!L$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R35)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P92)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P35)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P92)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P35)

EXP OUT

	A	B	C	D	E	F	G
36	75,000-80,000 lb.	='EXP ARRAY'!$D$12*UVMT!$R36	='EXP ARRAY'!$E$12*'ESAL ADJ'!$P36	=('EXP ARRAY'!$B$12*VMT!$R36)+('EXP ARRAY'!$C$12*'TRAF WGT'!$P93)	=('EXP ARRAY'!J$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R36)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P93)+('EXP ARRAY'!J$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P36)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P93)+('EXP ARRAY'!M$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P36)	=('EXP ARRAY'!K$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R36)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P93)+('EXP ARRAY'!K$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P36)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P93)+('EXP ARRAY'!N$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P36)	=('EXP ARRAY'!L$12*('LOCAL ADJ'!$F$14-'LOCAL ADJ'!$F$5)*VMT!$R36)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$F$5*'RTRAF WGT'!$P93)+('EXP ARRAY'!L$12*'LOCAL ADJ'!$H$14*'ESAL ADJ'!$P36)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$E$14*'RTRAF WGT'!$P93)+('EXP ARRAY'!O$12*'LOCAL ADJ'!$G$14*'ESAL ADJ'!$P36)
37	Total	=SUM(B14:B36)	=SUM(C14:C36)	=SUM(D14:D36)	=SUM(E14:E36)	=SUM(F14:F36)	=SUM(G14:G36)

	H	I	J	K	L	M	N
1							
2							
3	**Federal**			**Totals**			
4	**Urban**	**Rural**	**Other**	**State**	**Local**	**Federal**	**All Sources**
5	='EXP ARRAY'!$G$12*UVMT!$R5	='EXP ARRAY'!$H$12*'ESAL ADJ'!$P5	=('EXP ARRAY'!$F$12*'TRAF WGT'!$P62)+('EXP ARRAY'!$I$12*VMT!$R5)	=SUM(B5:D5)	=SUM(E5:G5)	=SUM(H5:J5)	=SUM(K5:M5)
6	='EXP ARRAY'!$G$12*UVMT!$R6	='EXP ARRAY'!$H$12*'ESAL ADJ'!$P6	=('EXP ARRAY'!$F$12*'TRAF WGT'!$P63)+('EXP ARRAY'!$I$12*VMT!$R6)	=SUM(B6:D6)	=SUM(E6:G6)	=SUM(H6:J6)	=SUM(K6:M6)
7	='EXP ARRAY'!$G$12*UVMT!$R7	='EXP ARRAY'!$H$12*'ESAL ADJ'!$P7	=('EXP ARRAY'!$F$12*'TRAF WGT'!$P64)+('EXP ARRAY'!$I$12*VMT!$R7)	=SUM(B7:D7)	=SUM(E7:G7)	=SUM(H7:J7)	=SUM(K7:M7)
8	='EXP ARRAY'!$G$12*UVMT!$R8	='EXP ARRAY'!$H$12*'ESAL ADJ'!$P8	=('EXP ARRAY'!$F$12*'TRAF WGT'!$P65)+('EXP ARRAY'!$I$12*VMT!$R8)	=SUM(B8:D8)	=SUM(E8:G8)	=SUM(H8:J8)	=SUM(K8:M8)
9	='EXP ARRAY'!$G$12*UVMT!$R9	='EXP ARRAY'!$H$12*'ESAL ADJ'!$P9	=('EXP ARRAY'!$F$12*'TRAF WGT'!$P66)+('EXP ARRAY'!$I$12*VMT!$R9)	=SUM(B9:D9)	=SUM(E9:G9)	=SUM(H9:J9)	=SUM(K9:M9)
10	=SUM(H5:H9)	=SUM(I5:I9)	=SUM(J5:J9)	=SUM(K5:K9)	=SUM(L5:L9)	=SUM(M5:M9)	=SUM(N5:N9)
11							
12	**Federal**			**Totals**			
13	**Urban**	**Rural**	**Other**	**State**	**Local**	**Federal**	**All Sources**
14	='EXP ARRAY'!$G$12*UVMT!$R14	='EXP ARRAY'!$H$12*'ESAL ADJ'!$P14	=('EXP ARRAY'!$F$12*'TRAF WGT'!$P71)+('EXP ARRAY'!$I$12*VMT!$R14)	=SUM(B14:D14)	=SUM(E14:G14)	=SUM(H14:J14)	=SUM(K14:M14)
15	='EXP ARRAY'!$G$12*UVMT!$R15	='EXP ARRAY'!$H$12*'ESAL ADJ'!$P15	=('EXP ARRAY'!$F$12*'TRAF WGT'!$P72)+('EXP ARRAY'!$I$12*VMT!$R15)	=SUM(B15:D15)	=SUM(E15:G15)	=SUM(H15:J15)	=SUM(K15:M15)
16	='EXP ARRAY'!$G$12*UVMT!$R16	='EXP ARRAY'!$H$12*'ESAL ADJ'!$P16	=('EXP ARRAY'!$F$12*'TRAF WGT'!$P73)+('EXP ARRAY'!$I$12*VMT!$R16)	=SUM(B16:D16)	=SUM(E16:G16)	=SUM(H16:J16)	=SUM(K16:M16)
17	='EXP ARRAY'!$G$12*UVMT!$R17	='EXP ARRAY'!$H$12*'ESAL ADJ'!$P17	=('EXP ARRAY'!$F$12*'TRAF WGT'!$P74)+('EXP ARRAY'!$I$12*VMT!$R17)	=SUM(B17:D17)	=SUM(E17:G17)	=SUM(H17:J17)	=SUM(K17:M17)
18	='EXP ARRAY'!$G$12*UVMT!$R18	='EXP ARRAY'!$H$12*'ESAL ADJ'!$P18	=('EXP ARRAY'!$F$12*'TRAF WGT'!$P75)+('EXP ARRAY'!$I$12*VMT!$R18)	=SUM(B18:D18)	=SUM(E18:G18)	=SUM(H18:J18)	=SUM(K18:M18)
19	='EXP ARRAY'!$G$12*UVMT!$R19	='EXP ARRAY'!$H$12*'ESAL ADJ'!$P19	=('EXP ARRAY'!$F$12*'TRAF WGT'!$P76)+('EXP ARRAY'!$I$12*VMT!$R19)	=SUM(B19:D19)	=SUM(E19:G19)	=SUM(H19:J19)	=SUM(K19:M19)
20	='EXP ARRAY'!$G$12*UVMT!$R20	='EXP ARRAY'!$H$12*'ESAL ADJ'!$P20	=('EXP ARRAY'!$F$12*'TRAF WGT'!$P77)+('EXP ARRAY'!$I$12*VMT!$R20)	=SUM(B20:D20)	=SUM(E20:G20)	=SUM(H20:J20)	=SUM(K20:M20)

EXP OUT

	H	I	J	K	L	M	N
21	='EXP ARRAY'!$G$12*UVMT!$R21	='EXP ARRAY'!$H$12*'ESAL ADJ'!$P21	=('EXP ARRAY'!$F$12*'TRAF WGT'!$P78)+('EXP ARRAY'!$I$12*VMT!$R21)	=SUM(B21:D21)	=SUM(E21:G21)	=SUM(H21:J21)	=SUM(K21:M21)
22	='EXP ARRAY'!$G$12*UVMT!$R22	='EXP ARRAY'!$H$12*'ESAL ADJ'!$P22	=('EXP ARRAY'!$F$12*'TRAF WGT'!$P79)+('EXP ARRAY'!$I$12*VMT!$R22)	=SUM(B22:D22)	=SUM(E22:G22)	=SUM(H22:J22)	=SUM(K22:M22)
23	='EXP ARRAY'!$G$12*UVMT!$R23	='EXP ARRAY'!$H$12*'ESAL ADJ'!$P23	=('EXP ARRAY'!$F$12*'TRAF WGT'!$P80)+('EXP ARRAY'!$I$12*VMT!$R23)	=SUM(B23:D23)	=SUM(E23:G23)	=SUM(H23:J23)	=SUM(K23:M23)
24	='EXP ARRAY'!$G$12*UVMT!$R24	='EXP ARRAY'!$H$12*'ESAL ADJ'!$P24	=('EXP ARRAY'!$F$12*'TRAF WGT'!$P81)+('EXP ARRAY'!$I$12*VMT!$R24)	=SUM(B24:D24)	=SUM(E24:G24)	=SUM(H24:J24)	=SUM(K24:M24)
25	='EXP ARRAY'!$G$12*UVMT!$R25	='EXP ARRAY'!$H$12*'ESAL ADJ'!$P25	=('EXP ARRAY'!$F$12*'TRAF WGT'!$P82)+('EXP ARRAY'!$I$12*VMT!$R25)	=SUM(B25:D25)	=SUM(E25:G25)	=SUM(H25:J25)	=SUM(K25:M25)
26	='EXP ARRAY'!$G$12*UVMT!$R26	='EXP ARRAY'!$H$12*'ESAL ADJ'!$P26	=('EXP ARRAY'!$F$12*'TRAF WGT'!$P83)+('EXP ARRAY'!$I$12*VMT!$R26)	=SUM(B26:D26)	=SUM(E26:G26)	=SUM(H26:J26)	=SUM(K26:M26)
27	='EXP ARRAY'!$G$12*UVMT!$R27	='EXP ARRAY'!$H$12*'ESAL ADJ'!$P27	=('EXP ARRAY'!$F$12*'TRAF WGT'!$P84)+('EXP ARRAY'!$I$12*VMT!$R27)	=SUM(B27:D27)	=SUM(E27:G27)	=SUM(H27:J27)	=SUM(K27:M27)
28	='EXP ARRAY'!$G$12*UVMT!$R28	='EXP ARRAY'!$H$12*'ESAL ADJ'!$P28	=('EXP ARRAY'!$F$12*'TRAF WGT'!$P85)+('EXP ARRAY'!$I$12*VMT!$R28)	=SUM(B28:D28)	=SUM(E28:G28)	=SUM(H28:J28)	=SUM(K28:M28)
29	='EXP ARRAY'!$G$12*UVMT!$R29	='EXP ARRAY'!$H$12*'ESAL ADJ'!$P29	=('EXP ARRAY'!$F$12*'TRAF WGT'!$P86)+('EXP ARRAY'!$I$12*VMT!$R29)	=SUM(B29:D29)	=SUM(E29:G29)	=SUM(H29:J29)	=SUM(K29:M29)
30	='EXP ARRAY'!$G$12*UVMT!$R30	='EXP ARRAY'!$H$12*'ESAL ADJ'!$P30	=('EXP ARRAY'!$F$12*'TRAF WGT'!$P87)+('EXP ARRAY'!$I$12*VMT!$R30)	=SUM(B30:D30)	=SUM(E30:G30)	=SUM(H30:J30)	=SUM(K30:M30)
31	='EXP ARRAY'!$G$12*UVMT!$R31	='EXP ARRAY'!$H$12*'ESAL ADJ'!$P31	=('EXP ARRAY'!$F$12*'TRAF WGT'!$P88)+('EXP ARRAY'!$I$12*VMT!$R31)	=SUM(B31:D31)	=SUM(E31:G31)	=SUM(H31:J31)	=SUM(K31:M31)
32	='EXP ARRAY'!$G$12*UVMT!$R32	='EXP ARRAY'!$H$12*'ESAL ADJ'!$P32	=('EXP ARRAY'!$F$12*'TRAF WGT'!$P89)+('EXP ARRAY'!$I$12*VMT!$R32)	=SUM(B32:D32)	=SUM(E32:G32)	=SUM(H32:J32)	=SUM(K32:M32)
33	='EXP ARRAY'!$G$12*UVMT!$R33	='EXP ARRAY'!$H$12*'ESAL ADJ'!$P33	=('EXP ARRAY'!$F$12*'TRAF WGT'!$P90)+('EXP ARRAY'!$I$12*VMT!$R33)	=SUM(B33:D33)	=SUM(E33:G33)	=SUM(H33:J33)	=SUM(K33:M33)
34	='EXP ARRAY'!$G$12*UVMT!$R34	='EXP ARRAY'!$H$12*'ESAL ADJ'!$P34	=('EXP ARRAY'!$F$12*'TRAF WGT'!$P91)+('EXP ARRAY'!$I$12*VMT!$R34)	=SUM(B34:D34)	=SUM(E34:G34)	=SUM(H34:J34)	=SUM(K34:M34)
35	='EXP ARRAY'!$G$12*UVMT!$R35	='EXP ARRAY'!$H$12*'ESAL ADJ'!$P35	=('EXP ARRAY'!$F$12*'TRAF WGT'!$P92)+('EXP ARRAY'!$I$12*VMT!$R35)	=SUM(B35:D35)	=SUM(E35:G35)	=SUM(H35:J35)	=SUM(K35:M35)
36	='EXP ARRAY'!$G$12*UVMT!$R36	='EXP ARRAY'!$H$12*'ESAL ADJ'!$P36	=('EXP ARRAY'!$F$12*'TRAF WGT'!$P93)+('EXP ARRAY'!$I$12*VMT!$R36)	=SUM(B36:D36)	=SUM(E36:G36)	=SUM(H36:J36)	=SUM(K36:M36)
37	=SUM(H14:H36)	=SUM(I14:I36)	=SUM(J14:J36)	=SUM(K14:K36)	=SUM(L14:L36)	=SUM(M14:M36)	=SUM(N14:N36)

REV OUT

	A	B	C	D	E	F	G	H	I
1	**Average Annual Revenues,**		**='REV IN'!B2**	**to**	**='REV IN'!B3**				
2	(Thousands of Dollars)								
3	**Vehicle**	**State Rev**							**Subtotal**
4		**Gas Tax**	**Diesel Tax**	**Vehicle License Tax**	**Regist. & Weight Fees**	**Motor Carrier**	**Other (Com)**	**Other (Trk)**	
5	Autos	='REV IN'!$J$5*'FUEL ADJ'!J2	0	='REV IN'!$J$8*(SUM('VLT ADJ'!$D$31:$D$32)*(REG!V26/SUM(REG!$V$26:$W$26)))	=('REV IN'!$J$24*('FEE ADJ'!L$25/'FEE ADJ'!$U$25))+(SUM('REV IN'!$J$25,'REV IN'!$J$27)*('FEE ADJ'!L$51/'FEE ADJ'!U$51))	='REV IN'!$J$10*('FEE ADJ'!L$77/'FEE ADJ'!$U$77)	='REV IN'!$J$30*REG!V$26	='REV IN'!$J$31*REG!O$54	=SUM(B5:H5)
6	Pick-ups and SUVs	='REV IN'!$J$5*'FUEL ADJ'!J3	0	='REV IN'!$J$8*(SUM('VLT ADJ'!$D$31:$D$32)*(REG!W26/SUM(REG!$V$26:$W$26)))	=('REV IN'!$J$24*('FEE ADJ'!M$25/'FEE ADJ'!$U$25))+(SUM('REV IN'!$J$25,'REV IN'!$J$27)*('FEE ADJ'!M$51/'FEE ADJ'!U$51))	='REV IN'!$J$10*('FEE ADJ'!M$77/'FEE ADJ'!$U$77)	='REV IN'!$J$30*REG!W$26	='REV IN'!$J$31*REG!P$54	=SUM(B6:H6)
7	Buses	0	='REV IN'!$J$6*'FUEL ADJ'!J4	='REV IN'!$J$8*'VLT ADJ'!$D$33	=('REV IN'!$J$24*('FEE ADJ'!R$25/'FEE ADJ'!$U$25))+(SUM('REV IN'!$J$25,'REV IN'!$J$27)*('FEE ADJ'!R$51/'FEE ADJ'!U$51))	='REV IN'!$J$10*('FEE ADJ'!R$77/'FEE ADJ'!$U$77)	='REV IN'!$J$30*REG!X$26	='REV IN'!$J$31*REG!Q$54	=SUM(B7:H7)
8	Single Unit trucks	0	='REV IN'!$J$6*'FUEL ADJ'!J5	='REV IN'!$J$8*('VLT ADJ'!$D$35*'TRK VAL'!Z26)	=('REV IN'!$J$24*('FEE ADJ'!S$25/'FEE ADJ'!$U$25))+(SUM('REV IN'!$J$25,'REV IN'!$J$27)*('FEE ADJ'!S$51/'FEE ADJ'!U$51))	='REV IN'!$J$10*('FEE ADJ'!S$77/'FEE ADJ'!$U$77)	='REV IN'!$J$30*REG!Y$26	='REV IN'!$J$31*REG!R$54	=SUM(B8:H8)
9	Combination trucks	0	='REV IN'!$J$6*'FUEL ADJ'!J6	=('REV IN'!$J$8*('VLT ADJ'!$D$35*'TRK VAL'!AA26))+('REV IN'!$J$8*'VLT ADJ'!$D$36)	=('REV IN'!$J$24*('FEE ADJ'!T$25/'FEE ADJ'!$U$25))+(SUM('REV IN'!$J$25,'REV IN'!$J$27)*('FEE ADJ'!T$51/'FEE ADJ'!U$51))+'REV IN'!J26	='REV IN'!$J$10*('FEE ADJ'!T$77/'FEE ADJ'!$U$77)	='REV IN'!$J$30*REG!Z$26	='REV IN'!$J$31*REG!S$54	=SUM(B9:H9)
10	**Total**	**=SUM(B5:B9)**	**=SUM(C5:C9)**	**=SUM(D5:D9)**	**=SUM(E5:E9)**	**=SUM(F5:F9)**	**=SUM(G5:G9)**	**=SUM(H5:H9)**	**=SUM(I5:I9)**
11									
12	**Weight**	**State Rev**							**Subtotal**
13		**Gas Tax**	**Diesel Tax**	**Vehicle License Tax**	**Regist. & Weight Fees**	**Motor Carrier**	**Other (Com)**	**Other (Trk)**	
14	0 - 8,000 lb.	='REV IN'!$J$5*'FUEL ADJ'!J10	='REV IN'!$J$6*'FUEL ADJ'!J36	=('REV IN'!$J$8*(('VLT ADJ'!$D$31*REG!I3)+('VLT ADJ'!$D$32*REG!J3)+('VLT ADJ'!$D$33*REG!K3)+('VLT ADJ'!$D$35*(SUM(REG!$Y3:$Z3)/SUM(REG!$Y$26:$Z$26))+('VLT ADJ'!$D$36*(REG!Z3/SUM(REG!$Z$3:$Z$25))))))	=('REV IN'!$J$24*'FEE ADJ'!V2)+(SUM('REV IN'!$J$25,'REV IN'!$J$27)*'FEE ADJ'!V28)+('REV IN'!$J$26*('FEE ADJ'!T54/'FEE ADJ'!$T$77))	='REV IN'!$J$10*'FEE ADJ'!V54	='REV IN'!$J$30*REG!AA3	='REV IN'!$J$31*REG!T31	=SUM(B14:H14)
15	8,000-10,000 lb.	='REV IN'!$J$5*'FUEL ADJ'!J11	='REV IN'!$J$6*'FUEL ADJ'!J37	=('REV IN'!$J$8*(('VLT ADJ'!$D$31*REG!I4)+('VLT ADJ'!$D$32*REG!J4)+('VLT ADJ'!$D$33*REG!K4)+('VLT ADJ'!$D$35*(SUM(REG!$Y4:$Z4)/SUM(REG!$Y$26:$Z$26))+('VLT ADJ'!$D$36*(REG!Z4/SUM(REG!$Z$3:$Z$25))))))	=('REV IN'!$J$24*'FEE ADJ'!V3)+(SUM('REV IN'!$J$25,'REV IN'!$J$27)*'FEE ADJ'!V29)+('REV IN'!$J$26*('FEE ADJ'!T55/'FEE ADJ'!$T$77))	='REV IN'!$J$10*'FEE ADJ'!V55	='REV IN'!$J$30*REG!AA4	='REV IN'!$J$31*REG!T32	=SUM(B15:H15)
16	10,000-12,000 lb.	='REV IN'!$J$5*'FUEL ADJ'!J12	='REV IN'!$J$6*'FUEL ADJ'!J38	=('REV IN'!$J$8*(('VLT ADJ'!$D$31*REG!I5)+('VLT ADJ'!$D$32*REG!J5)+('VLT ADJ'!$D$33*REG!K5)+('VLT ADJ'!$D$35*(SUM(REG!$Y5:$Z5)/SUM(REG!$Y$26:$Z$26))+('VLT ADJ'!$D$36*(REG!Z5/SUM(REG!$Z$3:$Z$25))))))	=('REV IN'!$J$24*'FEE ADJ'!V4)+(SUM('REV IN'!$J$25,'REV IN'!$J$27)*'FEE ADJ'!V30)+('REV IN'!$J$26*('FEE ADJ'!T56/'FEE ADJ'!$T$77))	='REV IN'!$J$10*'FEE ADJ'!V56	='REV IN'!$J$30*REG!AA5	='REV IN'!$J$31*REG!T33	=SUM(B16:H16)
17	12,000-14,000 lb.	='REV IN'!$J$5*'FUEL ADJ'!J13	='REV IN'!$J$6*'FUEL ADJ'!J39	=('REV IN'!$J$8*(('VLT ADJ'!$D$31*REG!I6)+('VLT ADJ'!$D$32*REG!J6)+('VLT ADJ'!$D$33*REG!K6)+('VLT ADJ'!$D$35*(SUM(REG!$Y6:$Z6)/SUM(REG!$Y$26:$Z$26))+('VLT ADJ'!$D$36*(REG!Z6/SUM(REG!$Z$3:$Z$25))))))	=('REV IN'!$J$24*'FEE ADJ'!V5)+(SUM('REV IN'!$J$25,'REV IN'!$J$27)*'FEE ADJ'!V31)+('REV IN'!$J$26*('FEE ADJ'!T57/'FEE ADJ'!$T$77))	='REV IN'!$J$10*'FEE ADJ'!V57	='REV IN'!$J$30*REG!AA6	='REV IN'!$J$31*REG!T34	=SUM(B17:H17)
18	14,000-16,000 lb.	='REV IN'!$J$5*'FUEL ADJ'!J14	='REV IN'!$J$6*'FUEL ADJ'!J40	=('REV IN'!$J$8*(('VLT ADJ'!$D$31*REG!I7)+('VLT ADJ'!$D$32*REG!J7)+('VLT ADJ'!$D$33*REG!K7)+('VLT ADJ'!$D$35*(SUM(REG!$Y7:$Z7)/SUM(REG!$Y$26:$Z$26))+('VLT ADJ'!$D$36*(REG!Z7/SUM(REG!$Z$3:$Z$25))))))	=('REV IN'!$J$24*'FEE ADJ'!V6)+(SUM('REV IN'!$J$25,'REV IN'!$J$27)*'FEE ADJ'!V32)+('REV IN'!$J$26*('FEE ADJ'!T58/'FEE ADJ'!$T$77))	='REV IN'!$J$10*'FEE ADJ'!V58	='REV IN'!$J$30*REG!AA7	='REV IN'!$J$31*REG!T35	=SUM(B18:H18)
19	16,000-18,000 lb.	='REV IN'!$J$5*'FUEL ADJ'!J15	='REV IN'!$J$6*'FUEL ADJ'!J41	=('REV IN'!$J$8*(('VLT ADJ'!$D$31*REG!I8)+('VLT ADJ'!$D$32*REG!J8)+('VLT ADJ'!$D$33*REG!K8)+('VLT ADJ'!$D$35*(SUM(REG!$Y8:$Z8)/SUM(REG!$Y$26:$Z$26))+('VLT ADJ'!$D$36*(REG!Z8/SUM(REG!$Z$3:$Z$25))))))	=('REV IN'!$J$24*'FEE ADJ'!V7)+(SUM('REV IN'!$J$25,'REV IN'!$J$27)*'FEE ADJ'!V33)+('REV IN'!$J$26*('FEE ADJ'!T59/'FEE ADJ'!$T$77))	='REV IN'!$J$10*'FEE ADJ'!V59	='REV IN'!$J$30*REG!AA8	='REV IN'!$J$31*REG!T36	=SUM(B19:H19)

REV OUT

	A	B	C	D	E	F	G	H	I
20	18,000-20,000 lb.	='REV IN'!$J$5*'FUEL ADJ'!J16	='REV IN'!$J$6*'FUEL ADJ'!J42	=('REV IN'!$J$8*(('VLT ADJ'!$D$31*REG!I9)+('VLT ADJ'!$D$32*REG!J9)+('VLT ADJ'!$D$33*REG!K9)+('VLT ADJ'!$D$35*(SUM(REG!$Y9:$Z9)/SUM(REG!$Y$26:$Z$26))+('VLT ADJ'!$D$36*(REG!Z9/SUM(REG!$Z$3:$Z$25))))))	=('REV IN'!$J$24*'FEE ADJ'!V8)+(SUM('REV IN'!$J$25,'REV IN'!$J$27)*'FEE ADJ'!V34)+('REV IN'!$J$26*('FEE ADJ'!T60/'FEE ADJ'!$T$77))	='REV IN'!$J$10*'FEE ADJ'!V60	='REV IN'!$J$30*REG!AA9	='REV IN'!$J$31*REG!T37	=SUM(B20:H20)
21	20,000-22,000 lb.	='REV IN'!$J$5*'FUEL ADJ'!J17	='REV IN'!$J$6*'FUEL ADJ'!J43	=('REV IN'!$J$8*(('VLT ADJ'!$D$31*REG!I10)+('VLT ADJ'!$D$32*REG!J10)+('VLT ADJ'!$D$33*REG!K10)+('VLT ADJ'!$D$35*(SUM(REG!$Y10:$Z10)/SUM(REG!$Y$26:$Z$26))+('VLT ADJ'!$D$36*(REG!Z10/SUM(REG!$Z$3:$Z$25))))))	=('REV IN'!$J$24*'FEE ADJ'!V9)+(SUM('REV IN'!$J$25,'REV IN'!$J$27)*'FEE ADJ'!V35)+('REV IN'!$J$26*('FEE ADJ'!T61/'FEE ADJ'!$T$77))	='REV IN'!$J$10*'FEE ADJ'!V61	='REV IN'!$J$30*REG!AA10	='REV IN'!$J$31*REG!T38	=SUM(B21:H21)
22	22,000-24,000 lb.	='REV IN'!$J$5*'FUEL ADJ'!J18	='REV IN'!$J$6*'FUEL ADJ'!J44	=('REV IN'!$J$8*(('VLT ADJ'!$D$31*REG!I11)+('VLT ADJ'!$D$32*REG!J11)+('VLT ADJ'!$D$33*REG!K11)+('VLT ADJ'!$D$35*(SUM(REG!$Y11:$Z11)/SUM(REG!$Y$26:$Z$26))+('VLT ADJ'!$D$36*(REG!Z11/SUM(REG!$Z$3:$Z$25))))))	=('REV IN'!$J$24*'FEE ADJ'!V10)+(SUM('REV IN'!$J$25,'REV IN'!$J$27)*'FEE ADJ'!V36)+('REV IN'!$J$26*('FEE ADJ'!T62/'FEE ADJ'!$T$77))	='REV IN'!$J$10*'FEE ADJ'!V62	='REV IN'!$J$30*REG!AA11	='REV IN'!$J$31*REG!T39	=SUM(B22:H22)
23	24,000-26,000 lb.	='REV IN'!$J$5*'FUEL ADJ'!J19	='REV IN'!$J$6*'FUEL ADJ'!J45	=('REV IN'!$J$8*(('VLT ADJ'!$D$31*REG!I12)+('VLT ADJ'!$D$32*REG!J12)+('VLT ADJ'!$D$33*REG!K12)+('VLT ADJ'!$D$35*(SUM(REG!$Y12:$Z12)/SUM(REG!$Y$26:$Z$26))+('VLT ADJ'!$D$36*(REG!Z12/SUM(REG!$Z$3:$Z$25))))))	=('REV IN'!$J$24*'FEE ADJ'!V11)+(SUM('REV IN'!$J$25,'REV IN'!$J$27)*'FEE ADJ'!V37)+('REV IN'!$J$26*('FEE ADJ'!T63/'FEE ADJ'!$T$77))	='REV IN'!$J$10*'FEE ADJ'!V63	='REV IN'!$J$30*REG!AA12	='REV IN'!$J$31*REG!T40	=SUM(B23:H23)
24	26,000-28,000 lb.	='REV IN'!$J$5*'FUEL ADJ'!J20	='REV IN'!$J$6*'FUEL ADJ'!J46	=('REV IN'!$J$8*(('VLT ADJ'!$D$31*REG!I13)+('VLT ADJ'!$D$32*REG!J13)+('VLT ADJ'!$D$33*REG!K13)+('VLT ADJ'!$D$35*(SUM(REG!$Y13:$Z13)/SUM(REG!$Y$26:$Z$26))+('VLT ADJ'!$D$36*(REG!Z13/SUM(REG!$Z$3:$Z$25))))))	=('REV IN'!$J$24*'FEE ADJ'!V12)+(SUM('REV IN'!$J$25,'REV IN'!$J$27)*'FEE ADJ'!V38)+('REV IN'!$J$26*('FEE ADJ'!T64/'FEE ADJ'!$T$77))	='REV IN'!$J$10*'FEE ADJ'!V64	='REV IN'!$J$30*REG!AA13	='REV IN'!$J$31*REG!T41	=SUM(B24:H24)
25	28,000-30,000 lb.	='REV IN'!$J$5*'FUEL ADJ'!J21	='REV IN'!$J$6*'FUEL ADJ'!J47	=('REV IN'!$J$8*(('VLT ADJ'!$D$31*REG!I14)+('VLT ADJ'!$D$32*REG!J14)+('VLT ADJ'!$D$33*REG!K14)+('VLT ADJ'!$D$35*(SUM(REG!$Y14:$Z14)/SUM(REG!$Y$26:$Z$26))+('VLT ADJ'!$D$36*(REG!Z14/SUM(REG!$Z$3:$Z$25))))))	=('REV IN'!$J$24*'FEE ADJ'!V13)+(SUM('REV IN'!$J$25,'REV IN'!$J$27)*'FEE ADJ'!V39)+('REV IN'!$J$26*('FEE ADJ'!T65/'FEE ADJ'!$T$77))	='REV IN'!$J$10*'FEE ADJ'!V65	='REV IN'!$J$30*REG!AA14	='REV IN'!$J$31*REG!T42	=SUM(B25:H25)
26	30,000-32,000 lb.	='REV IN'!$J$5*'FUEL ADJ'!J22	='REV IN'!$J$6*'FUEL ADJ'!J48	=('REV IN'!$J$8*(('VLT ADJ'!$D$31*REG!I15)+('VLT ADJ'!$D$32*REG!J15)+('VLT ADJ'!$D$33*REG!K15)+('VLT ADJ'!$D$35*(SUM(REG!$Y15:$Z15)/SUM(REG!$Y$26:$Z$26))+('VLT ADJ'!$D$36*(REG!Z15/SUM(REG!$Z$3:$Z$25))))))	=('REV IN'!$J$24*'FEE ADJ'!V14)+(SUM('REV IN'!$J$25,'REV IN'!$J$27)*'FEE ADJ'!V40)+('REV IN'!$J$26*('FEE ADJ'!T66/'FEE ADJ'!$T$77))	='REV IN'!$J$10*'FEE ADJ'!V66	='REV IN'!$J$30*REG!AA15	='REV IN'!$J$31*REG!T43	=SUM(B26:H26)
27	32,000-36,000 lb.	='REV IN'!$J$5*'FUEL ADJ'!J23	='REV IN'!$J$6*'FUEL ADJ'!J49	=('REV IN'!$J$8*(('VLT ADJ'!$D$31*REG!I16)+('VLT ADJ'!$D$32*REG!J16)+('VLT ADJ'!$D$33*REG!K16)+('VLT ADJ'!$D$35*(SUM(REG!$Y16:$Z16)/SUM(REG!$Y$26:$Z$26))+('VLT ADJ'!$D$36*(REG!Z16/SUM(REG!$Z$3:$Z$25))))))	=('REV IN'!$J$24*'FEE ADJ'!V15)+(SUM('REV IN'!$J$25,'REV IN'!$J$27)*'FEE ADJ'!V41)+('REV IN'!$J$26*('FEE ADJ'!T67/'FEE ADJ'!$T$77))	='REV IN'!$J$10*'FEE ADJ'!V67	='REV IN'!$J$30*REG!AA16	='REV IN'!$J$31*REG!T44	=SUM(B27:H27)
28	36,000-40,000 lb.	='REV IN'!$J$5*'FUEL ADJ'!J24	='REV IN'!$J$6*'FUEL ADJ'!J50	=('REV IN'!$J$8*(('VLT ADJ'!$D$31*REG!I17)+('VLT ADJ'!$D$32*REG!J17)+('VLT ADJ'!$D$33*REG!K17)+('VLT ADJ'!$D$35*(SUM(REG!$Y17:$Z17)/SUM(REG!$Y$26:$Z$26))+('VLT ADJ'!$D$36*(REG!Z17/SUM(REG!$Z$3:$Z$25))))))	=('REV IN'!$J$24*'FEE ADJ'!V16)+(SUM('REV IN'!$J$25,'REV IN'!$J$27)*'FEE ADJ'!V42)+('REV IN'!$J$26*('FEE ADJ'!T68/'FEE ADJ'!$T$77))	='REV IN'!$J$10*'FEE ADJ'!V68	='REV IN'!$J$30*REG!AA17	='REV IN'!$J$31*REG!T45	=SUM(B28:H28)
29	40,000-45,000 lb.	='REV IN'!$J$5*'FUEL ADJ'!J25	='REV IN'!$J$6*'FUEL ADJ'!J51	=('REV IN'!$J$8*(('VLT ADJ'!$D$31*REG!I18)+('VLT ADJ'!$D$32*REG!J18)+('VLT ADJ'!$D$33*REG!K18)+('VLT ADJ'!$D$35*(SUM(REG!$Y18:$Z18)/SUM(REG!$Y$26:$Z$26))+('VLT ADJ'!$D$36*(REG!Z18/SUM(REG!$Z$3:$Z$25))))))	=('REV IN'!$J$24*'FEE ADJ'!V17)+(SUM('REV IN'!$J$25,'REV IN'!$J$27)*'FEE ADJ'!V43)+('REV IN'!$J$26*('FEE ADJ'!T69/'FEE ADJ'!$T$77))	='REV IN'!$J$10*'FEE ADJ'!V69	='REV IN'!$J$30*REG!AA18	='REV IN'!$J$31*REG!T46	=SUM(B29:H29)
30	45,000-50,000 lb.	='REV IN'!$J$5*'FUEL ADJ'!J26	='REV IN'!$J$6*'FUEL ADJ'!J52	=('REV IN'!$J$8*(('VLT ADJ'!$D$31*REG!I19)+('VLT ADJ'!$D$32*REG!J19)+('VLT ADJ'!$D$33*REG!K19)+('VLT ADJ'!$D$35*(SUM(REG!$Y19:$Z19)/SUM(REG!$Y$26:$Z$26))+('VLT ADJ'!$D$36*(REG!Z19/SUM(REG!$Z$3:$Z$25))))))	=('REV IN'!$J$24*'FEE ADJ'!V18)+(SUM('REV IN'!$J$25,'REV IN'!$J$27)*'FEE ADJ'!V44)+('REV IN'!$J$26*('FEE ADJ'!T70/'FEE ADJ'!$T$77))	='REV IN'!$J$10*'FEE ADJ'!V70	='REV IN'!$J$30*REG!AA19	='REV IN'!$J$31*REG!T47	=SUM(B30:H30)
31	50,000-55,000 lb.	='REV IN'!$J$5*'FUEL ADJ'!J27	='REV IN'!$J$6*'FUEL ADJ'!J53	=('REV IN'!$J$8*(('VLT ADJ'!$D$31*REG!I20)+('VLT ADJ'!$D$32*REG!J20)+('VLT ADJ'!$D$33*REG!K20)+('VLT ADJ'!$D$35*(SUM(REG!$Y20:$Z20)/SUM(REG!$Y$26:$Z$26))+('VLT ADJ'!$D$36*(REG!Z20/SUM(REG!$Z$3:$Z$25))))))	=('REV IN'!$J$24*'FEE ADJ'!V19)+(SUM('REV IN'!$J$25,'REV IN'!$J$27)*'FEE ADJ'!V45)+('REV IN'!$J$26*('FEE ADJ'!T71/'FEE ADJ'!$T$77))	='REV IN'!$J$10*'FEE ADJ'!V71	='REV IN'!$J$30*REG!AA20	='REV IN'!$J$31*REG!T48	=SUM(B31:H31)
32	55,000-60,000 lb.	='REV IN'!$J$5*'FUEL ADJ'!J28	='REV IN'!$J$6*'FUEL ADJ'!J54	=('REV IN'!$J$8*(('VLT ADJ'!$D$31*REG!I21)+('VLT ADJ'!$D$32*REG!J21)+('VLT ADJ'!$D$33*REG!K21)+('VLT ADJ'!$D$35*(SUM(REG!$Y21:$Z21)/SUM(REG!$Y$26:$Z$26))+('VLT ADJ'!$D$36*(REG!Z21/SUM(REG!$Z$3:$Z$25))))))	=('REV IN'!$J$24*'FEE ADJ'!V20)+(SUM('REV IN'!$J$25,'REV IN'!$J$27)*'FEE ADJ'!V46)+('REV IN'!$J$26*('FEE ADJ'!T72/'FEE ADJ'!$T$77))	='REV IN'!$J$10*'FEE ADJ'!V72	='REV IN'!$J$30*REG!AA21	='REV IN'!$J$31*REG!T49	=SUM(B32:H32)
33	60,000-65,000 lb.	='REV IN'!$J$5*'FUEL ADJ'!J29	='REV IN'!$J$6*'FUEL ADJ'!J55	=('REV IN'!$J$8*(('VLT ADJ'!$D$31*REG!I22)+('VLT ADJ'!$D$32*REG!J22)+('VLT ADJ'!$D$33*REG!K22)+('VLT ADJ'!$D$35*(SUM(REG!$Y22:$Z22)/SUM(REG!$Y$26:$Z$26))+('VLT ADJ'!$D$36*(REG!Z22/SUM(REG!$Z$3:$Z$25))))))	=('REV IN'!$J$24*'FEE ADJ'!V21)+(SUM('REV IN'!$J$25,'REV IN'!$J$27)*'FEE ADJ'!V47)+('REV IN'!$J$26*('FEE ADJ'!T73/'FEE ADJ'!$T$77))	='REV IN'!$J$10*'FEE ADJ'!V73	='REV IN'!$J$30*REG!AA22	='REV IN'!$J$31*REG!T50	=SUM(B33:H33)

REV OUT

	A	B	C	D	E	F	G	H	I
34	65,000-70,000 lb.	='REV IN'!$J$5*'FUEL ADJ'!J30	='REV IN'!$J$6*'FUEL ADJ'!J56	=('REV IN'!$J$8*(('VLT ADJ'!$D$31*REG!I23)+('VLT ADJ'!$D$32*REG!J23)+('VLT ADJ'!$D$33*REG!K23)+('VLT ADJ'!$D$35*(SUM(REG!$Y23:$Z23)/SUM(REG!$Y$26:$Z$26))+('VLT ADJ'!$D$36*(REG!Z23/SUM(REG!$Z$3:$Z$25))))))	=('REV IN'!$J$24*'FEE ADJ'!V22)+(SUM('REV IN'!$J$25,'REV IN'!$J$27)*'FEE ADJ'!V48)+('REV IN'!$J$26*('FEE ADJ'!T74/'FEE ADJ'!$T$77))	='REV IN'!$J$10*'FEE ADJ'!V74	='REV IN'!$J$30*REG!AA23	='REV IN'!$J$31*REG!T51	=SUM(B34:H34)
35	70,000-75,000 lb.	='REV IN'!$J$5*'FUEL ADJ'!J31	='REV IN'!$J$6*'FUEL ADJ'!J57	=('REV IN'!$J$8*(('VLT ADJ'!$D$31*REG!I24)+('VLT ADJ'!$D$32*REG!J24)+('VLT ADJ'!$D$33*REG!K24)+('VLT ADJ'!$D$35*(SUM(REG!$Y24:$Z24)/SUM(REG!$Y$26:$Z$26))+('VLT ADJ'!$D$36*(REG!Z24/SUM(REG!$Z$3:$Z$25))))))	=('REV IN'!$J$24*'FEE ADJ'!V23)+(SUM('REV IN'!$J$25,'REV IN'!$J$27)*'FEE ADJ'!V49)+('REV IN'!$J$26*('FEE ADJ'!T75/'FEE ADJ'!$T$77))	='REV IN'!$J$10*'FEE ADJ'!V75	='REV IN'!$J$30*REG!AA24	='REV IN'!$J$31*REG!T52	=SUM(B35:H35)
36	75,000-80,000 lb.	='REV IN'!$J$5*'FUEL ADJ'!J32	='REV IN'!$J$6*'FUEL ADJ'!J58	=('REV IN'!$J$8*(('VLT ADJ'!$D$31*REG!I25)+('VLT ADJ'!$D$32*REG!J25)+('VLT ADJ'!$D$33*REG!K25)+('VLT ADJ'!$D$35*(SUM(REG!$Y25:$Z25)/SUM(REG!$Y$26:$Z$26))+('VLT ADJ'!$D$36*(REG!Z25/SUM(REG!$Z$3:$Z$25))))))	=('REV IN'!$J$24*'FEE ADJ'!V24)+(SUM('REV IN'!$J$25,'REV IN'!$J$27)*'FEE ADJ'!V50)+('REV IN'!$J$26*('FEE ADJ'!T76/'FEE ADJ'!$T$77))	='REV IN'!$J$10*'FEE ADJ'!V76	='REV IN'!$J$30*REG!AA25	='REV IN'!$J$31*REG!T53	=SUM(B36:H36)
37	**Total**	**=SUM(B14:B36)**	**=SUM(C14:C36)**	**=SUM(D14:D36)**	**=SUM(E14:E36)**	**=SUM(F14:F36)**	**=SUM(G14:G36)**	**=SUM(H14:H36)**	**=SUM(I14:I36)**

	J	K	L	M	N	O	P
1							
2							
3	**Federal Revenues**					**Federal**	**Total**
4	**Gas Tax**	**Diesel Tax**	**Use Tax**	**Sales Tax**	**Tire Tax**		
5	=B5*('REV IN'!$B$11/'REV IN'!$B$7)	=C5*('REV IN'!$B$12/'REV IN'!$B$8)	='REV IN'!$J$35*0	='REV IN'!$J$34*0	='REV IN'!$J$36*0	=SUM(J5:N5)	=SUM(I5,O5)
6	=B6*('REV IN'!$B$11/'REV IN'!$B$7)	=C6*('REV IN'!$B$12/'REV IN'!$B$8)	='REV IN'!$J$35*0	='REV IN'!$J$34*0	='REV IN'!$J$36*0	=SUM(J6:N6)	=SUM(I6,O6)
7	=B7*('REV IN'!$B$11/'REV IN'!$B$7)	=C7*('REV IN'!$B$12/'REV IN'!$B$8)	='REV IN'!$J$35*0	='REV IN'!$J$34*0	='REV IN'!$J$36*0	=SUM(J7:N7)	=SUM(I7,O7)
8	=B8*('REV IN'!$B$11/'REV IN'!$B$7)	=C8*('REV IN'!$B$12/'REV IN'!$B$8)	='REV IN'!$J$35*'FED FEES'!AB9	='REV IN'!$J$34*'FED FEES'!$Q$27	='REV IN'!$J$36*SUM('FED FEES'!$B$28:$D$28)	=SUM(J8:N8)	=SUM(I8,O8)
9	=B9*('REV IN'!$B$11/'REV IN'!$B$7)	=C9*('REV IN'!$B$12/'REV IN'!$B$8)	='REV IN'!$J$35*'FED FEES'!AC9	='REV IN'!$J$34*'FED FEES'!$R$27	='REV IN'!$J$36*SUM('FED FEES'!$E$28:$J$28)	=SUM(J9:N9)	=SUM(I9,O9)
10	**=SUM(J5:J9)**	**=SUM(K5:K9)**	**=SUM(L5:L9)**	**=SUM(M5:M9)**	**=SUM(N5:N9)**	**=SUM(O5:O9)**	**=SUM(P5:P9)**
11							
12	**Federal Revenues**					**Subtotal**	**Total**
13	**Gas Tax**	**Diesel Tax**	**Use Tax**	**Sales Tax**	**Tire Tax**		
14	=B14*('REV IN'!$B$11/'REV IN'!$B$7)	=C14*('REV IN'!$B$12/'REV IN'!$B$8)	='REV IN'!$J$35*0	='REV IN'!$J$34*'FED FEES'!$S4	='REV IN'!$J$36*'FED FEES'!$L4	=SUM(J14:N14)	=SUM(I14,O14)
15	=B15*('REV IN'!$B$11/'REV IN'!$B$7)	=C15*('REV IN'!$B$12/'REV IN'!$B$8)	='REV IN'!$J$35*0	='REV IN'!$J$34*'FED FEES'!$S5	='REV IN'!$J$36*'FED FEES'!$L5	=SUM(J15:N15)	=SUM(I15,O15)
16	=B16*('REV IN'!$B$11/'REV IN'!$B$7)	=C16*('REV IN'!$B$12/'REV IN'!$B$8)	='REV IN'!$J$35*0	='REV IN'!$J$34*'FED FEES'!$S6	='REV IN'!$J$36*'FED FEES'!$L6	=SUM(J16:N16)	=SUM(I16,O16)
17	=B17*('REV IN'!$B$11/'REV IN'!$B$7)	=C17*('REV IN'!$B$12/'REV IN'!$B$8)	='REV IN'!$J$35*0	='REV IN'!$J$34*'FED FEES'!$S7	='REV IN'!$J$36*'FED FEES'!$L7	=SUM(J17:N17)	=SUM(I17,O17)
18	=B18*('REV IN'!$B$11/'REV IN'!$B$7)	=C18*('REV IN'!$B$12/'REV IN'!$B$8)	='REV IN'!$J$35*0	='REV IN'!$J$34*'FED FEES'!$S8	='REV IN'!$J$36*'FED FEES'!$L8	=SUM(J18:N18)	=SUM(I18,O18)
19	=B19*('REV IN'!$B$11/'REV IN'!$B$7)	=C19*('REV IN'!$B$12/'REV IN'!$B$8)	='REV IN'!$J$35*0	='REV IN'!$J$34*'FED FEES'!$S9	='REV IN'!$J$36*'FED FEES'!$L9	=SUM(J19:N19)	=SUM(I19,O19)
20	=B20*('REV IN'!$B$11/'REV IN'!$B$7)	=C20*('REV IN'!$B$12/'REV IN'!$B$8)	='REV IN'!$J$35*0	='REV IN'!$J$34*'FED FEES'!$S10	='REV IN'!$J$36*'FED FEES'!$L10	=SUM(J20:N20)	=SUM(I20,O20)

	J	K	L	M	N	O	P
21	=B21*('REV IN'!$B$11/'REV IN'!$B$7)	=C21*('REV IN'!$B$12/'REV IN'!$B$8)	='REV IN'!$J$35*0	='REV IN'!$J$34*'FED FEES'!$S11	='REV IN'!$J$36*'FED FEES'!$L11	=SUM(J21:N21)	=SUM(I21,O21)
22	=B22*('REV IN'!$B$11/'REV IN'!$B$7)	=C22*('REV IN'!$B$12/'REV IN'!$B$8)	='REV IN'!$J$35*0	='REV IN'!$J$34*'FED FEES'!$S12	='REV IN'!$J$36*'FED FEES'!$L12	=SUM(J22:N22)	=SUM(I22,O22)
23	=B23*('REV IN'!$B$11/'REV IN'!$B$7)	=C23*('REV IN'!$B$12/'REV IN'!$B$8)	='REV IN'!$J$35*0	='REV IN'!$J$34*'FED FEES'!$S13	='REV IN'!$J$36*'FED FEES'!$L13	=SUM(J23:N23)	=SUM(I23,O23)
24	=B24*('REV IN'!$B$11/'REV IN'!$B$7)	=C24*('REV IN'!$B$12/'REV IN'!$B$8)	='REV IN'!$J$35*0	='REV IN'!$J$34*'FED FEES'!$S14	='REV IN'!$J$36*'FED FEES'!$L14	=SUM(J24:N24)	=SUM(I24,O24)
25	=B25*('REV IN'!$B$11/'REV IN'!$B$7)	=C25*('REV IN'!$B$12/'REV IN'!$B$8)	='REV IN'!$J$35*0	='REV IN'!$J$34*'FED FEES'!$S15	='REV IN'!$J$36*'FED FEES'!$L15	=SUM(J25:N25)	=SUM(I25,O25)
26	=B26*('REV IN'!$B$11/'REV IN'!$B$7)	=C26*('REV IN'!$B$12/'REV IN'!$B$8)	='REV IN'!$J$35*0	='REV IN'!$J$34*'FED FEES'!$S16	='REV IN'!$J$36*'FED FEES'!$L16	=SUM(J26:N26)	=SUM(I26,O26)
27	=B27*('REV IN'!$B$11/'REV IN'!$B$7)	=C27*('REV IN'!$B$12/'REV IN'!$B$8)	='REV IN'!$J$35*0	='REV IN'!$J$34*'FED FEES'!$S17	='REV IN'!$J$36*'FED FEES'!$L17	=SUM(J27:N27)	=SUM(I27,O27)
28	=B28*('REV IN'!$B$11/'REV IN'!$B$7)	=C28*('REV IN'!$B$12/'REV IN'!$B$8)	='REV IN'!$J$35*0	='REV IN'!$J$34*'FED FEES'!$S18	='REV IN'!$J$36*'FED FEES'!$L18	=SUM(J28:N28)	=SUM(I28,O28)
29	=B29*('REV IN'!$B$11/'REV IN'!$B$7)	=C29*('REV IN'!$B$12/'REV IN'!$B$8)	='REV IN'!$J$35*0	='REV IN'!$J$34*'FED FEES'!$S19	='REV IN'!$J$36*'FED FEES'!$L19	=SUM(J29:N29)	=SUM(I29,O29)
30	=B30*('REV IN'!$B$11/'REV IN'!$B$7)	=C30*('REV IN'!$B$12/'REV IN'!$B$8)	='REV IN'!$J$35*0	='REV IN'!$J$34*'FED FEES'!$S20	='REV IN'!$J$36*'FED FEES'!$L20	=SUM(J30:N30)	=SUM(I30,O30)
31	=B31*('REV IN'!$B$11/'REV IN'!$B$7)	=C31*('REV IN'!$B$12/'REV IN'!$B$8)	='REV IN'!$J$35*0	='REV IN'!$J$34*'FED FEES'!$S21	='REV IN'!$J$36*'FED FEES'!$L21	=SUM(J31:N31)	=SUM(I31,O31)
32	=B32*('REV IN'!$B$11/'REV IN'!$B$7)	=C32*('REV IN'!$B$12/'REV IN'!$B$8)	='REV IN'!$J$35*SUM('FED FEES'!AB4:AC4)	='REV IN'!$J$34*'FED FEES'!$S22	='REV IN'!$J$36*'FED FEES'!$L22	=SUM(J32:N32)	=SUM(I32,O32)
33	=B33*('REV IN'!$B$11/'REV IN'!$B$7)	=C33*('REV IN'!$B$12/'REV IN'!$B$8)	='REV IN'!$J$35*SUM('FED FEES'!AB5:AC5)	='REV IN'!$J$34*'FED FEES'!$S23	='REV IN'!$J$36*'FED FEES'!$L23	=SUM(J33:N33)	=SUM(I33,O33)
34	=B34*('REV IN'!$B$11/'REV IN'!$B$7)	=C34*('REV IN'!$B$12/'REV IN'!$B$8)	='REV IN'!$J$35*SUM('FED FEES'!AB6:AC6)	='REV IN'!$J$34*'FED FEES'!$S24	='REV IN'!$J$36*'FED FEES'!$L24	=SUM(J34:N34)	=SUM(I34,O34)
35	=B35*('REV IN'!$B$11/'REV IN'!$B$7)	=C35*('REV IN'!$B$12/'REV IN'!$B$8)	='REV IN'!$J$35*SUM('FED FEES'!AB7:AC7)	='REV IN'!$J$34*'FED FEES'!$S25	='REV IN'!$J$36*'FED FEES'!$L25	=SUM(J35:N35)	=SUM(I35,O35)
36	=B36*('REV IN'!$B$11/'REV IN'!$B$7)	=C36*('REV IN'!$B$12/'REV IN'!$B$8)	='REV IN'!$J$35*SUM('FED FEES'!AB8:AC8)	='REV IN'!$J$34*'FED FEES'!$S26	='REV IN'!$J$36*'FED FEES'!$L26	=SUM(J36:N36)	=SUM(I36,O36)
37	**=SUM(J14:J36)**	**=SUM(K14:K36)**	**=SUM(L14:L36)**	**=SUM(M14:M36)**	**=SUM(N14:N36)**	**=SUM(O14:O36)**	**=SUM(P14:P36)**

RATIOS OUT

	A	B	C	D	E	F	G	H	I	J
1	**Average Annual Highway User Revenues, Costs and Equity Ratios**									
2	(Thousands of Dollars)									
3	**Vehicle**	**User Rev**			**Cost Responsibility**			**Ratios**		
4		**State**	**Federal**	**Total**	**State**	**Federal**	**Total**	**State**	**Federal**	**Total**
5	Autos	='REV OUT'!I5	='REV OUT'!O5	=SUM(B5:C5)	=SUM('EXP OUT'!B5:E5,'EXP OUT'!G5)	=SUM('EXP OUT'!F5,'EXP OUT'!H5:J5)	=SUM(E5:F5)	=B5/E5	=C5/F5	=D5/G5
6	Pick-ups and SUVs	='REV OUT'!I6	='REV OUT'!O6	=SUM(B6:C6)	=SUM('EXP OUT'!B6:E6,'EXP OUT'!G6)	=SUM('EXP OUT'!F6,'EXP OUT'!H6:J6)	=SUM(E6:F6)	=B6/E6	=C6/F6	=D6/G6
7	Buses	='REV OUT'!I7	='REV OUT'!O7	=SUM(B7:C7)	=SUM('EXP OUT'!B7:E7,'EXP OUT'!G7)	=SUM('EXP OUT'!F7,'EXP OUT'!H7:J7)	=SUM(E7:F7)	=B7/E7	=C7/F7	=D7/G7
8	Single Unit trucks	='REV OUT'!I8	='REV OUT'!O8	=SUM(B8:C8)	=SUM('EXP OUT'!B8:E8,'EXP OUT'!G8)	=SUM('EXP OUT'!F8,'EXP OUT'!H8:J8)	=SUM(E8:F8)	=B8/E8	=C8/F8	=D8/G8
9	Combinatio n trucks	='REV OUT'!I9	='REV OUT'!O9	=SUM(B9:C9)	=SUM('EXP OUT'!B9:E9,'EXP OUT'!G9)	=SUM('EXP OUT'!F9,'EXP OUT'!H9:J9)	=SUM(E9:F9)	=B9/E9	=C9/F9	=D9/G9
10	Total	=SUM(B5:B9)	=SUM(C5:C9)	=SUM(D5:D9)	=SUM(E5:E9)	=SUM(F5:F9)	=SUM(G5:G9)	=B10/E10	=C10/F10	=D10/G10
11										
12	**Weight**	**User Rev**			**Cost Responsibility**			**Ratios**		
13		**State**	**Federal**	**Total**	**State**	**Federal**	**Total**	**State**	**Federal**	**Total**
14	0 - 8,000 lb.	='REV OUT'!I14	='REV OUT'!O14	=SUM(B14:C1 4)	=SUM('EXP OUT'!B14:E14,'EXP OUT'!G14)	=SUM('EXP OUT'!F14,'EXP OUT'!H14:J14)	=SUM(E14:F14)	=B14/E14	=C14/F14	=D14/G14
15	8,000-10,000 lb.	='REV OUT'!I15	='REV OUT'!O15	=SUM(B15:C1 5)	=SUM('EXP OUT'!B15:E15,'EXP OUT'!G15)	=SUM('EXP OUT'!F15,'EXP OUT'!H15:J15)	=SUM(E15:F15)	=B15/E15	=C15/F15	=D15/G15
16	10,000-12,000 lb.	='REV OUT'!I16	='REV OUT'!O16	=SUM(B16:C1 6)	=SUM('EXP OUT'!B16:E16,'EXP OUT'!G16)	=SUM('EXP OUT'!F16,'EXP OUT'!H16:J16)	=SUM(E16:F16)	=B16/E16	=C16/F16	=D16/G16
17	12,000-14,000 lb.	='REV OUT'!I17	='REV OUT'!O17	=SUM(B17:C1 7)	=SUM('EXP OUT'!B17:E17,'EXP OUT'!G17)	=SUM('EXP OUT'!F17,'EXP OUT'!H17:J17)	=SUM(E17:F17)	=B17/E17	=C17/F17	=D17/G17
18	14,000-16,000 lb.	='REV OUT'!I18	='REV OUT'!O18	=SUM(B18:C1 8)	=SUM('EXP OUT'!B18:E18,'EXP OUT'!G18)	=SUM('EXP OUT'!F18,'EXP OUT'!H18:J18)	=SUM(E18:F18)	=B18/E18	=C18/F18	=D18/G18
19	16,000-18,000 lb.	='REV OUT'!I19	='REV OUT'!O19	=SUM(B19:C1 9)	=SUM('EXP OUT'!B19:E19,'EXP OUT'!G19)	=SUM('EXP OUT'!F19,'EXP OUT'!H19:J19)	=SUM(E19:F19)	=B19/E19	=C19/F19	=D19/G19
20	18,000-20,000 lb.	='REV OUT'!I20	='REV OUT'!O20	=SUM(B20:C2 0)	=SUM('EXP OUT'!B20:E20,'EXP OUT'!G20)	=SUM('EXP OUT'!F20,'EXP OUT'!H20:J20)	=SUM(E20:F20)	=B20/E20	=C20/F20	=D20/G20
21	20,000-22,000 lb.	='REV OUT'!I21	='REV OUT'!O21	=SUM(B21:C2 1)	=SUM('EXP OUT'!B21:E21,'EXP OUT'!G21)	=SUM('EXP OUT'!F21,'EXP OUT'!H21:J21)	=SUM(E21:F21)	=B21/E21	=C21/F21	=D21/G21
22	22,000-24,000 lb.	='REV OUT'!I22	='REV OUT'!O22	=SUM(B22:C2 2)	=SUM('EXP OUT'!B22:E22,'EXP OUT'!G22)	=SUM('EXP OUT'!F22,'EXP OUT'!H22:J22)	=SUM(E22:F22)	=B22/E22	=C22/F22	=D22/G22
23	24,000-26,000 lb.	='REV OUT'!I23	='REV OUT'!O23	=SUM(B23:C2 3)	=SUM('EXP OUT'!B23:E23,'EXP OUT'!G23)	=SUM('EXP OUT'!F23,'EXP OUT'!H23:J23)	=SUM(E23:F23)	=B23/E23	=C23/F23	=D23/G23
24	26,000-28,000 lb.	='REV OUT'!I24	='REV OUT'!O24	=SUM(B24:C2 4)	=SUM('EXP OUT'!B24:E24,'EXP OUT'!G24)	=SUM('EXP OUT'!F24,'EXP OUT'!H24:J24)	=SUM(E24:F24)	=B24/E24	=C24/F24	=D24/G24
25	28,000-30,000 lb.	='REV OUT'!I25	='REV OUT'!O25	=SUM(B25:C2 5)	=SUM('EXP OUT'!B25:E25,'EXP OUT'!G25)	=SUM('EXP OUT'!F25,'EXP OUT'!H25:J25)	=SUM(E25:F25)	=B25/E25	=C25/F25	=D25/G25
26	30,000-32,000 lb.	='REV OUT'!I26	='REV OUT'!O26	=SUM(B26:C2 6)	=SUM('EXP OUT'!B26:E26,'EXP OUT'!G26)	=SUM('EXP OUT'!F26,'EXP OUT'!H26:J26)	=SUM(E26:F26)	=B26/E26	=C26/F26	=D26/G26
27	32,000-36,000 lb.	='REV OUT'!I27	='REV OUT'!O27	=SUM(B27:C2 7)	=SUM('EXP OUT'!B27:E27,'EXP OUT'!G27)	=SUM('EXP OUT'!F27,'EXP OUT'!H27:J27)	=SUM(E27:F27)	=B27/E27	=C27/F27	=D27/G27

RATIOS OUT

	A	B	C	D	E	F	G	H	I	J
28	36,000-40,000 lb.	='REV OUT'!I28	='REV OUT'!O28	=SUM(B28:C28)	=SUM('EXP OUT'!B28:E28,'EXP OUT'!G28)	=SUM('EXP OUT'!F28,'EXP OUT'!H28:J28)	=SUM(E28:F28)	=B28/E28	=C28/F28	=D28/G28
29	40,000-45,000 lb.	='REV OUT'!I29	='REV OUT'!O29	=SUM(B29:C29)	=SUM('EXP OUT'!B29:E29,'EXP OUT'!G29)	=SUM('EXP OUT'!F29,'EXP OUT'!H29:J29)	=SUM(E29:F29)	=B29/E29	=C29/F29	=D29/G29
30	45,000-50,000 lb.	='REV OUT'!I30	='REV OUT'!O30	=SUM(B30:C30)	=SUM('EXP OUT'!B30:E30,'EXP OUT'!G30)	=SUM('EXP OUT'!F30,'EXP OUT'!H30:J30)	=SUM(E30:F30)	=B30/E30	=C30/F30	=D30/G30
31	50,000-55,000 lb.	='REV OUT'!I31	='REV OUT'!O31	=SUM(B31:C31)	=SUM('EXP OUT'!B31:E31,'EXP OUT'!G31)	=SUM('EXP OUT'!F31,'EXP OUT'!H31:J31)	=SUM(E31:F31)	=B31/E31	=C31/F31	=D31/G31
32	55,000-60,000 lb.	='REV OUT'!I32	='REV OUT'!O32	=SUM(B32:C32)	=SUM('EXP OUT'!B32:E32,'EXP OUT'!G32)	=SUM('EXP OUT'!F32,'EXP OUT'!H32:J32)	=SUM(E32:F32)	=B32/E32	=C32/F32	=D32/G32
33	60,000-65,000 lb.	='REV OUT'!I33	='REV OUT'!O33	=SUM(B33:C33)	=SUM('EXP OUT'!B33:E33,'EXP OUT'!G33)	=SUM('EXP OUT'!F33,'EXP OUT'!H33:J33)	=SUM(E33:F33)	=B33/E33	=C33/F33	=D33/G33
34	65,000-70,000 lb.	='REV OUT'!I34	='REV OUT'!O34	=SUM(B34:C34)	=SUM('EXP OUT'!B34:E34,'EXP OUT'!G34)	=SUM('EXP OUT'!F34,'EXP OUT'!H34:J34)	=SUM(E34:F34)	=B34/E34	=C34/F34	=D34/G34
35	70,000-75,000 lb.	='REV OUT'!I35	='REV OUT'!O35	=SUM(B35:C35)	=SUM('EXP OUT'!B35:E35,'EXP OUT'!G35)	=SUM('EXP OUT'!F35,'EXP OUT'!H35:J35)	=SUM(E35:F35)	=B35/E35	=C35/F35	=D35/G35
36	75,000-80,000 lb.	='REV OUT'!I36	='REV OUT'!O36	=SUM(B36:C36)	=SUM('EXP OUT'!B36:E36,'EXP OUT'!G36)	=SUM('EXP OUT'!F36,'EXP OUT'!H36:J36)	=SUM(E36:F36)	=B36/E36	=C36/F36	=D36/G36
37	Total	=SUM(B14:B36)	=SUM(C14:C36)	=SUM(D14:D36)	=SUM(E14:E36)	=SUM(F14:F36)	=SUM(G14:G36)	=B37/E37	=C37/F37	=D37/G37