

# CATEGORY 3 WORK GROUP

## URBANIZED AREA (NON-TMA) MOBILITY

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### *RECOMMENDATIONS REPORT, FUNDING DISTRIBUTION EQUATION, AND MPO GEOGRAPHIC DISTRIBUTIONS*

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**TxDOT Executive Management**  
*and the*  
**Texas Transportation Commission**



*Prepared by*  
*Texas Transportation Institute*



*In Cooperation with the*  
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## REPORT ORGANIZATION

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## EXECUTIVE SUMMARY

The Category 3 work group met on August 5-6, 2008 to reconsider the funding distribution equation developed in 2003. This equation has been used by TxDOT to make distribution of Metropolitan Mobility funds since that time.

In addition to use of the existing seven variables of the year 2003 equation, the TxDOT Administration recommended consideration of the following issues:

- Addressing existing congestion
- Time value of money for delayed projects.

Addressing the first point of the Administration request, the work group members reached consensus to include an element to accommodate a congestion factor in the new equation.

Addressing the second point of the Administration request, considerable discussion of the programming and scheduling process through the Unified Transportation Program (UTP) led to consensus that a process similar to the “Trade Fair” should be re-initiated. It was agreed that a new process should include accountability for overruns in cost and the process should prevent penalizing one MPO area because another MPO area was allowed to advance a project to contract during times of limited funding. The group also concluded that, historically, projects which were allowed to advance in time were done so due to other projects not being able to go to contract letting on schedule, thus no financial burden should be placed on the projects which are let in advance, and no benefit should be accrued by the projects which were delayed due to their development problems. It was also concluded that no projects have voluntarily been delayed by one District in order for other Districts to advance their projects. In the event that this situation should occur in the future, the work group recommended consideration of a financial incentive to accommodate inflation costs for the volunteer-district project.

Consensus was that there should be new rules to keep track of actual project expenses compared to programmed amounts. This process should prevent some areas from significantly overspending their allocated funds, which typically results in other areas not being able to let programmed projects.

The work group considered the need and appropriateness of the year 2003 factors and their respective weight value in the equation. The final equation included all previous factors, but weighting of each factor was changed. As previously stated, a congestion factor was added to the equation.

The final equation inputs recommended by the workgroup are compared with the existing equation (years 2003 – 2007) in the following table.

<b>Basic Equation Element/Variable</b>	<b>New Recommendation</b>	<b>Old Equation (2003-07)</b>
Census population	25%	26.40%
Population below poverty level	4%	8.60%
Fatal and incapacitating crashes	10%	10.70%
Total VMT (on and off system)	20%	21.90%
Lane miles	8%	11.10%
Truck VMT	15%	14.70%
Centerline Miles	8%	6.60%
Congestion	10%	0.00%

Due to lack of available current demographic data at the meeting, the Work Group was unable to determine the percentage of funds that would go to each individual MPO at that time. These numbers were later calculated by TxDOT based on demographic data furnished by individual MPOs.

The Work Groups did set the policy for determining their individual percentages by stating that these would be computed from demographic data based on the Metropolitan Area Boundary (MAB) of the MPO. In other words, the MAB demographics would be used as the geographical basis for funds distribution. The MAB is generally defined as the area that includes the Bureau of Census Urbanized Area plus an area expected to be the growth area for the next twenty to twenty-five years. Each MPO has a MAB approved by their Policy Committee and agreed to by TxDOT or the Governor.

More specifically, the MABs are to be used as they exist at the time of funds availability and distribution. It is likely that at least some of the MABs will be changed between the 2008 Work Group meeting and the point in time at which funds become available.

The 2003 -2007 equation had been calculated by TxDOT in a similar manner with exception that the demographic data used for each MPO was based on the Census Metropolitan Statistical Area Boundary (MSA). The MSAs included several counties entirely outside of the MABs as well as many portions of counties which were outside of the MPO MABs. Furthermore, each of the MSA counties was previously included in its entirety in the distribution equation, regardless of whether it included any portion of the MAB or not. This was not the intention of the original work group (and in a few cases had significantly affected the past distributions).

The workgroup made the following recommendations regarding the new equation, how it should be applied, and how expenditures should be tracked by individual MPO:

- New funds distribution equation parameters
  - 2007 Population estimates (Metropolitan Area Planning Boundary)
  - 2000 Percent of population below the Federal poverty level
  - 2007 Fatal and incapacitating crashes
  - 2007 Total VMT (on and off system)
  - 2007 Lane miles (on system)
  - 2007 Truck VMT (on system)
  - 2007 Centerline Miles (on system)
  - Congestion Above Threshold
- Geographical boundaries to be used with equation
  - The work group came to consensus that the Metropolitan Area Planning Boundaries (MAB) should be used as the geographical basis for funds distribution. More specifically, the MABs will be used as they exist at the time of funds availability and distribution.
- Expenditure accountability by MPO
  - The workgroup came to consensus that TxDOT should develop a process to track spending by each MPO. The intention is to ensure that MPOs do not over-spend funds due to project cost overruns.
- Addressing congestion
  - Congestion Above Threshold level was concluded to be a new factor in the equation.
- The Work Group should meet every five years as a minimum to re-evaluate the process and equation.

Each recommendation is further discussed later in this report.

During the Work Group meeting, various scenarios were tested by varying the percentages for each of the seven elements to compare outcomes of percentage distribution on individual MPOs. The various scenarios tested are shown in Appendix G of the Meeting Notes which is a part of this Report. These scenarios, of course, vary somewhat when compared to the final demographically calculated percentages.

The equation compares the relative percent of each parameter in each metropolitan area with the total of all 17 areas and then weights each parameter. For example: if the total population of one metro area is 1 million persons and the total population of the 17 combined areas is 15 million, then the percent population for that one area is  $1/15$  (x100) or 6.7 percent. If the weighted importance of population to all the parameters is 17% then the contribution of population to the percentage distribution for the one area is

17/100 x 6.7 or 1.1%. This calculation is performed for each weighted parameter and then the weighted parameter calculations are summed to arrive at a percentage of 100% of the Category funds that would be allocated to that one area.

This is actually a simple process once the demographic data from the individual MPOs is determined. The demographic data would not require revision unless an MPO officially changes its MAB and has the revision approved by TxDOT or the Governor. This should also be a simple change once the system is set up.

The MPOs have, since the Work Group meeting, provided electronic shape files of their officially adopted MABs to TxDOT. Only those portions of counties which are covered by MABs are included when calculating new distribution factors. TxDOT also worked with all MPOs and the TPP Data Management Section for collection of individual MPO demographic data to be used in determining final percentages for a new distribution equation.

Each MPO's individual overall percentage of total distribution was later determined by multiplying their individual percentage of total for each element by the equation factors.

The following table indicates geographic distribution to the 17 Urban (Non-TMA) MPOs in Category 3 in accordance with the new equation and new demographic data chosen by the Work Group. The table also allows a comparison with the guesstimate distributions of the Work Group at the August 2008 meeting as well as comparison with the old 2003-2007 distribution percentages previously used by TxDOT.

It is noted that Attachment F page 69 shows distribution of congestion percentages for individual MPOs both with and without congestion VMT in urbanized areas along IH 35. The Work Group decided to recommend distribution percentages that do not consider congestion in the IH 35 corridor urbanized areas with the thought that special funding outside of Category 3 would be required to address these needs. It was stated that the funding required for these urban projects would never be enough to address needs with District allocations from Category 3, and that precedent has previously been set for funding from other sources. The Work Group recommended that the IH 35 congestion be removed from consideration only as long as TxDOT commits funds from other sources to fund the urbanized area work. The recommendation also stated that should no other funds be committed and Category 3 funds be the only source for the IH 35 projects, then the percentages with IH 35 congestion included (Appendix F) should be used in the distribution equation.”

MPO Area	New Distribution Percentages	Guesstimate Distribution Percentages at Work Group Meeting	Old Distribution Percentages Used by TxDOT 2003-2007
Abilene	4.672%	4.672%	4.112%
Amarillo	6.119%	6.038%	6.706%
Beaumont (JORTS)	14.493%	14.696%	15.626%
Brownsville	5.723%	5.665%	5.718%
Bryan-College Station	5.945%	5.834%	5.347%
Harlingen-San Benito	4.698%	4.544%	5.497%
Killeen-Temple	9.220%	8.735%	9.503%
Laredo	5.514%	5.203%	4.897%
Longview	4.476%	4.799%	5.065%
Midland-Odessa	8.065%	8.172%	7.174%
San Angelo	2.559%	2.701%	2.338%
Sherman-Denison	4.354%	4.313%	4.077%
Texarkana	2.584%	2.964%	2.700%
Tyler	6.852%	6.861%	6.274%
Victoria	3.162%	3.164%	3.874%
Waco	8.261%	8.189%	7.668%
Wichita Falls	3.303%	3.364%	3.424%
Totals	100.000%	100.000%	100.000%

Individual MPO demographic data used in calculating new distribution percentages are shown in Appendix 1.

It is important to note that the new distribution equation will be used at a point in the future when a new source of Category 3 funds becomes available. This formula does not affect the current UTP nor the UTP which is being prepared for year 2009.

## **BACKGROUND**

### **Workshop Purpose**

The Category 3 work group was reconvened in August 2008 in accordance with a recommendation made in 2003, when the first Category 3 work group met. The 2003 recommendation was that the workgroup meet again and analyze the process and consider potential changes five years after its inception. This activity fulfills a desire to keep the process dynamic with changing circumstances affecting transportation project programming for the non-TMA MPOs.

### **Work Group Composition**

Each MPO and corresponding TxDOT district had one voting member on the work group. Sixteen of the seventeen MPOs and eleven of fourteen corresponding TxDOT districts had the following voting members present:

- Abilene MPO – Robert Allen (Director)
- Abilene District – Blair Haynie (TPD Director)
- Amarillo MPO – Travis Muno (Director)
- Amarillo District – Kenneth Petr (TPD Director)
- Beaumont-Port Arthur MPO – Bob Dickinson (Director)
- Beaumont District – Phillip Lujan (TPD Director)
- Brownsville MPO – Alfonso Vallejo (Planner)
- Bryan-College Station MPO – Linda LaSut (Director)
- Bryan District – Bob Appleton (TPD Director)
- Harlingen-San Benito MPO – Jose Cordova (GIS Analyst/Planner)
- Killeen-Temple MPO – Beth Correa (Regional Planner)
- Laredo MPO – Keith Selman (Director)
- Longview MPO – Karen Owen (Director)
- Midland-Odessa MPO – Melba Owens (Director)
- Odessa District – Matt Carr (Design Engineer)
- San Angelo MPO – E’Lisa Smetana (Director)
- San Angelo District – John DeWitt (TPD Director)
- Sherman-Denison MPO – Bob Wood (Director)
- Paris District – Ricky Mackey (Advance Planning Engineer)
- Texarkana MPO – Brad McCaleb (Director)
- Atlanta District – Dennis Beckham (TPD Director)
- Tyler MPO – Tony Filippini (Senior Planner)
- Tyler District – Randy Redmond (TPD Director)
- Victoria MPO – Ray Miller (Director)
- Waco MPO – Chris Evila (Director)
- Waco District – Reggie Richardson (TPD Director)
- Wichita Falls District – Michael Beaver (Design Bridge Engineer)

## **2002-2003 Work Group Efforts**

Sixteen of the seventeen non-TMA MPOs and eleven of the fourteen corresponding TxDOT districts participated in the 2002-2003 workgroup sessions. Each MPO and district had one voting member on the workgroup, varying among policy committee members and staff. The workgroup met several times in late 2002 and early 2003 in Austin to discuss and consider various factors that could be elements of a formula through which Category 3 funds would be distributed to the Urban areas (non-TMAs.)

The 2003 formula included the following factors and approximate weighted values:

- On-System Truck VMT (15%)
- Population (26%)
- On-System Centerline Miles (6%)
- On-System Lane Miles (11%)
- Fatal and Incapacitating Injury Accident Crashes (11%)
- Percent Population under Federal Poverty Level (9%)
- Total On and Off-System VMT (22%)

The original work group discussed many criteria that could possibly be used as factors in the final formula. At one point the list was narrowed to 14 criteria. Discussion of the 14 criteria indicated that the original proposed formula would allow for only ten projects among six urban areas. At the final meeting, the work group decided to use the same criteria selected by the Category 2 work group, but use different weightings selected by the Category 3 work group.

## **USE OF 2003 DISTRIBUTION EQUATION**

TxDOT began using the formula recommended by the Category 3 work group to distribute funds to the 17 non-TMA MPOs in 2003. Although TxDOT staff was unable to validate this conclusion, it was generally thought that TxDOT used metropolitan statistical area (MSA) boundaries resulting from the 1990 census when distributing Category 3 funds, beginning in 2003. The 2003 Category 3 work group did not recommend this policy, and there is no documentation explaining why the 1990 MSA boundaries were used. According to comments at the 2008 work group meetings, the 2003 participants anticipated that metropolitan area boundaries (MABs) would be used to distribute the funds. The 2008 work group made a recommendation that MABs be used in the equation they have developed.

MPOs programmed projects according to the funding levels allocated to them. In some cases, however, projects cost far more than was originally programmed for them. These situations caused projects in other areas to not be let to contract due to a lack of statewide

funding. This issue was discussed by the 2008 work group and is detailed in a later section of this report.

## **2008 WORK GROUP EFFORT**

### **Charge to Workgroup**

John Barton, Assistant Executive Director for Engineering Operations (TxDOT), gave the official charge to the 2008 workgroup. That charge was to consider whether revision of the previous UTP distribution equation was desirable prior to preparation for any new mobility funds which may become available. New mobility funds may include Proposition 12 bonds. The work group was asked to consider the recently approved Category 2 factors to determine possible applicability for Category 3. Mr. Barton emphasized that the formula that the Category 3 work group develops will be used once new funds are available; it will not affect the existing UTP or past funding levels or past allocations.

Mr. Barton stated that there need to be rules for spending money on programmed projects and tracking those expenditures so some areas do not miss out on letting programmed projects.

The work group was also asked to specifically consider including congestion as a new factor in the formula. The congestion discussion is included later in this report.

### **TTI Review of Category 3 Process**

Texas Transportation Institute (TTI) staff made a presentation that reviewed the 2002-2003 Category 3 deliberation process. This review reminded those who were part of the 2002-2003 process of what had transpired and how the formula they developed and recommended was used. The review also informed new members of the work group of what the process was about and helped bring everyone to the same point of beginning for this effort. Veteran members were asked to share their experiences. Discussions of those points are included in this report.

### **Process**

As in the 2002-2003 workgroup sessions, the participants worked in a cooperative manner, recognizing the differences and needs of the various MPOs that are eligible to program Category 3 funds. Each non-TMA and corresponding TxDOT district had one voting member on the work group. While votes were taken on specific issues during the workshop, decisions were made by reaching consensus.

## **Tracking Project Costs**

One issue introduced by a veteran member of the work group was clarifying the rules used for funding distribution, no rules were set, and there appeared to be no system for tracking project expenditures by MPO. Mr. Barton agreed that there should be rules for spending the funds and that there should be tracking of expenditures. He related past experiences in which programmed projects were not able to be let to contract because costs of other projects previously exceeded estimates.

TxDOT Planning and Programming staff informed the work group that they are moving the equation from a project-specific target to a true allocation. Work group members agreed that this step should help meet the goal of preventing excessive project cost overruns currently affecting project lettings. Another point made was that in times when total amounts of funding were not a concern, there was not necessarily an overall problem with cost overruns affecting other projects or starting over with accounting. The point was continued by stating that in current times of extremely limited funding, the overruns can have significant impacts on other projects and that TxDOT should not continue to “wipe the slate clean” in terms of keeping track of how much money is spent in each area.

The work group reached consensus that there should be a system for tracking expenditures and setting letting caps by area to prevent a recurrence of past events.

## **Addressing Existing Congestion**

The workgroup was asked to consider including congestion as a factor in the distribution equation because it was not included in the existing equation.

Tim Lomax, of TTI, made a presentation to the workgroup in which he offered a basic approach to consider congestion in the equation. He pointed out that it follows the same philosophy that was used in the mobility plans in recent years. The approach for considering congestion includes a method of computing the level for different thresholds by use of VMT above a congestion threshold. The travel is organized by either urban or rural and separated by county. The congestion levels were based on Quality of Flow values and the Urban Mobility Report. Freeways do include tollways, and streets are based on being divided roadway capacities per lane.

The basic concept is to calculate the amount of VMT above a given congestion threshold (that is consistent for all areas) and use that amount of congested VMT for comparison. Lomax offered three congestion levels to consider:

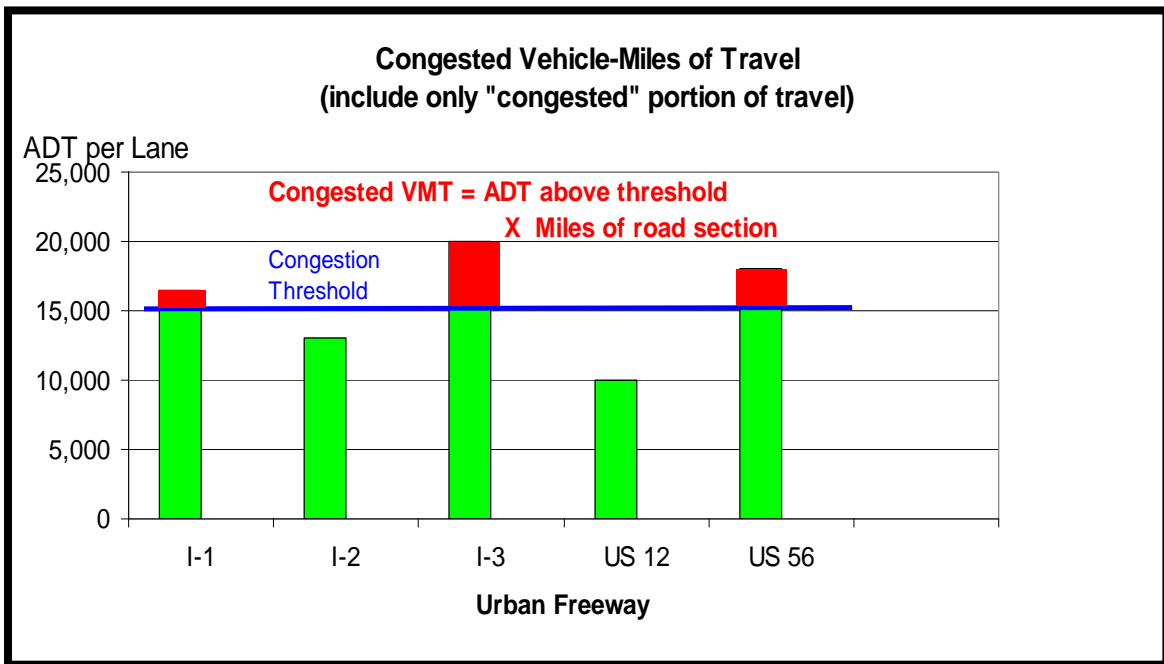
- Moderate (between level of service E),
- Heavy (between E&F), and
- Serious (beyond F).

Table 1 presents the congestion levels and thresholds by road and area type. The numbers in the “Serious,” “Heavy,” and “Moderate” columns are the assumed daily capacities per lane per road and area type.

**Table 1. Road Volumes by Level of Service and Road Type**

Road & Area	HPMS FC Number	Serious (LOS F)	Heavy (LOS E-F)	Moderate (LOS E)
<b>Urban</b>				
Frwy	11,12	16,000	14,500	13,000
Street	14,16	5,500	5,000	4,500
<b>Rural</b>				
Frwy	01	10,000	9,000	8,000
Street	02,06	4,500	4,000	3,500

Figure 1 provides graphic examples of how congested VMT is calculated using the congestion targets and associated traffic volumes. The VMT represented in red portions of the bars (the portion above the threshold) would be used for the calculation of congested VMT in a region.



**Figure 1. Congested VMT Thresholds and Calculations**

Figures 2, 3, and 4 present each MPO and its percent of the total congested VMT in the three categories for all 17 non-TMA MPOs in Texas. These data indicate that approximately one-half of non-TMA MPO congestion is experienced in the Beaumont-Port Arthur-Orange, Killeen-Temple, and Waco areas.

<b>Serious Congestion (LOS F)            Category 3 Percentages</b>			
• Abilene	2.63%	•Mid-Odessa	1.75%
• Amarillo	2.38%	•San Angelo	0.04%
• Beau-PA-Orng	15.13%	•Sher-Denison	6.27%
• Brownsville	7.91%	•Texarkana	0.46%
• Bryan-Coll Sta	9.52%	•Tyler	5.76%
• Harlin-San Ben	6.00%	•Victoria	1.35%
• Killeen-Temple	19.16%	•Waco	12.53%
• Laredo	6.85%	•Wichita Falls	0.29%
• Longview	1.97%		

**Figure 2. MPOs and Percent of Total MPO Serious Congested VMT (LOS F)**

## Heavy Congestion (LOS E-F) Category 3 Percentages

• Abilene	2.26%	•Mid-Odessa	2.05%
• Amarillo	2.57%	•San Angelo	0.05%
• Beau-PA-Orng	16.43%	•Sher-Denison	5.43%
• Brownsville	7.12%	•Texarkana	0.82%
• Bryan-Coll Sta	8.99%	•Tyler	6.75%
• Harlin-San Ben	5.40%	•Victoria	1.44%
• Killeen-Temple	18.22%	•Waco	13.02%
• Laredo	6.33%	•Wichita Falls	0.49%
• Longview	2.64%		

**Figure 3. MPOs and Percent of Total MPO  
Heavy Congested VMT (LOS E-F)**

## Moderate Congestion (LOS E) Category 3 Percentages

• Abilene	1.87%	•Mid-Odessa	2.37%
• Amarillo	2.91%	•San Angelo	0.11%
• Beau-PA-Orng	16.72%	•Sher-Denison	4.87%
• Brownsville	6.41%	•Texarkana	1.34%
• Bryan-Coll Sta	8.20%	•Tyler	7.41%
• Harlin-San Ben	4.87%	•Victoria	1.86%
• Killeen-Temple	17.29%	•Waco	13.32%
• Laredo	5.62%	•Wichita Falls	0.88%
• Longview	3.95%		

**Figure 4. MPOs and Percent of Total MPO  
Moderate Congested VMT (LOS E)**

Upon observing the congested VMT levels for each MPO, the work group identified three areas that stood out. Those three areas were Beaumont-Port Arthur-Orange, Killeen-Temple, and Waco. Each of these areas had well over 10% of the total small MPO congested VMT in the state. Discussion then centered around the facts that Beaumont-Port Arthur-Orange is on a segment of IH 10 that carries a large amount of truck traffic and that Killeen-Temple and Waco are on the heavily-traveled IH 35. Discussion related to IH 10 in the Beaumont-Port Arthur-Orange area was relatively short. The work group spent more time debating the impact of IH 35 on congestion in the Killeen-Temple and Waco areas.

### *IH 35 Congestion*

When the work group observed that the Killeen-Temple and Waco areas, both on IH 35, had two of the three largest percentages of statewide small MPO congested VMT, the members began to debate whether IH 35 was a large part of the congestion. Discussion also included the idea that IH 35 congestion is a combination of regional, statewide, and national traffic. Some members provided anecdotal experiences of driving on those congestion segments. Representatives of those MPOs and TxDOT districts indicated that there are other congested roads in the areas in addition to IH 35 and that there are connectivity issues.

There was further discussion of the concept that TxDOT may have funds dedicated to the entire IH 35 corridor in the future thus relieving the heaviest congestion. It is important to note that there was no promise that such funding would exist at any time. The work group debated whether IH 35, and other Interstates and freeways, should be included in the congestion calculations on a statewide basis. The overall consensus was that there are no other highways, with the possible exception of IH 10 in the Beaumont-Port Arthur-Orange area, that potentially dominate congestion in other areas. The work group asked Dr. Lomax of TTI to run a statewide congestion scenario by taking IH 35 out of the calculations. The results of that scenario are shown in Figure 5.

Notable observations of that scenario are that Waco's percentage of statewide congested VMT dropped significantly from 12.53 to 2.85. Killeen-Temple's percentage dropped far less significantly from 19.16 to 17.40. Beaumont-Port Arthur-Orange's percentage increased from 15.13 to 17.77. Other areas saw relatively similar small changes in their percentages of statewide congested VMT.

## Serious Congestion (LOS F) Cat 3 %ages & No I-35 %ages

• Abilene	2.63%	3.09	•Mid-Odessa	1.75%	2.05
• Amarillo	2.38%	2.80	•San Angelo	0.04%	0.05
• Be-PA-Or	15.13%	17.77	•Sher-Denison	6.27%	7.36
• Brnsville	7.91%	9.29	•Texarkana	0.46%	0.54
• BryCll Sta	9.52%	11.19	•Tyler	5.76%	6.77
• Har-S Ben	6.00%	7.05	•Victoria	1.35%	1.58
• Kil-Temple	19.16%	17.40	•Waco	12.53%	2.85
• Laredo	6.85%	7.54	•Wichita Falls	0.29%	0.34
• Longview	1.97%	2.31			

**Figure 5. Serious Congestion without IH 35**

After discussing the various congestion levels in the TMAs, the work group arrived at consensus to use the “serious” threshold. The discussions explored questions why some cities have much higher congestion levels than others. One important consideration was that after TTI staff ran scenarios using the three congestion levels, there were very small impacts on the resulting amounts of congested VMT among the areas. Another reason for selecting the “serious” threshold was to attempt consistency with the Texas Metropolitan Mobility Plans (TMMP) and Texas Urban Mobility Plans (TUMP). There was a common thought to introduce congestion magnitude through the weighting process.

A primary point of debate related to this issue was whether including congestion in the equation would reward those areas where congestion has improved or whether inclusion would send additional funds to areas that are experiencing the highest congestion levels. One side of the discussion was that money should be directed to areas that have shown improvements in congestion, which could be considered by some as a “reward.” The other side of the discussion was to direct money to areas that are experiencing congestion as an attempt to solve those problems.

### **Factors and Weightings Considered**

The work group discussed the various factors throughout the meeting and ultimately decided to keep all of the previous factors and add a congestion factor. While there were brief discussions of whether to exclude any of the existing factors, the majority of the time was spent on factor weightings. Participants wanted to know what the impacts on

the different MPOs would be if factors were excluded and if weightings were adjusted. The work group discussed in detail the reasons the factors were included by the original (year 2003) work group and the importance of each factor.

The work group suggested and ran various computer scenarios based on different weightings for each factor, including exclusion of some factors in some scenarios. One issue that guided the discussion for a time was whether there should be a minimum percentage of the funds dedicated to MPOs that receive the smallest percentage share when the factor weightings are calculated. A range of 2.5 – 3% was suggested by various members. However, as scenarios were computed with different weightings, no MPO continuously fell below the suggested minimum level. At the end of the process, a minimum percentage level was deemed to be unnecessary and none was recommended.

## **2008 RECOMMENDATIONS**

The workgroup made the following recommendations regarding the new equation, how it should be applied, and how expenditures should be tracked by MPO:

- New funds distribution formula
- Geographical boundaries to be used with formula
- Expenditure accountability by MPO
- Addressing congestion

### **New Equation**

After discussing the need to add or remove any new factors and considering various potential factor weightings, the workgroup approved a new funding distribution formula by consensus. It is important to note that some MPOs were going to take the issue to their policy committees for consideration, given the changes in their percentages of the total funding. These changes are primarily due to the conversion from using MSA counties to using portions of counties that are covered by MABs when determining how much of the total funding each area would receive.

The final equation approved by the workgroup is:

2007 Population estimates (Metropolitan Area Planning Boundary)	25%
2000 Percent of population below the Federal poverty level	4%
2007 Fatal and incapacitating crashes	10%
2007 Total VMT (on and off system)	20%
2007 Lane miles (on system)	8%
2007 Truck VMT (on system)	15%
2007 Centerline Miles (on system)	8%
Congestion Above Threshold	10%

The final equation inputs recommended by the workgroup are compared with the existing equation (years 2003 – 2007) in the following table.

**Table 2 Basic Equation Elements**

<b>Basic Equation Element/Variable</b>	<b>New Recommendation</b>	<b>Old Equation (2003-07)</b>
Census population	25%	26.40%
Population below poverty level	4%	8.60%
Fatal and incapacitating crashes	10%	10.70%
Total VMT (on and off system)	20%	21.90%
Lane miles	8%	11.10%
Truck VMT	15%	14.70%
Centerline Miles	8%	6.60%
Congestion	10%	0.00%

It is important to note that this equation will be used at a point in the future when a new source of Category 3 funds becomes available. This formula does not affect the current UTP which is being prepared for year 2009.

**Geography**

The Work Groups did set the policy for determining their individual percentages by stating that these would be computed from demographic data based on the Metropolitan Area Boundary (MAB) of the MPO. In other words, the MAB demographics would be used as the geographical basis for funds distribution. The MAB is generally defined as the area that includes the Bureau of Census Urbanized Area plus an area expected to be the growth area for the next twenty to twenty-five years. Each MPO has a MAB approved by their Policy Committee and agreed to by TxDOT or the Governor.

More specifically, the MABs are to be used as they exist at the time of funds availability and distribution. It is likely that at least some of the MABs will be changed between the 2008 Work Group meeting and the point in time at which funds become available.

The 2003 -2007 equation had been calculated by TxDOT in a similar manner except that the demographic data used for each MPO was based on the Census Metropolitan Statistical Area Boundary (MSA). The MSAs included several counties entirely outside of the MABs as well as many portions of counties which were outside of the MPO MABs. Furthermore, each of the MSA counties was previously included in its entirety in the distribution equation, regardless of whether it included any portion of the MAB or

not. This was not the intention of the original work group (and in a few cases had significantly affected the past distributions).

### **Individual MPO Distribution Percentages**

Due to lack of available current demographic data at the meeting, the Work Group was unable to determine the percentage of funds that would go to each individual MPO at that time. These numbers were later calculated by TxDOT based on demographic data furnished by individual MPOs.

The workgroup made the following recommendations regarding the new equation, how it should be applied, and how expenditures should be tracked by individual MPO:

- **Geographical boundaries to be used with equation**  
The work group came to consensus that the Metropolitan Area Planning Boundaries (MAB) should be used as the geographical basis for funds distribution. More specifically, the MABs will be used as they exist at the time of funds availability and distribution.
- **Expenditure accountability by MPO**  
The workgroup came to consensus that TxDOT should develop a process to track spending by each MPO. The intention is to ensure that MPOs do not over-spend funds due to project cost overruns.
- **Addressing congestion**  
Congestion Above Threshold level was concluded to be a new factor in the equation.
- **The Work Group should meet every five years as a minimum to re-evaluate the process and equation.**

During the Work Group meeting, various scenarios were tested by varying the percentages for each of the eight elements to compare outcomes of percentage distribution on individual MPOs. The various scenarios tested are shown in Appendix G of the Meeting Notes which is a part of this Report. These scenarios, of course, vary somewhat when compared to the final demographically calculated percentages.

The equation compares the relative percent of each parameter in each metropolitan area with the total of all 17 areas and then weights each parameter. For example: if the total population of one metro area is 1 million persons and the total population of the 17 combined areas is 15 million, then the percent population for that one area is  $1/15$  (x100) or 6.7 percent. If the weighted importance of population to all the parameters is 17% then the contribution of population to the percentage distribution for the one area is  $17/100 \times 6.7$  or 1.1%. This calculation is performed for each weighted parameter and then the weighted parameter calculations are summed to arrive at a percentage of 100% of the Category funds that would be allocated to that one area.

This is actually a simple process once the demographic data from the individual MPOs is determined. The demographic data would not require revision unless an MPO officially changes its MAB and has the revision approved by TxDOT or the Governor. This should also be a simple change once the system is set up.

The MPOs have, since the Work Group meeting, provided electronic shape files of their officially adopted MABs to TxDOT. Only those portions of counties which are covered by MABs are included when calculating new distribution factors. TxDOT also worked with all MPOs and the TPP Data Management Section for collection of individual MPO demographic data to be used in determining final percentages for a new distribution equation.

Each MPO's individual overall percentage of total distribution was later determined by multiplying their individual percentage of total for each element by the equation factors.

The following table indicates geographic distribution to the 17 Urban (Non-TMA) MPOs in Category 3 in accordance with the new equation and new demographic data chosen by the Work Group. The table also allows a comparison with the guesstimate distributions of the Work Group at the August 2008 meeting as well as comparison with the old 2003-2007 distribution percentages previously used by TxDOT.

It is noted that Attachment F page 69 shows distribution of congestion percentages for individual MPOs both with and without congestion VMT in urbanized areas along IH 35. The Work Group decided to recommend distribution percentages that do not consider congestion in the IH 35 corridor urbanized areas with the thought that special funding outside of Category 3 would be required to address these needs. It was stated that the funding required for these urban projects would never be enough to address needs with District allocations from Category 3, and that precedent has previously been set for funding from other sources. The Work Group recommended that the IH 35 congestion be removed from consideration only as long as TxDOT commits funds from other sources to fund the urbanized area work. The recommendation also stated that should no other funds be committed and Category 3 funds be the only source for the IH 35 projects, then the percentages with IH 35 congestion included (Appendix F) should be used in the distribution equation.

**Table 3 Distribution Percentages**

MPO Area	New Distribution Percentages	Guesstimate Distribution Percentages at Work Group Meeting	Old Distribution Percentages Used by TxDOT 2003-2007
Abilene	4.672%	4.672%	4.112%
Amarillo	6.119%	6.038%	6.706%
Beaumont (JORTS)	14.493%	14.696%	15.626%
Brownsville	5.723%	5.665%	5.718%
Bryan-College Station	5.945%	5.834%	5.347%
Harlingen-San Benito	4.698%	4.544%	5.497%
Killeen-Temple	9.220%	8.735%	9.503%
Laredo	5.514%	5.203%	4.897%
Longview	4.476%	4.799%	5.065%
Midland-Odessa	8.065%	8.172%	7.174%
San Angelo	2.559%	2.701%	2.338%
Sherman-Denison	4.354%	4.313%	4.077%
Texarkana	2.584%	2.964%	2.700%
Tyler	6.852%	6.861%	6.274%
Victoria	3.162%	3.164%	3.874%
Waco	8.261%	8.189%	7.668%
Wichita Falls	3.303%	3.364%	3.424%
Totals	100.000%	100.000%	100.000%

Individual MPO demographic data used in calculating new distribution percentages are shown in Appendix 1.

It is important to note that the new distribution equation will be used at a point in the future when a new source of Category 3 funds becomes available. This formula does not affect the current UTP nor the UTP which is being prepared for year 2009.

**Accountability**

The 2008 workgroup came to consensus that TxDOT should develop a process to track spending by each MPO. The intention is to ensure that MPOs do not over-spend allocated funds due to project cost overruns.

Discussion of the Unified Transportation Program (UTP) planning process led to consensus that a process similar to the “Trade Fair” should be re-initiated. The new process, however, should include accountability for overruns in cost and the process

should prevent penalizing one MPO area because another MPO area was allowed to advance a project during times of limited funding. The group also concluded that projects which were allowed to advance in time were done so due to other projects not being able to let on schedule, thus no financial burden should be placed on the projects let in advance, and no benefit should be accrued by the projects which were delayed due to their development problems. It was concluded that no projects have voluntarily been delayed by one District in order for other Districts to advance their projects. In the event that this situation should occur in the future, the work group recommended consideration of a financial incentive to accommodate inflation costs for the volunteer-district project.

# APPENDIX 1

## Urban Area (Non-TMA) Demographic Data

Urban MPO	TEXAS COUNTIES	Factor Weight		25.00%		4.00%		10.00%		20.0%		8.00%		15.00%		8.00%		10.0%		100.0%	
		MAB Population Provided by MPOs	Population Below Poverty Level	2007 Crashes	Total VMT (on & off system)	Auto VMT (on & off system)	Lane Miles (on system)	Truck VMT	Centerline Miles	Congestion	Final Percent										
Abilene	Jones		148		1.1		27,930		46		4,116		21		0						
	Taylor		20,766		103.6		3,721,553		1,154		482,630		460		119,369						
Amarillo	Potter	123,756	4.1579%	20,914	3.696%	105	4.5955%	3,749,484	4.8041%	3,438,268	4.6853%	1,200	5.955%	486,746	5.1677%	481	6.2767%	119,369	3.3463%	3.7352%	
	Randall			5,327		37.2		1,348,009				811		429,180		276		46,246			
Beaumont (JOHRTS)	Hardin	211,259	7.0978%	26,426	4.671%	157	6.8905%	4,753,529	6.0906%	4,775,899	6.5080%	1,352	6.711%	554,079	5.8826%	492	6.4248%	83,571	2.3428%	4.8179%	
	Jefferson			5,779		45.0		1,636,236				575		151,128		249		104,889			
Brownsville	Orange			45,305		210.0		7,384,453				1,123		701,352		365		420,850			
	Cameron	376,241	12.6407%	13,170	11.357%	150.0		3,002,618		11,764,703	16.0316%	2,317	11.499%	444,147	13.7662%	234	11.0727%	195,841	20.2284%	11.2866%	
Bryan-College Station	Cameron			64,254		405	17.7861%	12,023,307	15.4052%			838		323,173		848		721,581			
	Brazos	217,266	7.2996%	74,464	13.161%	75	3.2937%	3,787,385	4.8527%	2,944,445	4.0124%	838	4.158%	323,173	3.4311%	321	4.1875%	377,300	10.5770%	4.9207%	
Harlingen-San Benito	Brazos	170,954	5.7436%	41,685	7.368%	116	5.0943%	4,369,824	5.989%	4,313,960	5.8786%	892	4.426%	353,221	3.7501%	325	4.2402%	454,344	12.7368%	4.7695%	
	Cameron			41,685		116		4,369,824				892		353,221		325		454,344			
Killeen-Temple	Cameron	133,116	4.4724%	62,549	11.055%	63	2.7667%	3,181,404	4.0763%	3,909,231	5.3270%	704	3.493%	271,465	2.8821%	269	3.5175%	286,377	8.0281%	3.6329%	
	Bell			62,549		63		3,181,404				704		271,465		269		286,377			
Laredo	Coryell			26,482		148.0		6,537,018				1,208		839,289		477		416,408			
	Lampasas	318,246	10.6922%	867	4.864%	3.9		117,122		7,470,664	10.1802%	68	6.455%	15,047	9.1102%	33	6.7920%	18,597	12.1947%	7.1844%	
Longview	Webb			169		0.9		33,105				24		3,751		11		0			
	Webb	228,558	7.6790%	27,518	9.005%	153	6.7104%	6,687,245	8.5682%	3,050,091	3.9080%	845	4.193%	433,945	4.6072%	326	4.2594%	229,479	6.4331%	4.6561%	
Midland-Odessa	Gregg			50,948		83.3		3,050,091		3,148,049	4.2898%	845		433,945		326		229,479			
	Harrison	101,261	3.4021%	19,980	3.902%	174	7.6599%	4,478,128	5.7377%	3,053,707	4.1612%	1,035	5.138%	561,032	5.9564%	361	4.7132%	67,528	1.8930%	3.6434%	
San Angelo	Rusk			17,809		102.0		3,181,738				951		423,968		337		47,545			
	Upshur			17,809		102.0		3,181,738				951		423,968		337		47,545			
Sherman-Denison	Ector	251,079	8.4356%	24,440	7.501%	235	10.3203%	6,603,188	8.4605%	5,738,832	7.8202%	1,987	9.861%	803,775	8.5336%	725	9.4605%	83,412	2.3383%	6.5006%	
	Midland			24,440		235		6,603,188				1,987		803,775		725		83,412			
Texarkana	Tom Green	91,122	3.0615%	15,294	2.703%	59	2.5691%	1,953,448	2.5029%	1,544,414	2.1045%	920	4.566%	167,805	1.7816%	354	4.6142%	1,691	0.0474%	2.1368%	
	Grayson			15,294		59		1,953,448				920		167,805		354		1,691			
Tyler	Bowie	93,634	3.1459%	13,029	2.303%	121	5.3007%	3,126,915	4.0064%	2,890,830	3.9393%	1,028	5.103%	360,610	3.8286%	443	5.7851%	254,166	7.1252%	3.5665%	
	Grayson			13,029		121		3,126,915				1,028		360,610		443		254,166			
Victoria	Smith	58,544	1.9669%	10,070	1.780%	41	1.7984%	2,002,503	2.5658%	1,628,242	2.2188%	778	3.860%	448,071	4.7571%	321	4.1920%	14,220	0.3986%	2.1403%	
	Bowie			10,070		41		2,002,503				778		448,071		321		14,220			
Waco	Smith	177,362	5.9589%	26,765	4.731%	212	9.3278%	5,836,014	7.4775%	4,611,687	6.2843%	1,439	7.141%	723,152	7.6776%	543	7.0840%	247,338	6.9338%	5.5948%	
	Smith			26,765		212		5,836,014				1,439		723,152		543		247,338			
Wichita Falls	Victoria	86,291	2.8992%	12,806	2.263%	45	1.9762%	2,683,094	3.4378%	2,650,480	3.6118%	890	4.418%	357,033	3.7906%	311	4.0540%	64,196	1.7996%	2.4392%	
	Victoria			12,806		45		2,683,094				890		357,033		311		64,196			
Grand Total	McLennan	225,027	7.5603%	40,400	7.140%	157	6.8948%	7,204,682	9.2312%	7,198,441	9.8092%	1,670	8.287%	1,107,497	11.7582%	654	8.5358%	115,694	3.2433%	6.2991%	
	McLennan			40,400		157		7,204,682				1,670		1,107,497		654		115,694			
Grand Total	Wichita	112,700	3.7864%	14,153	2.501%	77	3.3596%	2,557,034	3.2763%	2,302,690	3.1378%	954	4.736%	312,607	3.3189%	367	4.7904%	11,893	0.3334%	2.6759%	
	Wichita			14,153		77		2,557,034				954		312,607		367		11,893			
Grand Total		2,976,416	100.000%	565,788	100.000%	2,277	100.000%	78,047,274	100.000%	73,384,542	100.000%	20,150	100.000%	9,418,926	100.000%	7,661	100.000%	3,567,162	100.000%	80.0000%	80.0000%



## **APPENDIX 2**

### **Meeting Notes from UTP Category 3 Work Group Meeting August 5 (8:30 am until 5:00 pm) and August 6 (8:30 am until noon) Embassy Suites North – Austin**

*m-wade tti fn=c:/UTP/Cat 3 Mtg Notes 12.03.08*

#### **Meeting began at 8:45**

Agenda handed out (See Attachment A, Page 23)

M.Wade: Montie Wade welcomed the group and initiated self-introductions among all the participants. (Attachment B-Roster, Page 24)

Wade noted that the original Category 3 report had recommended that the work group be reconvened after a five-year time period to reconsider the equation for distribution of funds.

Wade suggested that this meeting should not be considered to be a formal process and that individuals are encouraged to make comments and ask questions at any time during the deliberation process. Wade then referenced the Agenda, and introduced John Barton, Assistant Executive Director for Engineering Operations, TxDOT, to present the group's Charge and share his comments to the Work group.

#### **I. Charge and Comments to Work Group – John Barton, TxDOT**

J.Barton: John Barton welcomed the group and thanked them for making time for this important process. He then introduced Mr. Phillip Russell, Assistant Executive Director for Innovative Project Development, TxDOT.

P.Russell: Phillip Russell echoed J.Barton's comments and expressed appreciation for work group's efforts, before yielding the floor to Barton once again.

J.Barton: Barton expressed the purpose for the work group being here, stating that their charge is simple: Revising the existing UTP formula in preparation for any new mobility funds which may become available. He noted that there was \$433Mil in funding for 11 yrs, adding that we are hopeful Congress/legislative action will turn out more funds. Though this process today will not affect the current UTP, Barton noted the need to revise the existing formula to be prepared for the event that Prop 12 bonds, etc may become available for transportation mobility programs. Category 2 met two weeks ago and tweaked the existing factors and added a new one.

Barton urged the Category 3 work group to consider the Category 2 factors and why weightings and formula are what they are. The template is built and we need to understand it before we try to break away from it. As new revenue becomes available, we need to be able to distribute it. This will be for any new revenue that comes to the table.

We don't know what the possibility is for the Fuel Tax 1 Bill. We don't know how much we might get. As for Federal revenue – no legislation will adequately raise fuel taxes. There may be local options, but that will have no effect on our work today [because we are developing a funds distribution formula, regardless of funding amount].

Barton commented that automobile registration fees are low in Texas (we are 40th in the US). If we raise them \$30 per vehicle, it will provide over a \$1 billion for Texas. To rebuild only I-35 effectively, \$3 billion is needed. Three years times \$30 a vehicle would raise enough to do I-35. He reiterated that the Category 3 work group needs to understand the formula and how we need to distribute funds. The Commission votes in September and in November bonds could be available.

Now we are asking you to review the old distribution equation due to the five-year reevaluation time period in hopes that we'll have funding to use it with later.

You are building a new formula to use from here on. Whenever new funding may become available; this will not affect the existing UTP or past funding levels or past allocations.

M.Wade: Wade thanked Mr. Barton for sharing his comments and introduced Bill Frawley, to go over the work group's background.

## **II. Background – Bill Frawley, TTI (Attachment C-Cat 3 background presentation, Page 26)**

B.Frawley: Bill Frawley acknowledged that Todd Carlson, who was the Work group Moderator for the first group meetings, was unavailable to participate at this time, so he was filling in for this effort, but gave Carlson credit for his part in establishing the first Category 3 formula. Frawley reviewed the process followed five years ago, when the distribution formula for the 17 non-TMAs was established based on three 5-increment sets of projects.

M.Wade: Basically what the work group is here to do today is to determine if you like the present formula, and to change anything you don't agree with/or that needs to change. Wade then introduces David Plutowski, TxDOT.

## **III. Review Past Category 3 Allocation Formula and Category 2 New Allocation Formula Factors – Bill Frawley and Montie Wade, TTI, and David Plutowski, TxDOT**

D.Plutowski: Reviewing his presentation (Attachment D-Old Category 3 allocation formula and new factors, Page 35), David Plutowski explained that there are 12 State Categories of funding.

M.Wade: Wade asked to see a show of hands of all the Category 3 Work group veterans present and asked them to share a brief reflection of past process and suggestions for this meeting.

B.McCaleb: Brad McCaleb had no complaints or comments.

K.Owen: Karen Owen noted the importance of clarifying rules and putting a cap on dollar amounts for projects, etc. We had percentages, but no rules were set. Also, never wiping the slate clean is vital to keep a running total of how much money has actually been spent in each area through time.

J.Barton: That's important to the Administration as well. We had an example in the late 1970's when plans for US 82 improvements couldn't be fulfilled. Commitments were made, but the funds weren't there "King's X" was called, and that's a bad way to deal with things. It undermines public confidence and those who had projects have to start over. That's why we should not wipe the slate clean.

Barton added that there should be rules for spending the money. Early on, a project had to be corridor-related, and that was hard to define and stick to in every region. The money has to be spent on what it is meant for and areas don't like being told how they must use their allocation.

M.Wade: David Casteel (TxDOT) charged Category 2 to be accountable regarding spending fairness. For example: To ensure equitable fairness regarding those who hold off and let another MPO move forward. Casteel also suggested two pots of money under Category 2, one for the largest TMAs and one for the smaller TMAs. The group chose not to do that, but a new formula was established without splitting Category 2 funds.

J.Peterman: Jenny Peterman noted that we're moving the formula from a project-specific target to a true allocation.

K.Owen: That should meet the goal of this issue. It prevents cost escalation from taking the funding beyond limits.

J.Barton: The 2009 letting schedule as of last night was \$2.5Bil available funds. But the District letting caps have turned in \$8Bil. We could sell bonds to cover it and pay for it out of the program. Like a home mortgage, we could sell bonds and pay off the debt over 11 years and take 10 percent off everyone's allocation to cover the interest. That is beyond today's discussion, but good to keep in mind.

B.Haynie: Blair Haynie agreed that more control is needed. We need to make sure everyone is being treated fairly whatever formula we have. Some districts and MPOs were depending on spending funds, and they haven't been able to spend them because of factors outside their control. Others benefited from that situation, and it seems unfair that the others are not compensated somehow.

B.Dickinson: Bob Dickinson stated that K.Owen had a good point. When you have 17 MPOs in a diverse state like this, it is hard to come to a fair, equitable system that will always work well for everyone involved. There will always be environmental issues, and other problems you can't help. You can't ensure total fairness, but you can set rules and do everything possible to keep things going and as equitable as possible, even if nobody is going to be totally happy.

M.Wade: Those are two good points. Category 2 is no better at dealing with this than Category 3, just less diverse. You were able to reach your goal [5 years ago] even though it took eight meetings and much discussion.

M.Burke: Maria Burke commented that, even though it's not their charge, she was glad to hear that Category 3 would have realistic goals for letting.

R.Richardson: Reggie Richardson stated that districts are always optimistic on what they can let. I agree with B.Haynie that we seemed to focus on what Category 2 came up with. What we came up with is not perfect, but was as equitable as we could make it.

J.Peterman talked about target dollars. That's a problem because when we're not talking about actual dollars, that's hard to convey to locals. Then even that was taken away, making it even harder to explain. We have to be accountable and cannot wipe the slate clean. We just have to move forward.

R.Richardson: Added that, while what they came up with five years ago was fair, it could be improved. Let's look at the data to see if it is the best available. Census data and metro area boundaries were used and that should be correct.

M.Wade: We will look at the data, and try to stay on task and, as suggested by the TxDOT Administration, consider congestion as an added factor.

B.Appleton: Bob Appleton explained that there are three basic groups of discussion. 1) Allocation, 2) corridor prioritization-we're not telling local areas how they can spend their money-let them address that, and 3) scheduling. Safety is a big issue too, but congestion beats it out 2 to 1 in a straw vote.

W.Dennis: Wayne Dennis stated that he had been in scheduling since 1989 (on loan at first). I appreciate the concept of starting over. It was easier as funds were growing and planning was optimistic. I appreciate your attitude of working together to face the challenges.

## **BREAK**

### **IV. Possible Congestion Factor Process – Tim Lomax (Attachment E, Page 40)**

M.Wade: After the break, Wade introduced Dr. Tim Lomax, TTI, to discuss how to factor congestion into the Category 3 formula.

T. Lomax: We have developed a basic approach to include congestion for your consideration. You could use the same philosophy as used in the Mobility Plans. This would focus on congested locations by estimating the level of congested travel above a threshold. We will show you a method of computing the level for different thresholds by use of VMT above the threshold. The data is organized by either urban or rural areas and separated by county. The congestion levels were based on Quality of Flow values and the Urban Mobility Report. “Freeways” includes tollways, and street capacities are based on being divided facilities.

The congestion factor considered for inclusion in the Category 2 and 3 formula allocations was based on the Texas Mobility plan process used during the period from 2003 to 2007. That process examined the needed capacity improvements to achieve mobility goals by focusing on the locations with serious congestion. That same philosophy was used with the Category 2 and 3 data by identifying road sections with traffic volume per lane values in excess of the congestion threshold. The process is described below.

1. The allocation process will use congested vehicle-miles of travel as the performance measure. The amount of congested VMT will be summed in each MPO area (the same area used in other factors of the Category 2 and 3 processes).
2. TxDOT’s roadway inventory dataset for 2006 was used for demonstration purposes during the working group meetings. The current dataset would be appropriate for calculations of subsequent allocations.
3. The road network was divided into urban and rural roads based on locations of each section. The traffic volumes that indicate congested condition are different depending on location.
4. The road network was characterized as streets or freeways. The streets included principal arterials, minor arterials and frontage roads. The freeway category was comprised of all limited access roads including tollways.
5. The daily volume per lane thresholds used to indicate congestion was estimated from the TxDOT Quality of Flow table. Exhibit 1 presents the values used to identify sections suffering serious congestion (worse than level-of-service F). This target was the chosen threshold as well as the one used in the Mobility Plans. The other two thresholds were presented for comparison purposes.
6. The volume per lane on each section of road was compared to the threshold value to determine which sections were congested.
7. For any section above the congestion threshold, the threshold value was subtracted from the 2006 daily traffic volume per lane to calculate the amount of traffic above the

threshold. This is illustrated as the dark sections of the bar graph for roads I-1, I-3 and US 56 in Exhibit 2.

8. The volume per lane above the threshold was multiplied by the number of lanes and by the section length to calculate the amount of vehicle-miles of travel above the congestion threshold.

9. The vehicle-miles of travel above the congestion threshold were summed for each MPO area and the percentage of the statewide category value calculated for each MPO region.

**Congestion Threshold Values**

<b>Functional Class and Area Type</b>	<b>Functional Class Number (From HPMS)</b>	<b>Eliminate Serious Congestion * (LOS F)</b>	<b>Eliminate Heavy Congestion ** (LOS E-F)</b>	<b>Eliminate Moderate Congestion *** (LOS E)</b>
<b>Urban</b>				
Interstate, Freeway & Tollway	11 & 12	16,000	14,500	13,000
Arterial street	14 & 16	5,500	5,000	4,500
<b>Rural</b>				
Interstate, Freeway & Tollway	01	10,000	9,500	8,000
Highway & Arterial road	02 & 06	4,500	4,000	3,000

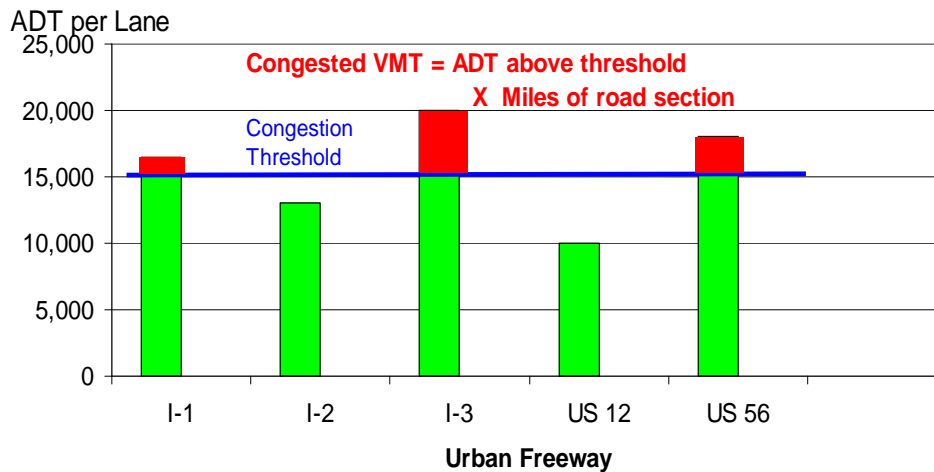
\* Based on TxDOT Quality of Flow Table Average Daily Traffic per Lane values

\*\* Based on 2007 Urban Mobility Report “heavy” congestion values

\*\*\* Based on 2007 Urban Mobility Report “moderate” congestion values

Note: Arterial definitions do not differentiate between divided and undivided; divided arterial standards were used to encourage use of access management techniques.

**Congested Vehicle-Miles of Travel  
(include only "congested" portion of travel)**



Unknown: Is VMT on all major roads included?

T. Lomax: Yes, the congestion problem on those major roads is best indicated by the amount of volume over the threshold, rather than using all the volume on the section. For example, if you have a 6-lane freeway with a daily volume of 110,000, it's the 14,000 above the threshold (16,000 times 6 equals 96,000) that causes the problem. If you use the total volume on congested roads (in this case, 110,000), wider roads will get more weight in the formula, even if they're only slightly congested. So, congested VMT is recommended, not total VMT.

A.Vallejo: Are lane miles from point A to B figured by multiplying distance times number of lanes?

T.Lomax: Yes

A.Vallejo: For Brownsville and Harlingen, we used population split to calculate percentages for each MPO [because they are in the same county].

T.Lomax: We will use that, too.

B.Frawley: Is there a difference in areas because of higher percentages of congested highways?

T.Lomax: Yes, on Interstates 10 and 35. It depends on how you draw thresholds and determine the percentage of congested VMT above the threshold.

D.Plutowski: Can you explain, for instance, why Beaumont-Port Arthur is different?

J.Barton: Should we take out I-35 altogether if it's being dealt with elsewhere? If so, some [congestion] numbers will go down drastically.

B.Appleton: Traffic on I-35 is a combination of regional, state, and national sources and requires multiple sources of funding.

J.Barton: As you calculate the congestion factor, do you want to include I-35 in that factor alone? I ask only because it will skew the numbers.

Robert Allen: Speaking as a Corridor Guidelines Work Group member, asked if congestion going through a metro area which is caused by interregional traffic shouldn't be part of statewide corridor funding, noting that the recommendation from the Corridor Guidelines Work Group was not used. If the need for added capacity is not local, should local funds have to be used to develop it?

Unknown: All major generators should be considered for other funding to take them out of the equation to see how it affects the formula.

R. Richardson: The Commission said I-35 should have six lanes maximum provided by the State and anything more than that should be provided by the local governments. (Editorial Note: This policy was never pursued and is not current Commission perspective). The problem is the connectivity issue. It doesn't matter what the percentage is, the levels will never have enough funds to develop, there is never going to be equality when dealing with I-35 issues.

B.McCaleb: Both Categories 2 & 3 are metro mobility funds. I don't think the money should be spent on these roadways. These funds are for local metro mobility, not statewide mobility.

A.Vallejo: Local funds don't cover Interstates.

B.McCaleb: But that covers main lanes only, not frontage roads.

J.Barton: I agree, for example, that some of the I-10 traffic in Beaumont is locally generated. If we fund these highways from another source, then you could take them out of the equation and spend your funds on other areas.

B.McCaleb: If you take Interstates out, what happens to those areas?

K.Selman: Keith Selman asked if we need to focus on VMT?

R.Redmond: Randy Redmond responded that focus should not be on VMT as much as travel time.

M.Wade: Let's focus on deciding if we want to include congestion and if so, what percent overall, and then run thru scenarios.

K.Selman: Is LOS already in the formula?

J.Peterman: No.

M.Wade: It was in the ranking, but was not a factor. Is congestion a viable or a needed element? Tim, how long would it take to remove all Interstates from the spreadsheet?

T.Lomax: I can take out all urban controlled access highways.

B.McCaleb: Remind us what types of roadways are included.

T.Lomax: Look at this slide showing road systems included. I am trying to use area type, taking out all urban controlled access highway VMT and I will rerun percentages, not specific to I-35 etc. This is a broad look and can't be broken out at this stage. We can go back and take out I-35 but that can't be done here and now

B.Wood: Bob Wood noted that, right now, we don't have definite assurance that the State is going to take care of I-35.

J.Barton: Maybe I clouded this too much. I don't think you should take out I-35 altogether. To answer, yes \$1.2Bil is set aside for I-35. How it is going to be handled within metro boundaries I can't say. We set aside entire rural funding for I-35. I just want to make sure you don't put too much weight on I-35 and then find out there is already funding available.

B.Haynie: If the funds are only for I-35, maybe we should look at it only. On the others I'm not sure that locals don't have to pay for improvements. I-35 is a unique funding perspective.

M.Carr: Matt Carr commented that locals know how to avoid congestion on I-35, which creates more congestion elsewhere. I can't see where you should take I-35 out and drop the funding for that area.

K.Selman: We should look at taking I-35 out of the funding while we are here, if possible.

C.Evilia: Chris Evlia pointed out that if more than six lanes on I-35 are needed in their area, they must use Category 3 funds to pay for it.

B.Correa: Beth Correa added that traffic off of I-35 affects other areas heavily.

M.Wade: If you do include congestion, you need to give us an idea about how you want it to be considered. ***A show of hands confirmed that congestion should be included.***

Now we can run additional data. You have agreed that the next model should take I-35 out so we can look at that the results. We can look at other equations and think regional and statewide, not locally right now. Let's think as a group about what weights we would like to consider.

R.Richardson: Are there any other highways like I-35 that should be pulled out?

Unknown: There was some discussion about I-10 in the Beaumont area and whether it had similar issues to I-35 in the Waco area.

J.Barton: One example of unique funding is the Katy freeway through Houston. Considering Category 3 around the state (thinking mainly of congestion), no other roadway comes to mind except in the Laredo area. But again, that's I-35. Only roads that receive special, non-competitive funding should be excluded from the formula. I-35 is a huge issue and is getting a lot of congressional attention right now (and has been for years).

K.Owen: The last time we had issues with details. If we remove I-35 from the congestion equation, does it have to be removed elsewhere?

M.Wade – If we add congestion, you might want to consider removing another factor; for instance, lane miles.

Category 2 proposed a scheme to improve our database by using just information for the metropolitan area itself, not entire counties that are not totally included. They also adjusted other factors.

J.Peterman: Category 2 changed everything at least slightly. They came up with very sophisticated breakdown of percentages in their first formula; then created a second, less complicated formula by rounding those percentages. We can do the same, if needed. Though congestion will only affect VMT above a certain threshold level, the two factors are related.

B.McCaleb: Isn't VMT an indication of congestion?

T.Lomax: We are only proposing to use congestion that is above a threshold limit so you are only using VMT above that threshold.

B.Wood: Why are there two separate factors for lane miles and centerline miles?

B.Appleton: If you have a lot of 2-lane roads, but not lane miles, centerline miles are important (a discussion of which would favor areas like Houston and San Antonio differently and that it seems to be a larger area issue, more than a Category 3 area type issue).

R.Hagquist: Ron Hagquist noted that the Commission doesn't like this. It is regressive, and those who have more get more, and those who have less get less.

M.Wade: Our job is to reach consensus on the factors that make up the distribution equation. "Jokingly" stated: "We cannot make everyone happy, but maybe consensus is just leaving everyone equally unhappy."

B.Frawley: The biggest changes in Category 2 were population and lane miles (both decreased in factor weighting).

M.Carr: Does that mean the higher your population under poverty level gets, the more money is coming into that area?

J.Barton: That is an environmental justice issue.

R.Hagquist: It is a negative factor because they [population under poverty] use more public transit. This factor allows an underserved population sector in the valley to be included, when they might not be factored in otherwise.

W.Dennis: That's why Category 2 tried to use more updated Census estimates in the initial evaluation that we offered you.

M.Wade: Category 2 also tried to use official data, not estimates and not forecasts.

J.Peterman: Category 2 used the most current official data available (slide reference). They decided to work with the TMAs to get the most up-to-date data. And it would be up to Metropolitan Planning Organizations (MPOs) to update the data on their boundaries (VMT, etc).

I have a question for the veterans here today. Regarding the current VMT, Lane miles, and truck VMT, I cannot determine what year that data was from.

Nobody knew the answer to Peterman's question, but Bob Appleton thought it was pulled from DCIS (2002).

J.Peterman: Category 2 chose to go to MAB limits and to use Census data. They chose not to use State Data Center information, but to use State Data Center growth factors.

R.Hagquist: In the Strategic Planning template, we are required to use State Data Center for our projections.

M.Wade: It would be better to use the same data for Categories 2 and 3 (2007 Census estimate). It can be calculated to a more consistent estimate of MAB.

B.Wood: At populations less than 100,000, they can use an estimate of an estimate.

M.Wade: Year 2000 counts could be used, but areas that have grown a lot may not want to do that.

***Boundary and population estimate discussion.***

***Show of hands regarding using 2000 Census data? 13 - yes / 9 - no***

J.Peterman: Category 2 chose Census data over State Data Center because the Census was supposed to have better numbers.

B.McCaleb: Some areas include an entire county population when they only cover a small area.

B.Frawley: Category 2 agreed to calculate the section they actually include and only factor in that portion.

M.Wade: We aren't suggesting using anything outside the MAB.

B.McCaleb: Then we have to use the 2000 Census data

B.Frawley: You would have to extrapolate the data and be honest. Multiply your 2000 population by the percentage of county area included in the MAB.

R.Allen: Anything other than 2000 data is estimating from estimates and not accurate.

***Another vote on using 2000 Census data by 2007 MAB area: 13 – yes and 12 – No, thus no consensus was reached.***

***Discussion about how MPOs calculate adjacent population.*** Each MPO in Category 2 is going to come up with their figures and present them to the rest of Work group, so things remain transparent and everyone can agree. Using the MAB is going to help some and hurt others.

K.Owen: You could take your 2000 MAB data and apply your growth rate from the 2007 estimate to the main county only. This would only be an estimate.

B.Wood: Our area is growing by 25 percent.

B.McCaleb: We need to make allowances for Sherman/Denison.

***On a third vote, consensus was reached at 10 yes to 5 no, with agreement to use K.Owen's suggestion above and adjust expanded boundaries if needed.***

(See Peterman Note on what data will be needed from MPOs).

**LUNCH**

J.Barton: TxDOT, CTR and TTI are assisting the 2030 Advisory Committee in determining the needs of Texas in terms of transportation on a broad scope. Public hearings will be held around the State: El Paso Aug 7 at 4 pm; Houston Aug. 14, etc. More information will be available through TEMPO. TxDOT is currently working with TEMPO to determine future funding scenarios for you to use. If anyone has any thoughts or ideas, I suggest you take them to TEMPO: Dan Kessler or Chris Evilia.

C.Evilia: We're looking at a couple of models used in the Houston area. We haven't had a lot of room to look at much yet. There is a meeting tomorrow at Riverside [TxDOT building].

R.Hagquist: The State Auditor looked at TxDOT activity and the lack of uniformity. The information was gathered together quickly. The study, commissioned on assumptions about fuel economy, was conducted by Cambridge Systematics in the form of scenarios. The study looks at market penetration and technology. The bottom line is the huge range of possibilities out to 2030 for fleet and mileage. Increases in fuel efficiency, etc. might cause revenues to go down. They hope to reach a reasonable assumption about what can be done.

#### **V. Evaluation of Individual Elements Weighting Factors for Category 3 Distribution Equation – Work Group**

T.Lomax: Showed the adjusted table after removing I-35 (Attachment F, Page 69 - see red figures). Waco is reduced significantly and Killeen/Temple drops; all others go up. Beaumont/Port Arthur goes up quite a bit, overall.

M.Wade: Do you (the Work group) want to try to reach a consensus on centerline miles?

B.Frawley: Does anyone want to delete a factor from our old formula?

R.Miller: I don't see the need for [Incapacitating] crashes.

B.Wood: Does it reflect on your congestion?

K.Selman: I agree the two are interrelated, and we may not need both.

B.Frawley: Category 2 decided to keep safety because that is a focus of TxDOT.

B.Wood: Maybe we could take some percentage points (weighting) off both of them.

T.Muno: If you round the numbers, you'll get 4 points to apply to a new factor or redistribute.

R.Richardson: Do population and congestion go together?

B.Frawley: In some areas, yes.

R.Hagquist: Category 2 asked the same thing. The reason we kept population was because legislators look at population. We tried to consider all the factors in terms of being able to explain them to legislators.

R.Richardson: If you don't have population you shouldn't have congestion.

B.Frawley: Theoretically yes, but congestion is not always dependent so much on local population.

R.Miller: Congestion is really traffic on your system. Different types of traffic, lane miles, population, etc. Population is just one factor. But we need to be cognizant that we don't double-count the same factors.

B.Frawley: Category 2 looked at this as well and chose to break out truck VMT, but it had no effect.

***Consensus was reached to include congestion to some degree-all participants were in agreement.***

B.Frawley: I would like to ask you to write down a percentage for the weight you think congestion should have. Don't show it to anyone, but everyone hold them up simultaneously. Most responses were roughly between 5-10 percent with some outliers.

Now, let's take T.Muno's suggestion to round (or smooth) all the weighting percentages for the other factors in the equation and take the remaining 4 percent and apply that to congestion.

At this point calculations were made to tweak the numbers for the first demo, rounding and smoothing all percentages, and putting the remaining 4 percent into a congestion factor in the equation.

K.Petr: Kenneth Petr noted there were still problems with lane miles. I think that was added more for areas like Houston, and maybe it shouldn't be weighted as heavily.

T.Lomax: Actually Houston didn't want as much weighting toward lane miles in Category 2.

R.Miller: Having lane miles and centerline are redundant and I don't see the point in having both. Do away with one or both factors.

J.Dewitt: John Dewitt stated that their district [Abilene] benefits from having lane miles. Our area is more corridor-driven.

C.Evilia: We are charged to make an equitable formula, so maybe we should have a [funding distribution] floor that no area can sink below: maybe 2.5-3 percent?

B.Frawley: Regarding lane miles vs centerline miles, most of these are 2-lane with a few exceptions. Lane miles don't give anyone a big advantage.

T.Muno: What was the thinking behind adding twice as much emphasis on lane miles vs center line miles?

J.Barton: Everyone in Category 2 put in the numbers that were best for their area and they averaged the numbers to come up with these figures.

R.Hagquist: It looks odd to have weightings on both factors. It puts too much weight on the mileage of your network. Congestion is lower than population.

B.Dickinson: The majority of the original work group saw benefits to one or the other, so we kept both. Maybe we should reduce both lanes miles and centerline miles and put the difference on congestion.

K.Petr: The population factor is similar to lane miles. Take out mileage and estimate a floor percent as C.Evilia suggested.

K.Owen: In the past, this formula seemed to level the playing field. We had an old way, in which we (Longview) didn't get a dime for congestion because we were no competition to Houston and Dallas. We did get some consideration under this formula and we felt it was fair.

M.Carr: I like the idea K.Petr brought up that allows for a percentage going to all areas. Take out both mileages and estimate a floor for the lower percentage areas. Bring factors to meet those percentages.

M.Wade: The original group chose to include what they did because one of their charges was the geographic distribution of funds.

T.Muno: If you set both mileages equally, you would think they'd be more equal. Mileage is the one factor that isn't going to change dramatically or suddenly.

M.Carr: Is there a factor in here that takes into account one area that has concentrated congestion and another one that has it spread out all over? Can we put in a factor of congestion per lane mile?

T.Lomax: The proposed congestion determination process analyzes all roads by segment, in order to consider congestion.

K.Selman: I don't know that what we have is broken and should be thrown out. Lots of effort went into reaching these numbers, and they had a lot of information in front of them.

B.McCaleb: About 90 percent of the original group's time was spent on the corridor prioritization approach, not on this formula. The factors of the equation were dictated at the last minute and we assigned percentage weights to them.

L.LaSut/B.Frawley: Linda LaSut and B.Frawley pointed out that Population Below Poverty was included by the original Category 3 group to help the Rio Grande Valley.

R.Miller: I think it (Population Below Poverty) is more important than lane miles.

B.Frawley: Are you suggesting that we lower or remove center line miles; or put both at 8 percent and make congestion 8 percent as well?

M.Carr and others discussed that congestion is relative for different areas.

R.Miller: I just want to be able to take care of some overpasses with safety issues, but we (Victoria) don't compare in percent of safety concerns to other areas.

C.Evilia: Regarding setting a floor, if we guarantee 2.5 percent, a dollar amount is already assigned, and then you just have the rest of Category 3 to calculate.

B.Frawley: Once you get an idea of what you want to see equitably, you can tweak the percent all you want and it's not going to change things very much. This was confirmed in the Category 2 Work Group.

R.Miller: Lane miles are in there for rehabilitation, not for building. I would feel better defending it to anyone with less lane miles.

R.Richardson: Can we run some scenarios?

***Consensus votes***

*Setting floor for smaller areas? Discussion about setting a floor (and taking out center line or lane miles or both). After the 2010 Census, there may be 3-4 new MPOs.*

***There was general consensus that setting a minimum floor should be considered after the results of the 2010 Census are known. If new MPOs are added that fall under that floor, then reconfiguring the equation might be desirable.***

***Concluded to use updated data – 2000 Census MABs updated by growth factors as previously discussed.***

**BREAK**

*Scenarios (Attachment G, Page 46):*

J.Peterman: These are the latest percentages: congestion percent without I-35 and without 2007 Census updates. San Angelo is slightly better, and Beaumont-Port Arthur improved the most at more than 20 percent.

B.Frawley: Does anyone see any other changes that need to be made?

M.Wade: If you want to apply changes, it should be easy to look at various other scenarios.

**Work Group trials (changing percentages/weightings and running scenarios):**

*Remove center line miles (6% to 0%) and move weight to congestion (9% to 15%).*

*Remove lane miles (8% to 0%) and move weight to truck VMT (14% to 22%)*

*Lower truck VMT from 22% to 15%, total VMT to 25% and crashes to 12%*

*Raise congestion to 20% and drop total VMT to 20%*

*Discussion regarding one reason for the percentages changing so much in some areas is because the base data was updated. These are not the true, accurate numbers because all the factors cannot be calculated here, today since we do not have those figures available.*

B.McCaleb: Can we look at these changes based on the old formula? Can we go back and use the original formula based on population and take out lane miles to see how the numbers compare to get a better idea of the direct impact?

M.Wade: Since you have elected to use total VMT inside your MAB, you will not be able to use your model. That will have to come from TPP Data Management section who can, with some work, lay this out and calculate the data.

**Work Group trials:**

*Bryan, Waco, Beaumont lost because they are the entire county. Sherman/Dennison lost because they are small anyway.*

*Smooth out the percentages, and move 4 percent to congestion.*

*Take off center line miles and lane miles, and add to congestion (21%).*

*Results were not acceptable.*

*Take 17 percent from congestion (moved from lane mileage) and spread out.*

*Zero out congestion, and proportionally add weight to other factors except lane miles & centerline miles.*

*Discussion about adding percentage of area of counties partially included in MABs to VMT to get a better idea of the correct amounts. This will not correct population, and the number will still be a rough estimate. Will this be close enough for most? For Sherman/Denison (and for all) we will use 100 percent for major county.*

**Time of day reaches 5:00 pm**

M.Wade: We need to come up with this equation before we leave here tomorrow. If there is money that becomes available for allocation, we need to have a new formula in place so the old formula doesn't have to be used. *We will stay until we adjust the percentages of the counties in the MABs. Everyone agreed.*

***Workgroup: Each MPO representative provided a verbal estimate of percentages that should be used when estimating factor criteria for counties that are partially covered by MABs.***

M.Wade: We can now use the percentages of these counties for the criteria to run thru scenarios to determine weightings and report to you tomorrow morning.

**End August 5 meeting at 5:15 p.m.**

**August 6, 8:30 a.m.**

**VI. Develop Recommendations for Report to TxDOT Administration – Work Group**

***Work Group Trials:***

B.Frawley and J.Peterman: Reviewed results of adjusting MAB boundaries as discussed the day before, comparing 2000 MAB to 2007 updated MAB data except population, which remained same as 2000 Census. J.Peterman made minor adjustments to some percentages based on MAB population compared to Census county population to try to smooth the extreme gains and losses.

Longview dropped the most, so the group tried adding back Rusk and Upshur Counties to see if that made a difference. There was no significant difference, and discussion followed regarding the possibility that new VMT was greatly decreased, because it dropped in all the areas across the board.

It was not clear what caused the drop in overall VMT. It could be changes in ADT used to make the calculations. VMT was checked and compared, and found not to be the cause. Population was checked and was not the cause, nor were lane miles, center line miles, etc.

It was noted that original percentages for Tyler and Longview may have been switched. Correcting them seemed to take care of the immediate issue with Longview.

***All agreed that these percentages are acceptable to run scenarios.***

B.McCaleb: Requested that we only look at factors and not percentages and focus on the purpose of this process - to develop mobility.

K.Owen: Agreed with concept but felt we need to keep track of how much things are changing.

J.Peterman: Compromised by hiding column B: original percentages. Rounded off original formula percentages, bringing 4 percent back into congestion [as was done the previous day].

***Motion was made to accept this weighting, and seconded. B.Frawley asked if there was any discussion. The understanding was that these numbers are for preliminary analyses at this time.***

B.Dickinson: Regarding removal of center line and lane miles with congestion considered to be 5-10 percent; R.Hagquist said legislators think it looks odd to have congestion lower than lane and center line miles.

***M.Wade: This brings us back to the discussion on the motion. The second to the motion is withdrawn and the motion was withdrawn. No further discussion was held on the original motion.***

A.Vallejo: Proposed that percentages of 2, 5, 8, 10, 20, 8, 13, 8, and 8 be used, respectively.

B.Appleton: We discussed these weightings at the MPO meetings. Some things can be planned for and some just happen. We tried to assign weight accordingly so congestion is assigned higher weight than crashes because crashes happen and congestion can be planned for.

M.Owens: What is Alfonso Vallejo's reasoning behind his spread?

A.Vallejo: To bring lane miles, center line miles and congestion to the same percent. Balance the overall picture of traffic.

R.Hagquist: As a non-voting member, I want to offer an alternative way other than this trial and error with variables. The other bottom line is how much change can you accept? If everyone can agree what changes can be accepted, and have opinions as to what weightings should be in terms of explaining to a legislator, this can eliminate some or all of this trial and error using an excel program. Made reference to Category 2 having done this.

M.Wade: Pointed out that Category 2 managed to reach a level that members were able "to live with," but were not necessarily happy with. (See comment, bottom of P. 10)

B.Frawley: Reminded group that yesterday's "blind" poll showed that an average congestion level acceptable is 5-10 percent.

K.Owen: Reminded group that congestion is relative to each area.

C.Evilia: Right now we're still using Category 3 funds, and we don't know what the Commission will do. One scenario is that I-35 may be funded from other sources; however, some may have to pay for improvements in their areas. We don't know.

Unknown: Right now we're focusing just on the formula. By the time the money is available that decision will be made and will bring everyone down proportionally.

K.Selman: J.Barton told us that, so it carries some weight. (Barton was not present the second day.)

R.Richardson: I-35 is not considered part of Category 3.

A.Vallejo: Only three areas in Category 3 are affected, and we should remove I-35.

B.Frawley: Any thoughts on adjusting the equations any more?

M.Wade: ***Do you want to keep congestion? Group agreed, Yes.*** What other factors do you want to keep?

B.McCaleb: I suggest we lower population below poverty level to 4 percent and move extra (12 percent) to congestion.

J.Peterman: Notes this will bring up Killeen-Temple, Sherman-Denison and Bryan-College Station.

J.Peterman: In response to requests to look at column results for different scenarios next to one another, adjusted the tables in order to do so.

As work group members suggested various scenarios, Peterman entered those percentages into the spreadsheet and showed the results. The following table summarizes the six scenarios that were suggested and discussed.

Scenario	Pop	Pop Below Poverty	Incap Crashes	Total VMT	Lane Miles	Truck VMT	Center Line Miles	Congestion
1	26	8	10	22	11	13	6	4
2	25	8	10	20	8	13	8	8
3	25	4	10	20	8	13	8	12
4	25	4	10	20	8	15	8	10
5	25	5	10	25	0	10	0	25
6	20	9	10	20	8	15	8	10

**B.McCaleb: Moved to accept Scenario #4, E'lisa Smetana seconded the motion, and discussion followed.**

A.Vallejo: I think Scenario #6 is better. In #4, population below poverty is too low.

B.McCaleb: Poverty percent doesn't change much, and doesn't affect mobility. Besides, there are other programs that address poverty.

R.Redmond: Poverty still increases in scenario #4, and is more equitable across all areas.

Robert Allen: This will have a contingency to deal with I-35?

Unknown: The formula will be set, but the allocations will be made. I-35 will be included or not in congestion based on the Commission's funding decisions for the Interstate.

R.Richardson: Ron, do you think this is a comfortable scenario to present to legislature?

R.Hagquist: Yes, it seems okay.

M.Beaver: Michael Beaver asked if any factors are redundant.

R.Hagquist: Yes, but they are so low-weighted that it really doesn't matter. They are included for equity purposes and are defensible.

M.Beaver: I agree with Ron.

***Vote on scenario 4. One opposed (K.Selman), all others agree and it passes.***

## **VII. Establish Process and Time Schedule for Report Review and Approval by Work Group**

***All agreed that all data input will be based on the Metropolitan Area Boundaries (MABs) of each MPO.***

Unknown: How are we going to get MAB population?

W.Dennis: MPOs are responsible for coming up with an estimate of the population in your MAB. They come up with a number and TPP will validate.

B.McCaleb: I suggest instead of all of us doing the work and having Austin check, that Austin should do the work.

***W.Dennis: We need each MPO to send Jenny Peterman, David Plutowski or me (Wayne Dennis) their MAB populations. They should be based on the 2000 Census, updated with State Data Center Growth Rate (through its 2007 estimate). Each MPO should also send an official MAB to them [Peterman and Plutowski]. They [Peterman and Plutowski] can review and prepare a Minute Order to the Commission. We have those files but we want to double check by what you send us to estimate your total VMT.***

K.Selman: But you will use what the Commission approved.

W.Dennis: Yes, but we want to make sure our files are up to date without going back and having to pull up each file you have sent to us previously. ***You send a shape file to me [Wayne Dennis], send your population estimates, etc. to Peterman and Plutowski.***

R.Richardson: MPOs will give population data values based on 2007 State Data Center growth rate applied to 2000 Census MAB population.

J.Peterman: ***I will send out an email to all the MPOs with specific directions on what exactly to send and to whom.*** I will try to send the email out tomorrow (8/7/08) and give two weeks to get that information back to me. Once we get the data from the MPOs we will apply it to the formula we established today, and let you know what we end up with.

M.Wade: ***We will get the notes of the meeting typed up and distributed for comment.***

K.Owen: ***I would like to remind everyone of three rules we agreed to, regarding future accountability of the programming and scheduling process:***

- 1) *Never wipe the slate clean*
- 2) *Cap project estimates and require local area to provide cost overruns or some similar provision.*
- 3) *Accountability - How will an MPO project be handled if there's a road block? How do they get back into the queue? Category 2 recommended the trade fair process, maintaining accountability.*

W.Dennis: J.Peterman and D.Plutowski have been looking at cost estimates and comparing them with programmed funding amounts.

K.Owen: I don't agree to go into future allocations, Jenny said you have the option to work through DCIS asking them to write it in, saying that the local area has to come up with cost overrun amount.

Unknown: Each MPO's allocation has to cover all the costs, but if there are other sources they should be utilized.

K.Owen: There has to be a checks and balances system, so the other MPOs are not hurt by an imbalance.

***Relevant question from Category 2 Work Group included here for information:***

*E.Collins: When will these changes be implemented?*

*W.Dennis: It is my understanding that any change in the distribution equation would not be used when the next UTP program of work is prepared. It is my understanding that the new equation will be used when new money is found. We are not sure when that will*

*occur, so this time is indefinite. Assuming that the UTP will be updated before the end of the current legislative session, and assuming that new money will not be found until after the session, I think it is safe to assume that the new formula will not be used on the 2009 UTP. We are focusing beyond the current UTP toward the next one. As you know, the Department has tried to pare numbers back to funding levels of what is available. Consideration of use of Proposition 12 money may allow mobility funds to be available sooner than previously anticipated. If the legislature allows Prop 12 money to be used, these new equations could be used for that distribution of funds.*

**Meeting ended.**

ATTACHMENT A

**PROPOSED AGENDA**  
**UTP Category 3 Work Group Meeting**  
**August 5 (8:30 am until 5:00 pm) and August 6 (8:30 am until noon)**  
**Embassy Suites North – Austin**

*m-wade tti fn=c:/UTP/agenda 8.5.08(2)*

- I.** Charge and Comments to Work Group – John Barton
  
- II.** Background – Bill Frawley
  
- III.** Review Past Category 3 Allocation Formula and Category 2 New Allocation Formula Factors – Bill Frawley, Montie Wade, and David Plutowski
  
- IV.** Possible Congestion Factor Process – Tim Lomax
  
- V.** Evaluation of Individual Elements Weighting Factors for Category 3 Distribution Equation – Work Group
  
- VI.** Develop Recommendations for Report to TxDOT Administration – Work Group
  
- VII.** Establish Process and Time Schedule for Report Review and Approval by Work Group

# ATTACHMENT B

## ATTENDEE ROSTER & CONTACT INFO UTP Category 3 Work Group Meeting August 5-6, 2008 Embassy Suites North – Austin

Last Name	First Name	Agency	Position	Email	Phone
Allen	Robert	Abilene MPO	Director	<a href="mailto:robert.allen@abilenetx.com">robert.allen@abilenetx.com</a>	325-676-6243
Appleton	Bob	TxDOT-BRY	TP&D	<a href="mailto:bapplet@dot.state.tx.us">bapplet@dot.state.tx.us</a>	979-778-9707
Barton	John	TxDOT-ADM	Assistant Executive Director	<a href="mailto:jbarto1@dot.state.tx.us">jbarto1@dot.state.tx.us</a>	512-305-9504
Beaver	Michael	TxDOT-WF	District Design/Bridge Engineer	<a href="mailto:mbeaver@dot.state.tx.us">mbeaver@dot.state.tx.us</a>	940-720-7752
Beckham	Dennis	TxDOT	Director, TP&D	<a href="mailto:dbeckham@dot.state.tx.us">dbeckham@dot.state.tx.us</a>	903-237-1062
Burke	Maria	TxDOT-DES	Director, Field Coordination	<a href="mailto:mburke@dot.state.tx.us">mburke@dot.state.tx.us</a>	512-416-2703
Carr	Matt	TxDOT ODA	District Design Engineer	<a href="mailto:Mcarr@dot.state.tx.us">Mcarr@dot.state.tx.us</a>	432-498-4761
Cordova	Jose	HSBMPO	GIS Analyst/Planner	<a href="mailto:jcordova@myharlingen.us">jcordova@myharlingen.us</a>	952-216-5240
Correa	Beth	CTCOG/KTUTS	Regional Planner	<a href="mailto:bcorrea@ctcoog.org">bcorrea@ctcoog.org</a>	254-770-2376
Court	Carol	TTI	Sr. Office Associate	<a href="mailto:c-court@tamu.edu">c-court@tamu.edu</a>	817-462-0532
Dennis	Wayne	TxDOT-TPP	Deputy Director-TPP	<a href="mailto:wdennis@dot.state.tx.us">wdennis@dot.state.tx.us</a>	512-436-5004
DeWitt	John	TxDOT	Director, TP&D	<a href="mailto:jdewitt@dot.state.tx.us">jdewitt@dot.state.tx.us</a>	325-947-9265
Dickenson	Bob	SETRPC	MPO Director	<a href="mailto:bdickenson@setrpc.com">bdickenson@setrpc.com</a>	409-899-8442
Evilia	Chris	Waco MPO	Director	<a href="mailto:cevilia@ci.waco.tx.us">cevilia@ci.waco.tx.us</a>	254-750-5666
Filippini	Tony	Tyler Area MPO	Planner	<a href="mailto:ffilippini@tvlertexas.com">ffilippini@tvlertexas.com</a>	903-531-1175
Frawley	Bill	TTI-Arlington	Research Scientist	<a href="mailto:w-frawley@tamu.edu">w-frawley@tamu.edu</a>	817-462-0533
Hagquist	Ron	TxDOT	Researcher	<a href="mailto:rhagquis@dot.state.tx.us">rhagquis@dot.state.tx.us</a>	512-416-2343
Haynie	Blair	TxDOT	TP&D	<a href="mailto:bhaynie@dot.state.tx.us">bhaynie@dot.state.tx.us</a>	325-676-6810
LaSut	Linda	BCS MPO	Director	<a href="mailto:llasut@bcsmmpo.org">llasut@bcsmmpo.org</a>	979-260-5298
Lomax	Tim	TTI-College Station	Research Engineer	<a href="mailto:t-lomax@tamu.edu">t-lomax@tamu.edu</a>	979-845-9960
Lujan	Phillip	TxDOT-BMT	Director, TP&D	<a href="mailto:plujan1@dot.state.tx.us">plujan1@dot.state.tx.us</a>	409-789-5740
Mackey	Ricky	TxDOT-Paris	Adv. Planning Engineer	<a href="mailto:rmackey@dot.state.tx.us">rmackey@dot.state.tx.us</a>	903-737-9375
McCaleb	Brad	TXK MPO	Study Director	<a href="mailto:Mccaleb@txkusa.org">Mccaleb@txkusa.org</a>	903-798-3927
Miller	Ray	Victoria MPO	Director	<a href="mailto:rmiller@victoriatx.org">rmiller@victoriatx.org</a>	361-485-3360
Muno	Travis	Amarillo MPO	Senior Transportation Planner	<a href="mailto:travis.muno@amarillo.gov">travis.muno@amarillo.gov</a>	806-378-4219
Owen	Karen	Longview MPO	Director	<a href="mailto:kowen@ci.longview.tx.us">kowen@ci.longview.tx.us</a>	903-237-1062
Owens	Melba	MOTOR MPO	Executive Director	<a href="mailto:mowens@motormpo.com">mowens@motormpo.com</a>	432-617-0129 / 1004
Peterman	Jenny	TxDOT	Strategic Planning Specialist	<a href="mailto:jpeterm@dot.state.tx.us">jpeterm@dot.state.tx.us</a>	512-486-5017
Petr	Kenneth	TxDOT	TP&D	<a href="mailto:kpetr@dot.state.tx.us">kpetr@dot.state.tx.us</a>	806-356-3202
Plutowski	David	TxDOT	Transportation Engineer	<a href="mailto:dplutow@dot.state.tx.us">dplutow@dot.state.tx.us</a>	512-486-5043
Redmond	Randy	TxDOT-Tyler	Director, TP&D	<a href="mailto:rredmon@dot.state.tx.us">rredmon@dot.state.tx.us</a>	903-510-4296
Richardson	Henry (Reggie)	TxDOT-Waco	Director, TP&D	<a href="mailto:hrichar@dot.state.tx.us">hrichar@dot.state.tx.us</a>	254-867-2730
Russell	Phillip	TxDOT-ADM	Assistant Executive Director	<a href="mailto:prussel@dot.state.tx.us">prussel@dot.state.tx.us</a>	512-305-9506
Selman	Keith	Laredo MPO	Director	<a href="mailto:sselman@ci.laredo.tx.us">sselman@ci.laredo.tx.us</a>	956-794-1613
Smetana	E'Lisa	San Angelo MPO	Director	<a href="mailto:elisa.smetana@sanangelotexas.us">elisa.smetana@sanangelotexas.us</a>	325-481-2800
Vallejo	Alfonso	Brownville MPO	Planner	<a href="mailto:avallejo@cob.us">avallejo@cob.us</a>	956-548-6150
Wade	Montie	TTI	Ser. Research Engineer/Prog. Mngr.	<a href="mailto:montie-wade@tamu.edu">montie-wade@tamu.edu</a>	817-462-0531
Wood	Bob	Sherman-Denison MPO	Transportation Director	<a href="mailto:rwood@sdmmpo.org">rwood@sdmmpo.org</a>	903-813-3534

## Category 3 Funding Allocations

### Background – First 5 Years

William E. Frawley, AICP  
Texas Transportation Institute

## The History

- Corridor Guidelines Workgroup (CGWG) met in 2002
  
- Developed charges for each category
  - Rural (Category 4)
  - **Small Urbanized (Category 3)**
  - Large Urbanized (Category 2)

## The Charge

- Develop a Funding Distribution for the 17 non-TMAs
- Create Three 5-Year Increments of Projects

## The Team

- TxDOT Divisions
  - TPP
  - DES
  - Other Guest Presentations
  - TxDOT Districts
- MPOs (non-TMAs)

## The Team

- Districts
  - Various positions
- MPOs
  - Staff directors
  - Policy committee members
- One vote per entity

## The Process

- Eight Workshops – 2002-2003
- E-mail discussions between workshops
- Criteria subcommittees
- Group had common interest in making sure each MPO would receive equitable distribution

## The CGWG Issues

- Traffic Engineering Issues
  - Traffic volumes
  - Vehicle miles traveled
  - Travel time/delay
  - Level of service/capacity/access management
  - Safety
  - Percent trucks

## The CGWG Issues

- Financial Issues
  - Economic development
  - Leveraging and/or tolls
  - Benefit-cost
- Special Significance Issues
  - International traffic/ports of entry
  - Military or national security installations
  - Tourism and/or recreational areas
  - Major freight routes
  - Air quality/conformity

## The CGWG Issues

- Connectivity Issues
  - Closing system gaps
  - Connect with principal roadways from adjacent states
  - Intermodal connectivity
  - Fit with other TxDOT development
  - Maximize the use of existing transportation system

## Geographic Funding Fairness

- Workgroup recognized importance of ensuring that each area would receive equitable funding
- Workgroup went through several iterations of how to distribute funds
  - Rounds of discussion and voting

## Geographic Funding Fairness

- Workgroup nominated and disqualified criteria
- Several straw poll votes
- Developed final list of criteria
- Voted on weighting scale
  - Each entity voted with percentage they wanted for each criteria
  - Averages used to develop final weightings

## Funding Distribution Criteria

- Total VMT – 22%
- Truck VMT – 15%
- Population – 26%
- Centerline Miles (on-system) – 6%
- Lane Miles (on-system) – 11%
- Accident Rate – 11%
- Population Below Poverty Level – 9%

## Corridor Weighting Criteria

- Subcommittee reports
- Straw polls and consensus votes
- Workgroup came to consensus on criteria weighting using 100-point scale (cumulative for all criteria)
- Discussion of financial variables

## Corridor Criteria, Weightings, and Formulas

- Traffic – 45 points
- Connectivity – 27 points
- Financial – 13 points
- Special Significance – 15 points

## Traffic – 45 Points

- Traffic – 15 points x (Corridor Segment Adjusted AADT/Highest Adjusted AADT of all Urban Corridor Segments)
- Level of Service – 20 points x LOS Factor
  - LOS factor
    - LOS < C = 0
    - LOS C = 0.25
    - LOS D = 0.50
    - LOS E = 0.75
    - LOS F = 1.00
  - LOS of main lane of corridor segment as derived from Highway Capacity Manual methodology; most current year data are to be used*
- Safety – 10 points x (Corridor Segment Accident Rate/Statewide Average Accident Rate for Similar Facility) – 1.0
  - Minimum 0 points; maximum 10 points; segment has to be at least twice the state rate to receive maximum points*
  - Average is a 3-year moving average*

## Connectivity – 27 Points

- Closing system gaps
    - 10 points + {5 points x [1-(Corridor Segment Gap Length/Corridor Length0]}
  - Maximize use of existing system
    - 5 points, if the project is not an added capacity project
  - Connect with principal roadways
    - 4 points, if the project connects to or is part of the NHS or Texas Trunk System
  - Intermodal connectivity
    - 3 points, if the project serves an airport, rail yard, public transportation facility, or seaport
- District or MPO will certify intermodal facility is served by corridor segment and has a direct physical connection with the facility.*

## Financial – 13 Points

- **Cost**

7 pts x  $\frac{\text{Lowest Corridor Segment Cost/Adjusted VMT of Lowest Corridor Segment}}{\text{Subject Corridor Segment Cost/Adjusted VMT of Subject Corridor Segment}}$

- **External Leveraging**

6 points, based on percentage of construction cost

1 point – 10.00-14.00%

2 points – 15.00-19.99%

3 points – 20.00-24.99%

4 points – 25.00-29.99%

5 points – 30.00-34.99%

6 points – >35.00%

*Numerator: PS&E, ROW, Cash, Mitigation, environmental, construction*

*Denominator: Estimated Segment Construction Cost*

*External leverage applies to that dollar amount which is above that which is required by TAC Section 15.5.5(b)*

## Special Significance – 15 Points

- 5 points  
if a USDOT-designated NAFTA or trade corridor
- 3.5 points  
if connects to a port of entry with US Customs or INS facilities (within 5 miles)
- 2.5 points  
if serves a military or national security installation (within 5 miles)
- 2 points  
if a USDOT, USDOE, or TxDOT-designated hazardous materials route
- 2 points  
if a TxDOT-designated hurricane evacuation route

## Corridor List Recommendation

- Final result of workgroup efforts
- Three 5-increments groups
  - Increments – not years
- Corridors – not projects

## Other Results

- Two members submitted dissenting comments

## Category 3 Work Group

**David Plutowski, P.E.**

TxDOT

Finance Division

Programming & Scheduling Section

dplutow@dot.state.tx.us

## Category 3 - Urban Area (Non-TMA) Corridor Projects

### **17 MPOs**

- Abilene MPO
- Amarillo MPO
- Brownsville MPO
- Bryan-College Station MPO
- Harlingen-San Benito MPO
- Killeen-Temple MPO
- Laredo MPO
- Longview MPO
- Midland-Odessa MPO
- San Angelo MPO
- Sherman-Denison MPO
- Southeast Texas Regional Planning Commission (Beaumont)
- Texarkana MPO
- Tyler MPO
- Victoria MPO
- Waco MPO
- Wichita Falls MPO

## Discussion Items

1. **Old Category 3 Allocation Formula**
2. **Factors for New Category 3 Allocation Formula**

## Old Category 3 Allocation Formula

- Total (On & Off-System) Vehicle Miles Traveled (VMT) **22%**
- On-System Truck VMT **15%**
- Population (MPO Planning Boundary) **26%**
- On-System Centerline Miles **6%**
- On-System Lane Miles **11%**
- Fatal & Incapacitating Accident Rate **11%**
- Percent of Population Under the Federal Poverty Level **9%**

## Old Category 3 Allocation Formula

- On & Off-System VMT <sup>1,3</sup>
- On-System Truck VMT <sup>1,3</sup>
- Population (MPO Planning Boundary) <sup>1,3</sup>
- On-System Centerline Miles <sup>1,3</sup>
- On-System Lane Miles <sup>1,3</sup>
- Fatal & Incapacitating Accident Rate (MVMT) <sup>2,4</sup>
- Percent of Population Under the Federal Poverty Level <sup>2,5</sup>

<sup>1</sup> Data captured within MPO Planning Boundary.

<sup>2</sup> Data captured for entire county(ies) which the MPO touches.

<sup>3</sup> Data provided by the TPP Division - Traffic Analysis Section.

<sup>4</sup> Data provided by the Traffic Operations Division.

<sup>5</sup> Data obtained from the 2000 U.S. Census.

## Old Category 3 Allocation Formula

MPO	2003 Calculated %
Abilene	4.112%
Amarillo	6.706%
Brownsville	5.497%
Bryan-College Station	5.347%
Harlingen-San Benito	5.718%
Killeen-Temple	7.668%
Laredo	4.897%
Longview	6.274%
Midland-Odessa	7.174%
San Angelo	2.338%
SE TX Regional Planning Commission (Beaumont - JOHRTS)	15.627%
Sherman-Denison	4.077%
Texarkana	2.700%
Tyler	5.065%
Victoria	3.874%
Waco	9.503%
Wichita Falls	3.424%
<b>Total</b>	<b>100.000%</b>

## Factors of New Category 3 Allocation Formula

- Total (On & Off-System) Vehicle Miles Traveled (VMT)
- On-System Truck VMT
- Population (MPO Planning Boundary)
- Congestion - NEW
- On-System Lane Miles
- Fatal & Incapacitating Accident Rate
- Percent of Population Under the Federal Poverty Level

## Factors of New Category 3 Allocation Formula

- Total (On & Off-System) Vehicle Miles Traveled (VMT) - ?%
- On-System Truck VMT - ?%
- Population (MPO Planning Boundary or 2007 Census Estimate or 2007 State Data Estimate) - ?%
- Congestion - NEW - ?%
- On-System Lane Miles - ?%
- Fatal & Incapacitating Accident Rate - ?%
- Percent of Population Under the Federal Poverty Level - ?%

## Congestion Factor in New Category 3 Allocation Formula

- [Tim Lomax \(TTI\)](#) will discuss next

## Category 3 Work Group

### Congestion Factor Consideration

Tim Lomax, TTI  
t-lomax@tamu.edu

## Basic Philosophy

- Similar to Urban Mobility Plans
- Focus on congested locations
- Estimate the amount of congested travel
- Factor:
  - Amount of travel above congestion threshold
  - Vehicle-miles of travel on all major roads
  - Organize by urban/rural & County

## How Was Congestion Criteria Developed?

- Congestion levels based on TxDOT Quality of Flow values and Urban Mobility Report
- “Freeways” includes tollways (assumes electronic toll collection)
- “Streets” – Based on divided streets

## What Road Systems Are Included?

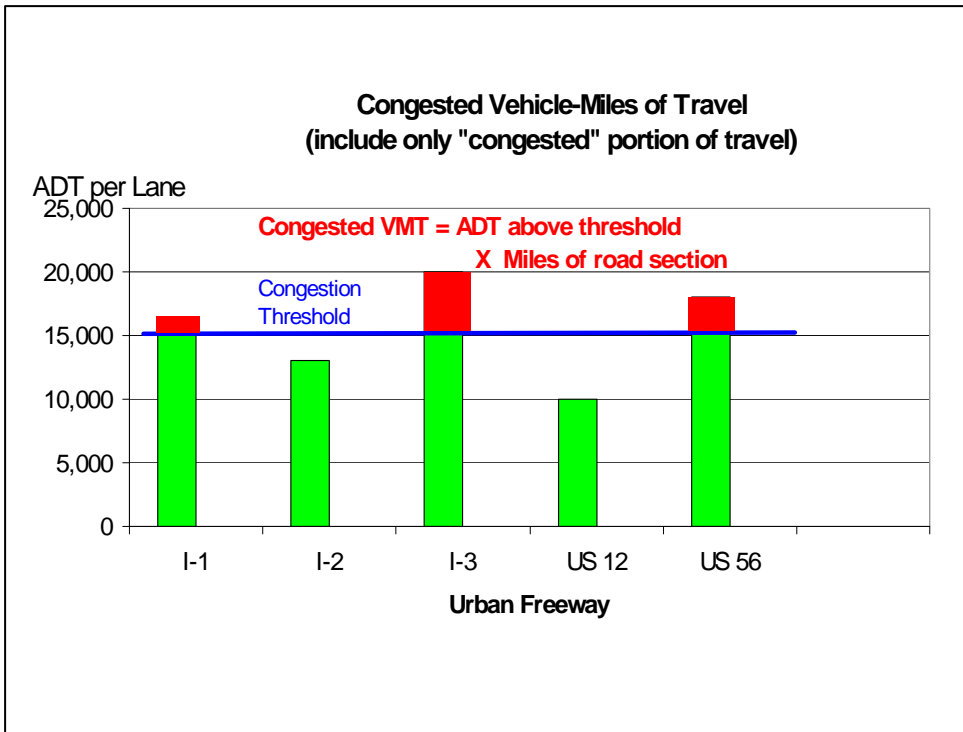
- All jurisdictions
- Roads within Metro Area Boundary
- All limited access roads
  - Freeways, Tollways
- All major streets
  - Principal arterials
  - Minor arterials
  - Frontage roads
  - Divided, undivided, two-way left turns, etc.

## Congestion Levels (ADT per lane)

Road & Area	HPMS FC #	Serious (LOS F)	Heavy (LOS E-F)	Moderate (LOS E)
<b>Urban</b>				
Frwy	11,12	16,000	14,500	13,000
Street	14,16	5,500	5,000	4,500
<b>Rural</b>				
Frwy	01	10,000	9,000	8,000
Street	02,06	4,500	4,000	3,500

## Congestion Level Targets (ADT per lane)

Road & Area	HPMS FC #	Extreme (LOS BAD)	Severe (LOS F+)	Serious (LOS F)
<b>Urban</b>				
Frwy	11,12	25,000	20,000	16,000
Street	14,16	10,000	8,000	5,500
<b>Rural</b>				
Frwy	01	15,000	12,500	10,000
Street	02,06	7,500	6,000	4,500



## Serious Congestion (LOS F) Category 3 Percentages

- |                  |        |                 |        |
|------------------|--------|-----------------|--------|
| • Abilene        | 2.63%  | • Mid-Odessa    | 1.75%  |
| • Amarillo       | 2.38%  | • San Angelo    | 0.04%  |
| • Beau-PA-Orng   | 15.13% | • Sher-Denison  | 6.27%  |
| • Brownsville    | 7.91%  | • Texarkana     | 0.46%  |
| • Bryan-Coll Sta | 9.52%  | • Tyler         | 5.76%  |
| • Harlin-San Ben | 6.00%  | • Victoria      | 1.35%  |
| • Killeen-Temple | 19.16% | • Waco          | 12.53% |
| • Laredo         | 6.85%  | • Wichita Falls | 0.29%  |
| • Longview       | 1.97%  |                 |        |

## Heavy Congestion (LOS E-F) Category 3 Percentages

• Abilene	2.26%	•Mid-Odessa	2.05%
• Amarillo	2.57%	•San Angelo	0.05%
• Beau-PA-Orng	16.43%	•Sher-Denison	5.43%
• Brownsville	7.12%	•Texarkana	0.82%
• Bryan-Coll Sta	8.99%	•Tyler	6.75%
• Harlin-San Ben	5.40%	•Victoria	1.44%
• Killeen-Temple	18.22%	•Waco	13.02%
• Laredo	6.33%	•Wichita Falls	0.49%
• Longview	2.64%		

## Moderate Congestion (LOS E) Category 3 Percentages

• Abilene	1.87%	•Mid-Odessa	2.37%
• Amarillo	2.91%	•San Angelo	0.11%
• Beau-PA-Orng	16.72%	•Sher-Denison	4.87%
• Brownsville	6.41%	•Texarkana	1.34%
• Bryan-Coll Sta	8.20%	•Tyler	7.41%
• Harlin-San Ben	4.87%	•Victoria	1.86%
• Killeen-Temple	17.29%	•Waco	13.32%
• Laredo	5.62%	•Wichita Falls	0.88%
• Longview	3.95%		

## Category 3 Work Group

### Congestion Factor Consideration Updated slides

Tim Lomax, TTI  
t-lomax@tamu.edu

### Serious Congestion (LOS F) Cat 3 %ages & No I-35 %ages

• Abilene	2.63%	3.09	•Mid-Odessa	1.75%	2.05
• Amarillo	2.38%	2.80	•San Angelo	0.04%	0.05
• Be-PA-Or	15.13%	17.77	•Sher-Denison	6.27%	7.36
• Brnsville	7.91%	9.29	•Texarkana	0.46%	0.54
• BryCll Sta	9.52%	11.19	•Tyler	5.76%	6.77
• Har-S Ben	6.00%	7.05	•Victoria	1.35%	1.58
• Kil-Temple	19.16%	17.40	•Waco	12.53%	2.85
• Laredo	6.85%	7.54	•Wichita Falls	0.29%	0.34
• Longview	1.97%	2.31			

Please add this to the bottom of the slide >> Note: Red values represent percentage of congested VMT if I-35 is not included in calculation.

ATTACHMENT G – SCENARIO SUMMARY

	ORIGINAL 2003 Calculated Percentage	2003 Weights with New Data Percentage	1	2	3	4	5	6
Abilene	4.112%	4.860%	4.799%	4.736%	4.722%	4.758%	4.300%	4.723%
Amarillo	6.706%	6.383%	6.231%	6.061%	5.968%	6.038%	5.396%	5.916%
Beaumont (JOHRTS)	15.627%	13.968%	14.216%	14.470%	14.825%	14.696%	16.120%	14.566%
Brownsville	5.497%	5.478%	5.676%	5.911%	5.808%	5.665%	6.787%	6.003%
Bryan-College Station	5.347%	5.185%	5.486%	5.799%	6.014%	5.834%	7.217%	5.926%
Harlingen-San Benito	5.718%	4.465%	4.599%	4.768%	4.647%	4.544%	5.357%	4.854%
Killeen-Temple	7.668%	8.167%	8.351%	8.503%	8.797%	8.735%	9.526%	8.476%
Laredo	4.897%	5.225%	5.279%	5.343%	5.240%	5.203%	5.547%	5.317%
Longview	5.065%	5.076%	4.934%	4.799%	4.718%	4.799%	4.323%	4.823%
Midland-Odessa	7.174%	8.781%	8.521%	8.254%	8.048%	8.172%	7.048%	8.129%
San Angelo	2.338%	3.004%	2.891%	2.772%	2.666%	2.701%	2.036%	2.670%
Sherman-Denison	4.077%	3.926%	4.046%	4.186%	4.379%	4.313%	4.542%	4.282%
Texarkana	2.700%	3.159%	3.053%	2.932%	2.877%	2.964%	2.288%	2.893%
Tyler	6.274%	6.762%	6.755%	6.758%	6.846%	6.861%	6.800%	6.845%
Victoria	3.874%	3.279%	3.225%	3.142%	3.124%	3.164%	2.761%	3.125%
Waco	9.503%	8.628%	8.410%	8.175%	8.019%	8.189%	7.275%	8.160%
Wichita Falls	3.424%	3.656%	3.529%	3.391%	3.304%	3.364%	2.674%	3.293%
Total -	100.000%	100.000%	100.000%	100.000%	100.000%	100.000%	100.000%	100.000%
2000 Census Population of MAB			26.0%	25.0%	25.0%	25.0%	25.0%	20.0%
2007 Population Below Poverty Level			8.0%	8.0%	4.0%	4.0%	5.0%	9.0%
2007 Crashes			10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
2007 Total VMT Traveled (o&osystem)			21.0%	20.0%	20.0%	20.0%	25.0%	20.0%
2007 Lane Miles (on system)			11.0%	8.0%	8.0%	8.0%	0.0%	8.0%
2007 Truck VMT			14.0%	13.0%	13.0%	15.0%	10.0%	15.0%
2007 Centerline Miles			6.0%	8.0%	8.0%	8.0%	0.0%	8.0%
2006 Congestion			4.0%	8.0%	12.0%	10.0%	25.0%	10.0%
			100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Not Selected								
	2003 Weights with New Data Percentage	This Scenario	difference between column C & D	% change	TEST Formula		Original (2003) Formula	original % change
					Factor	%	%	
Abilene	4.860%	4.723%	-0.14	-2.82%				24.86%
Amarillo	6.383%	5.916%	-0.47	-7.31%	2000 Census Population of MAB	20.0%	26.40%	-6.45%
Beaumont (JOHRTS)	13.968%	14.566%	0.60	4.28%	2007 Population Below Poverty Level	9.0%	8.60%	-25.54%
Brownsville	5.478%	6.003%	0.53	9.60%	2007 Crashes	10.0%	10.70%	34.74%
Bryan-College Station	5.185%	5.926%	0.74	14.29%	2007 Total VMT Traveled (o&osystem)	20.0%	21.90%	-19.38%
Harlingen-San Benito	4.465%	4.854%	0.39	8.72%	2007 Lane Miles (on system)	8.0%	11.10%	22.43%
Killeen-Temple	8.167%	8.476%	0.31	3.78%	2007 Truck VMT	15.0%	14.70%	25.36%
Laredo	5.225%	5.317%	0.09	1.75%	2007 Centerline Miles	8.0%	6.60%	7.52%
Longview	5.076%	4.823%	-0.25	-4.99%	2006 Congestion	10.0%		13.31%
Midland-Odessa	8.781%	8.129%	-0.65	-7.42%	Total	100.00%	100.00%	1.01%
San Angelo	3.004%	2.670%	-0.33	-11.11%				13.78%
Sherman-Denison	3.926%	4.282%	0.36	9.06%				-11.26%
Texarkana	3.159%	2.893%	-0.27	-8.43%				31.90%
Tyler	6.762%	6.845%	0.08	1.23%				18.20%
Victoria	3.279%	3.125%	-0.15	-4.70%				-30.55%
Waco	8.628%	8.160%	-0.47	-5.42%				-25.24%
Wichita Falls	3.656%	3.293%	-0.36	-9.93%				-1.13%
Total -	100.000%	100.000%	0.000%					

Not Selected								
	2003 Weights with New Data Percentage	This Scenario	difference between column C & D	% change	TEST Formula		Original (2003) Formula	original % change
					Factor	%	%	
Abilene	4.860%	4.723%	-0.14	-2.82%				24.86%
Amarillo	6.383%	5.916%	-0.47	-7.31%	2000 Census Population of MAB	20.0%	26.40%	-6.45%
Beaumont (JOHRTS)	13.968%	14.566%	0.60	4.28%	2007 Population Below Poverty Level	9.0%	8.60%	-25.54%
Brownsville	5.478%	6.003%	0.53	9.60%	2007 Crashes	10.0%	10.70%	34.74%
Bryan-College Station	5.185%	5.926%	0.74	14.29%	2007 Total VMT Traveled (o&osystem)	20.0%	21.90%	-19.38%
Harlingen-San Benito	4.465%	4.854%	0.39	8.72%	2007 Lane Miles (on system)	8.0%	11.10%	22.43%
Killeen-Temple	8.167%	8.476%	0.31	3.78%	2007 Truck VMT	15.0%	14.70%	25.36%
Laredo	5.225%	5.317%	0.09	1.75%	2007 Centerline Miles	8.0%	6.60%	7.52%
Longview	5.076%	4.823%	-0.25	-4.99%	2006 Congestion	10.0%		13.31%
Midland-Odessa	8.781%	8.129%	-0.65	-7.42%	Total	100.00%	100.00%	1.01%
San Angelo	3.004%	2.670%	-0.33	-11.11%				13.78%
Sherman-Denison	3.926%	4.282%	0.36	9.06%				-11.26%
Texarkana	3.159%	2.893%	-0.27	-8.43%				31.90%
Tyler	6.762%	6.845%	0.08	1.23%				18.20%
Victoria	3.279%	3.125%	-0.15	-4.70%				-30.55%
Waco	8.628%	8.160%	-0.47	-5.42%				-25.24%
Wichita Falls	3.656%	3.293%	-0.36	-9.93%				-1.13%
Total -	100.000%	100.000%	0.000%					

Not Selected								
	2003 Weights with New Data Percentage	This Scenario	difference between column C & D	% change	TEST Formula		Original (2003) Formula	original % change
					Factor	%	%	
Abilene	4.860%	4.300%	-0.56	-11.51%				24.86%
Amarillo	6.383%	5.396%	-0.99	-15.46%	2000 Census Population of MAB	25.0%	26.40%	-6.45%
Beaumont (JOHRTS)	13.968%	16.120%	2.15	15.40%	2007 Population Below Poverty Level	5.0%	8.60%	-25.54%
Brownsville	5.478%	6.787%	1.31	23.90%	2007 Crashes	10.0%	10.70%	34.74%
Bryan-College Station	5.185%	7.217%	2.03	39.19%	2007 Total VMT Traveled (o&osystem)	25.0%	21.90%	-19.38%
Harlingen-San Benito	4.465%	5.357%	0.89	20.00%	2007 Lane Miles (on system)	0.0%	11.10%	22.43%
Killeen-Temple	8.167%	9.526%	1.36	16.64%	2007 Truck VMT	10.0%	14.70%	25.36%
Laredo	5.225%	5.547%	0.32	6.17%	2007 Centerline Miles	0.0%	6.60%	7.52%
Longview	5.076%	4.323%	-0.75	-14.82%	2006 Congestion	25.0%		13.31%
Midland-Odessa	8.781%	7.048%	-1.73	-19.73%	Total	100.00%	100.00%	1.01%
San Angelo	3.004%	2.036%	-0.97	-32.21%				13.78%
Sherman-Denison	3.926%	4.542%	0.62	15.70%				-11.26%
Texarkana	3.159%	2.288%	-0.87	-27.57%				31.90%
Tyler	6.762%	6.800%	0.04	0.56%				18.20%
Victoria	3.279%	2.761%	-0.52	-15.79%				-30.55%
Waco	8.628%	7.275%	-1.35	-15.68%				-25.24%
Wichita Falls	3.656%	2.674%	-0.98	-26.84%				-1.13%
Total -	100.000%	100.000%	0.000%					

Selected	Selected	Selected	Selected	TEST Formula			Original (2003) Formula	original % change
	2003 Weights with New Data Percentage	This Scenario	difference between column C & D	% change	Factor	%	%	
Abilene	4.860%	4.758%	-0.10	-2.09%				24.86%
Amarillo	6.383%	6.038%	-0.34	-5.40%	2000 Census Population of MAB	25.0%	26.40%	-6.45%
Beaumont (JOHRTS)	13.968%	14.696%	0.73	5.21%	2007 Population Below Poverty Level	4.0%	8.60%	-25.54%
Brownsville	5.478%	5.665%	0.19	3.42%	2007 Crashes	10.0%	10.70%	34.74%
Bryan-College Station	5.185%	5.834%	0.65	12.51%	2007 Total VMT Traveled (o&osystem)	20.0%	21.90%	-19.38%
Harlingen-San Benito	4.465%	4.544%	0.08	1.77%	2007 Lane Miles (on system)	8.0%	11.10%	22.43%
Killeen-Temple	8.167%	8.735%	0.57	6.95%	2007 Truck VMT	15.0%	14.70%	25.36%
Laredo	5.225%	5.203%	-0.02	-0.41%	2007 Centerline Miles	8.0%	6.60%	7.52%
Longview	5.076%	4.799%	-0.28	-5.44%	2006 Congestion	10.0%		13.31%
Midland-Odessa	8.781%	8.172%	-0.61	-6.93%	Total	100.00%	100.00%	1.01%
San Angelo	3.004%	2.701%	-0.30	-10.09%				13.78%
Sherman-Denison	3.926%	4.313%	0.39	9.85%				-11.26%
Texarkana	3.159%	2.964%	-0.19	-6.17%				31.90%
Tyler	6.762%	6.861%	0.10	1.46%				18.20%
Victoria	3.279%	3.164%	-0.11	-3.50%				-30.55%
Waco	8.628%	8.189%	-0.44	-5.08%				-25.24%
Wichita Falls	3.656%	3.364%	-0.29	-7.99%				-1.13%
Total	100.000%	100.000%	0.000%					

Not Selected								
	2003 Weights with New Data Percentage	This Scenario	difference between column C & D	% change	TEST Formula		Original (2003) Formula	original % change
Abilene	4.860%	4.722%	-0.14	-2.84%	Factor	%	%	24.86%
Amarillo	6.383%	5.968%	-0.42	-6.51%	2000 Census Population of MAB	25.0%	26.40%	-6.45%
Beaumont (JOHRTS)	13.968%	14.825%	0.86	6.14%	2007 Population Below Poverty Level	4.0%	8.60%	-25.54%
Brownsville	5.478%	5.808%	0.33	6.03%	2007 Crashes	10.0%	10.70%	34.74%
Bryan-College Station	5.185%	6.014%	0.83	15.98%	2007 Total VMT Traveled (o&osystem)	20.0%	21.90%	-19.38%
Harlingen-San Benito	4.465%	4.647%	0.18	4.08%	2007 Lane Miles (on system)	8.0%	11.10%	22.43%
Killeen-Temple	8.167%	8.797%	0.63	7.71%	2007 Truck VMT	13.0%	14.70%	25.36%
Laredo	5.225%	5.240%	0.01	0.28%	2007 Centerline Miles	8.0%	6.60%	7.52%
Longview	5.076%	4.718%	-0.36	-7.05%	2006 Congestion	12.0%		13.31%
Midland-Odessa	8.781%	8.048%	-0.73	-8.34%	Total	100.00%	100.00%	1.01%
San Angelo	3.004%	2.666%	-0.34	-11.25%				13.78%
Sherman-Denison	3.926%	4.379%	0.45	11.53%				-11.26%
Texarkana	3.159%	2.877%	-0.28	-8.93%				31.90%
Tyler	6.762%	6.846%	0.08	1.24%				18.20%
Victoria	3.279%	3.124%	-0.15	-4.72%				-30.55%
Waco	8.628%	8.019%	-0.61	-7.05%				-25.24%
Wichita Falls	3.656%	3.304%	-0.35	-9.62%				-1.13%
Total	100.000%	100.000%	0.000%					

Not Selected								
	2003 Weights with New Data Percentage	This Scenario	difference between column C & D	% change	TEST Formula		Original (2003) Formula	original % change
Abilene	4.860%	4.736%	-0.12	-2.56%	Factor	%	%	24.86%
Amarillo	6.383%	6.061%	-0.32	-5.05%	2000 Census Population of MAB	25.0%	26.40%	-6.45%
Beaumont (JOHRTS)	13.968%	14.470%	0.50	3.59%	2007 Population Below Poverty Level	8.0%	8.60%	-25.54%
Brownsville	5.478%	5.911%	0.43	7.92%	2007 Crashes	10.0%	10.70%	34.74%
Bryan-College Station	5.185%	5.799%	0.61	11.84%	2007 Total VMT Traveled (o&osystem)	20.0%	21.90%	-19.38%
Harlingen-San Benito	4.465%	4.768%	0.30	6.79%	2007 Lane Miles (on system)	8.0%	11.10%	22.43%
Killeen-Temple	8.167%	8.503%	0.34	4.12%	2007 Truck VMT	13.0%	14.70%	25.36%
Laredo	5.225%	5.343%	0.12	2.25%	2007 Centerline Miles	8.0%	6.60%	7.52%
Longview	5.076%	4.799%	-0.28	-5.46%	2006 Congestion	8.0%		13.31%
Midland-Odessa	8.781%	8.254%	-0.53	-5.99%	Total	100.00%	100.00%	1.01%
San Angelo	3.004%	2.772%	-0.23	-7.71%				13.78%
Sherman-Denison	3.926%	4.186%	0.26	6.62%				-11.26%
Texarkana	3.159%	2.932%	-0.23	-7.18%				31.90%
Tyler	6.762%	6.758%	0.00	-0.06%				18.20%
Victoria	3.279%	3.142%	-0.14	-4.15%				-30.55%
Waco	8.628%	8.175%	-0.45	-5.25%				-25.24%
Wichita Falls	3.656%	3.391%	-0.27	-7.25%				-1.13%
Total	100.000%	100.000%	0.000%					

Not Selected									
	2003 Weights with New Data Percentage	This Scenario	difference between column C & D	% change	TEST Formula			Original (2003) Formula	original % change
					Factor	%	%		
Abilene	4.860%	4.799%	-0.06	-1.26%				24.86%	
Amarillo	6.383%	6.231%	-0.15	-2.38%	2000 Census Population of MAB	26.0%	26.40%	-6.45%	
Beaumont (JOHRTS)	13.968%	14.216%	0.25	1.77%	2007 Population Below Poverty Level	8.0%	8.60%	-25.54%	
Brownsville	5.478%	5.676%	0.20	3.62%	2007 Crashes	10.0%	10.70%	34.74%	
Bryan-College Station	5.185%	5.486%	0.30	5.81%	2007 Total VMT Traveled (o&osystem)	21.0%	21.90%	-19.38%	
Harlingen-San Benito	4.465%	4.599%	0.13	3.01%	2007 Lane Miles (on system)	11.0%	11.10%	22.43%	
Killeen-Temple	8.167%	8.351%	0.18	2.25%	2007 Truck VMT	14.0%	14.70%	25.36%	
Laredo	5.225%	5.279%	0.05	1.03%	2007 Centerline Miles	6.0%	6.60%	7.52%	
Longview	5.076%	4.934%	-0.14	-2.79%	2006 Congestion	4.0%		13.31%	
Midland-Odessa	8.781%	8.521%	-0.26	-2.96%	Total	100.00%	100.00%	1.01%	
San Angelo	3.004%	2.891%	-0.11	-3.76%				13.78%	
Sherman-Denison	3.926%	4.046%	0.12	3.05%				-11.26%	
Texarkana	3.159%	3.053%	-0.11	-3.34%				31.90%	
Tyler	6.762%	6.755%	-0.01	-0.11%				18.20%	
Victoria	3.279%	3.225%	-0.05	-1.64%				-30.55%	
Waco	8.628%	8.410%	-0.22	-2.52%				-25.24%	
Wichita Falls	3.656%	3.529%	-0.13	-3.48%				-1.13%	
Total	100.000%	100.000%	0.000%						

Not Selected								
	2003 Weights with New Data Percentage	This Scenario	difference between column C & D	% change	TEST Formula			Original (2003) Formula
					Factor	%	%	
Abilene	5.134%	4.473%	-0.66%	-12.87%				
Amarillo	6.274%	6.232%	-0.04%	-0.66%	2000 Census Population of MAB	30%	26.40%	
Beaumont (JOHRTS)	11.635%	12.335%	0.70%	6.01%	2007 Population Below Poverty Level	12%	8.60%	
Brownsville	7.407%	7.903%	0.50%	6.70%	2007 Crashes	14%	10.70%	
Bryan-College Station	4.311%	4.560%	0.25%	5.80%	2007 Total VMT Traveled (o&osystem)	26%	21.90%	
Harlingen-San Benito	7.000%	7.441%	0.44%	6.30%	2007 Lane Miles (on system)	0%	11.10%	
Killeen-Temple	9.612%	9.485%	-0.13%	-1.33%	2007 Truck VMT	18%	14.70%	
Laredo	5.265%	5.556%	0.29%	5.52%	2007 Centerline Miles	0%	6.60%	
Longview	7.109%	6.290%	-0.82%	-11.52%	2006 Congestion	0%		
Midland-Odessa	7.246%	7.290%	0.04%	0.60%	Total	100.00%	100.00%	
San Angelo	2.661%	2.434%	-0.23%	-8.50%				
Sherman-Denison	3.618%	3.438%	-0.18%	-4.97%				
Texarkana	3.561%	3.369%	-0.19%	-5.39%				
Tyler	5.987%	6.078%	0.09%	1.53%				
Victoria	2.690%	2.584%	-0.11%	-3.97%				
Waco	7.105%	7.300%	0.20%	2.75%				
Wichita Falls	3.385%	3.231%	-0.15%	-4.55%				
Total	100.000%	100.000%	0.000%					

Not Selected									
	CURRENT 2003 Calculated Percentage	zeroed out ci miles & lane miles	difference	% change	TEST Formula			Current (2003) Formula	original % change
					Factor	%	%		
Abilene	4.112%	4.473%	0.361%	8.792%				24.856%	
Amarillo	6.706%	6.232%	-0.474%	-7.070%	2000 Census Population of MAB	30%	26.40%	-6.448%	
Beaumont (JOHRTS)	15.627%	12.335%	-3.292%	-21.068%	2007 Population Below Poverty Level	12%	8.60%	-25.542%	
Brownsville	5.497%	7.903%	2.406%	43.769%	2007 Crashes	14%	10.70%	34.740%	
Bryan-College Station	5.347%	4.560%	-0.787%	-14.713%	2007 Total VMT Traveled (o&osystem)	26%	21.90%	-19.385%	
Harlingen-San Benito	5.718%	7.441%	1.723%	30.139%	2007 Lane Miles (on system)	0%	11.10%	22.428%	
Killeen-Temple	7.668%	9.485%	1.817%	23.697%	2007 Truck VMT	18%	14.70%	25.358%	
Laredo	4.897%	5.556%	0.659%	13.452%	2007 Centerline Miles	0%	6.60%	7.520%	
Longview	6.274%	6.290%	0.016%	0.262%	2006 Congestion	0%		13.313%	
Midland-Odessa	7.174%	7.290%	0.116%	1.619%	Total	100.00%	100.00%	1.008%	
San Angelo	2.338%	2.434%	0.096%	4.102%				13.779%	
Sherman-Denison	4.077%	3.438%	-0.639%	-15.672%				-11.259%	
Texarkana	2.700%	3.369%	0.669%	24.789%				31.901%	
Tyler	5.065%	6.078%	1.013%	20.006%				18.202%	
Victoria	3.874%	2.584%	-1.290%	-33.304%				-30.549%	
Waco	9.503%	7.300%	-2.203%	-23.180%				-25.237%	
Wichita Falls	3.424%	3.231%	-0.193%	-5.635%				-1.132%	
Total	100.000%	100.000%	0.000%						

	CURRENT 2003 Calculated Percentage	NEW 2008 Calculated Percentage	difference	% change	TEST Formula		Current (2003) Formula a	original % change
					Factor	%		
Abilene	4.112%	4.344%	0.232%	5.645%				24.856%
Amarillo	6.706%	5.911%	<b>-0.795%</b>	<b>-11.858%</b>	2000 Census Population of MAB	28%	26.40%	<b>-6.448%</b>
Beaumont (JOHRTS)	15.627%	12.918%	<b>-2.709%</b>	<b>-17.335%</b>	2007 Population Below Poverty Level	10%	8.60%	<b>-25.542%</b>
Brownsville	5.497%	7.959%	2.462%	44.791%	2007 Crashes	12%	10.70%	34.740%
Bryan-College Station	5.347%	5.233%	<b>-0.115%</b>	<b>-2.142%</b>	2007 Total VMT Traveled (o&osystem)	24%	21.90%	<b>-19.385%</b>
Harlingen-San Benito	5.718%	7.304%	1.586%	27.743%	2007 Lane Miles (on system)	0%	11.10%	22.428%
Killeen-Temple	7.668%	10.319%	2.651%	34.579%	2007 Truck VMT	16%	14.70%	25.358%
Laredo	4.897%	5.745%	0.848%	0.848%	2007 Centerline Miles	0%	6.60%	7.520%
Longview	6.274%	5.863%	<b>-0.410%</b>	<b>-6.542%</b>	2006 Congestion	10%		13.313%
Midland-Odessa	7.174%	6.783%	<b>-0.391%</b>	<b>-5.445%</b>	Total	100.00%	100.00%	1.008%
San Angelo	2.338%	2.208%	<b>-0.130%</b>	<b>-5.570%</b>				13.779%
Sherman-Denison	4.077%	3.829%	<b>-0.248%</b>	<b>-6.081%</b>				<b>-11.259%</b>
Texarkana	2.700%	3.097%	0.397%	14.692%				31.901%
Tyler	5.065%	6.143%	1.078%	21.293%				18.202%
Victoria	3.874%	2.502%	<b>-1.372%</b>	<b>-35.420%</b>				<b>-30.549%</b>
Waco	9.503%	6.884%	<b>-2.619%</b>	<b>-27.562%</b>				<b>-25.237%</b>
Wichita Falls	3.424%	2.958%	<b>-0.466%</b>	<b>-13.601%</b>				<b>-1.132%</b>
Total -	100.000%	100.000%	0.000%					

	CURRENT 2003 Calculated Percentage	NEW 2008 Calculated Percentage	difference	% change	TEST Formula		Current (2003) Formula a	original % change
					Factor	%		
Abilene	4.112%	5.134%	1.022%	24.856%				
Amarillo	6.706%	6.274%	<b>-0.432%</b>	<b>-6.448%</b>	2000 Census Population of MAB	26%	26.40%	
Beaumont (JOHRTS)	15.627%	11.635%	<b>-3.991%</b>	<b>-25.542%</b>	2007 Population Below Poverty Level	9%	8.60%	
Brownsville	5.497%	7.407%	1.910%	34.740%	2007 Crashes	11%	10.70%	
Bryan-College Station	5.347%	4.311%	<b>-1.037%</b>	<b>-19.385%</b>	2007 Total VMT Traveled (o&osystem)	22%	21.90%	
Harlingen-San Benito	5.718%	7.000%	1.282%	22.428%	2007 Lane Miles (on system)	11%	11.10%	
Killeen-Temple	7.668%	9.612%	1.944%	25.358%	2007 Truck VMT	15%	14.70%	
Laredo	4.897%	5.265%	0.368%	7.520%	2007 Centerline Miles	7%	6.60%	
Longview	6.274%	7.109%	0.835%	13.313%	2006 Congestion	0%		
Midland-Odessa	7.174%	7.246%	0.072%	1.008%	Total	100.00%	100.00%	
San Angelo	2.338%	2.661%	0.322%	13.779%				
Sherman-Denison	4.077%	3.618%	<b>-0.459%</b>	<b>-11.259%</b>				
Texarkana	2.700%	3.561%	0.861%	31.901%				
Tyler	5.065%	5.987%	0.922%	18.202%				
Victoria	3.874%	2.690%	<b>-1.183%</b>	<b>-30.549%</b>				
Waco	9.503%	7.105%	<b>-2.398%</b>	<b>-25.237%</b>				
Wichita Falls	3.424%	3.385%	<b>-0.039%</b>	<b>-1.132%</b>				
Total -	100.000%	100.000%	0.000%					

	CURRENT 2003 Calculated Percentage	NEW 2008 Calculated Percentage	difference	% change	TEST Formula		Current (2003) Formula a	original % change
					Factor	%		
Abilene	4.112%	4.880%	0.768%	18.671%				
Amarillo	6.706%	5.753%	<b>-0.953%</b>	<b>-14.217%</b>	2000 Census Population of MAB	23%	26.40%	
Beaumont (JOHRTS)	15.627%	12.510%	<b>-3.116%</b>	<b>-19.943%</b>	2007 Population Below Poverty Level	8%	8.60%	
Brownsville	5.497%	7.714%	2.217%	40.325%	2007 Crashes	10%	10.70%	
Bryan-College Station	5.347%	5.331%	<b>-0.016%</b>	<b>-0.307%</b>	2007 Total VMT Traveled (o&osystem)	15%	21.90%	
Harlingen-San Benito	5.718%	7.024%	1.306%	22.837%	2007 Lane Miles (on system)	8%	11.10%	
Killeen-Temple	7.668%	10.765%	3.097%	40.389%	2007 Truck VMT	13%	14.70%	
Laredo	4.897%	5.657%	0.760%	15.515%	2007 Centerline Miles	8%	6.60%	
Longview	6.274%	6.286%	0.013%	0.202%	2006 Congestion	15%		
Midland-Odessa	7.174%	6.483%	<b>-0.690%</b>	<b>-9.622%</b>	Total	100.00%	100.00%	
San Angelo	2.338%	2.290%	<b>-0.048%</b>	<b>-2.068%</b>				
Sherman-Denison	4.077%	4.196%	0.119%	2.923%				
Texarkana	2.700%	3.129%	0.429%	15.878%				
Tyler	5.065%	6.088%	1.023%	20.194%				
Victoria	3.874%	2.509%	<b>-1.364%</b>	<b>-35.222%</b>				
Waco	9.503%	6.443%	<b>-3.060%</b>	<b>-32.200%</b>				
Wichita Falls	3.424%	2.943%	<b>-0.481%</b>	<b>-14.053%</b>				
Total -	100.000%	100.000%	0.000%					

	CURRENT 2003 Calculated Percentage	zeroed out cl miles & lane miles	difference % change		TEST Formula			Current (2003) Formula a	original % change
					Factor	%	%		
Abilene	4.112%	4.473%	0.361%	8.792%				24.856%	
Amarillo	6.706%	6.232%	<b>-0.474%</b>	<b>-7.070%</b>	2000 Census Population of MAB	30%	26.40%	<b>-6.448%</b>	
Beaumont (JOHRTS)	15.627%	12.335%	<b>-3.292%</b>	<b>-21.068%</b>	2007 Population Below Poverty Level	12%	8.60%	<b>-25.542%</b>	
Brownsville	5.497%	7.903%	2.406%	43.769%	2007 Crashes	14%	10.70%	34.740%	
Bryan-College Station	5.347%	4.560%	<b>-0.787%</b>	<b>-14.713%</b>	2007 Total VMT Traveled (o&osystem)	26%	21.90%	<b>-19.385%</b>	
Harlingen-San Benito	5.718%	7.441%	1.723%	30.139%	2007 Lane Miles (on system)	0%	11.10%	22.428%	
Killeen-Temple	7.668%	9.485%	1.817%	23.697%	2007 Truck VMT	18%	14.70%	25.358%	
Laredo	4.897%	5.556%	0.659%	13.452%	2007 Centerline Miles	0%	6.60%	7.520%	
Longview	6.274%	6.290%	0.016%	0.262%	2006 Congestion	0%		13.313%	
Midland-Odessa	7.174%	7.290%	0.116%	1.619%	Total -	100.00%	100.00%	1.008%	
San Angelo	2.338%	2.434%	0.096%	4.102%				13.779%	
Sherman-Denison	4.077%	3.438%	<b>-0.639%</b>	<b>-15.672%</b>				<b>-11.259%</b>	
Texarkana	2.700%	3.369%	0.669%	24.789%				31.901%	
Tyler	5.065%	6.078%	1.013%	20.006%				18.202%	
Victoria	3.874%	2.584%	<b>-1.290%</b>	<b>-33.304%</b>				<b>-30.549%</b>	
Waco	9.503%	7.300%	<b>-2.203%</b>	<b>-23.180%</b>				<b>-25.237%</b>	
Wichita Falls	3.424%	3.231%	<b>-0.193%</b>	<b>-5.635%</b>				<b>-1.132%</b>	
Total -	100.000%	100.000%	0.000%						

	CURRENT 2003 Calculated Percentage	NEW 2008 Calculated Percentage	difference % change		TEST Formula			Current (2003) Formula a	original % change
					Factor	%	%		
Abilene	4.112%	4.344%	0.232%	5.645%				24.856%	
Amarillo	6.706%	5.911%	<b>-0.795%</b>	<b>-11.858%</b>	2000 Census Population of MAB	28%	26.40%	<b>-6.448%</b>	
Beaumont (JOHRTS)	15.627%	12.918%	<b>-2.709%</b>	<b>-17.335%</b>	2007 Population Below Poverty Level	10%	8.60%	<b>-25.542%</b>	
Brownsville	5.497%	7.959%	2.462%	44.791%	2007 Crashes	12%	10.70%	34.740%	
Bryan-College Station	5.347%	5.233%	<b>-0.115%</b>	<b>-2.142%</b>	2007 Total VMT Traveled (o&osystem)	24%	21.90%	<b>-19.385%</b>	
Harlingen-San Benito	5.718%	7.304%	1.586%	27.743%	2007 Lane Miles (on system)	0%	11.10%	22.428%	
Killeen-Temple	7.668%	10.319%	2.651%	34.579%	2007 Truck VMT	16%	14.70%	25.358%	
Laredo	4.897%	5.745%	0.848%	17.308%	2007 Centerline Miles	0%	6.60%	7.520%	
Longview	6.274%	5.863%	<b>-0.410%</b>	<b>-6.542%</b>	2006 Congestion	10%		13.313%	
Midland-Odessa	7.174%	6.783%	<b>-0.391%</b>	<b>-5.445%</b>	Total -	100.00%	100.00%	1.008%	
San Angelo	2.338%	2.208%	<b>-0.130%</b>	<b>-5.570%</b>				13.779%	
Sherman-Denison	4.077%	3.829%	<b>-0.248%</b>	<b>-6.081%</b>				<b>-11.259%</b>	
Texarkana	2.700%	3.097%	0.397%	14.692%				31.901%	
Tyler	5.065%	6.143%	1.078%	21.293%				18.202%	
Victoria	3.874%	2.502%	<b>-1.372%</b>	<b>-35.420%</b>				<b>-30.549%</b>	
Waco	9.503%	6.884%	<b>-2.619%</b>	<b>-27.562%</b>				<b>-25.237%</b>	
Wichita Falls	3.424%	2.958%	<b>-0.466%</b>	<b>-13.601%</b>				<b>-1.132%</b>	
Total -	100.000%	100.000%	0.000%						

	CURRENT 2003 Calculated Percentage	NEW 2008 Calculated Percentage	difference % change		TEST Formula			Current (2003) Formula a
					Factor	%	%	
Abilene	4.112%	5.134%	1.022%	24.856%				
Amarillo	6.706%	6.274%	<b>-0.432%</b>	<b>-6.448%</b>	2000 Census Population of MAB	26%	26.40%	
Beaumont (JOHRTS)	15.627%	11.635%	<b>-3.991%</b>	<b>-25.542%</b>	2007 Population Below Poverty Level	9%	8.60%	
Brownsville	5.497%	7.407%	1.910%	34.740%	2007 Crashes	11%	10.70%	
Bryan-College Station	5.347%	4.311%	<b>-1.037%</b>	<b>-19.385%</b>	2007 Total VMT Traveled (o&osystem)	22%	21.90%	
Harlingen-San Benito	5.718%	7.000%	1.282%	22.428%	2007 Lane Miles (on system)	11%	11.10%	
Killeen-Temple	7.668%	9.612%	1.944%	25.358%	2007 Truck VMT	15%	14.70%	
Laredo	4.897%	5.265%	0.368%	7.520%	2007 Centerline Miles	7%	6.60%	
Longview	6.274%	7.109%	0.835%	13.313%	2006 Congestion	0%		
Midland-Odessa	7.174%	7.246%	0.072%	1.008%	Total -	100.00%	100.00%	
San Angelo	2.338%	2.661%	0.322%	13.779%				
Sherman-Denison	4.077%	3.618%	<b>-0.459%</b>	<b>-11.259%</b>				
Texarkana	2.700%	3.561%	0.861%	31.901%				
Tyler	5.065%	5.987%	0.922%	18.202%				
Victoria	3.874%	2.690%	<b>-1.183%</b>	<b>-30.549%</b>				
Waco	9.503%	7.105%	<b>-2.398%</b>	<b>-25.237%</b>				
Wichita Falls	3.424%	3.385%	<b>-0.039%</b>	<b>-1.132%</b>				
Total -	100.000%	100.000%	0.000%					

					Not Selected	
	CURRENT 2003 Calculated Percentage	NEW 2008 Calculated Percentage	difference	% change	TEST Formula	Current (2003) Formul a
					Factor	%
Abilene	4.112%	4.880%	0.768%	18.671%		
Amarillo	6.706%	5.753%	<b>-0.953%</b>	<b>-14.217%</b>	2000 Census Population of MAB	23% 26.40%
Beaumont (JOHRTS)	15.627%	12.510%	<b>-3.116%</b>	<b>-19.943%</b>	2007 Population Below Poverty Level	8% 8.60%
Brownsville	5.497%	7.714%	2.217%	40.325%	2007 Crashes	10% 10.70%
Bryan-College Station	5.347%	5.331%	<b>-0.016%</b>	<b>-0.307%</b>	2007 Total VMT Traveled (o&osystem)	15% 21.90%
Harlingen-San Benito	5.718%	7.024%	1.306%	22.837%	2007 Lane Miles (on system)	8% 11.10%
Killeen-Temple	7.668%	10.765%	3.097%	40.389%	2007 Truck VMT	13% 14.70%
Laredo	4.897%	5.657%	0.760%	15.515%	2007 Centerline Miles	8% 6.60%
Longview	6.274%	6.286%	0.013%	0.202%	2006 Congestion	15%
Midland-Odessa	7.174%	6.483%	<b>-0.690%</b>	<b>-9.622%</b>	Total	100.00% 100.00%
San Angelo	2.338%	2.290%	<b>-0.048%</b>	<b>-2.068%</b>		
Sherman-Denison	4.077%	4.196%	0.119%	2.923%		
Texarkana	2.700%	3.129%	0.429%	15.878%		
Tyler	5.065%	6.088%	1.023%	20.194%		
Victoria	3.874%	2.509%	<b>-1.364%</b>	<b>-35.222%</b>		
Waco	9.503%	6.443%	<b>-3.060%</b>	<b>-32.200%</b>		
Wichita Falls	3.424%	2.943%	<b>-0.481%</b>	<b>-14.053%</b>		
Total -	100.000%	100.000%	0.000%			

					Not Selected	
	CURRENT 2003 Calculated Percentage	NEW 2008 Calculated Percentage	difference	% change	TEST Formula	Current (2003) Formul a
					Factor	%
Abilene	4.112%	4.223%	0.112%	2.713%		
Amarillo	6.706%	5.593%	<b>-1.113%</b>	<b>-16.602%</b>	2000 Census Population of MAB	25% 26.40%
Beaumont (JOHRTS)	15.627%	13.515%	<b>-2.112%</b>	<b>-13.514%</b>	2007 Population Below Poverty Level	8% 8.60%
Brownsville	5.497%	7.959%	2.461%	44.776%	2007 Crashes	12% 10.70%
Bryan-College Station	5.347%	5.873%	0.526%	9.835%	2007 Total VMT Traveled (o&osystem)	20% 21.90%
Harlingen-San Benito	5.718%	7.125%	1.408%	24.619%	2007 Lane Miles (on system)	0% 11.10%
Killeen-Temple	7.668%	11.129%	3.461%	45.141%	2007 Truck VMT	15% 14.70%
Laredo	4.897%	5.911%	1.014%	20.706%	2007 Centerline Miles	0% 6.60%
Longview	6.274%	5.539%	<b>-0.735%</b>	<b>-11.708%</b>	2006 Congestion	20%
Midland-Odessa	7.174%	6.294%	<b>-0.880%</b>	<b>-12.265%</b>	Total	100.00% 100.00%
San Angelo	2.338%	1.967%	<b>-0.372%</b>	<b>-15.895%</b>		
Sherman-Denison	4.077%	4.253%	0.176%	4.317%		
Texarkana	2.700%	2.832%	0.132%	4.885%		
Tyler	5.065%	6.262%	1.197%	23.640%		
Victoria	3.874%	2.396%	<b>-1.477%</b>	<b>-38.134%</b>		
Waco	9.503%	6.448%	<b>-3.055%</b>	<b>-32.147%</b>		
Wichita Falls	3.424%	2.680%	<b>-0.744%</b>	<b>-21.722%</b>		
Total -	100.000%	100.000%	0.000%			

					Not Selected	
	CURRENT 2003 Calculated Percentage	NEW 2008 Calculated Percentage	difference	% change	TEST Formula	Current (2003) Formul a
					Factor	%
Abilene	4.112%	4.300%	0.188%	4.571%		
Amarillo	6.706%	5.761%	<b>-0.945%</b>	<b>-14.098%</b>	2000 Census Population of MAB	25% 26.40%
Beaumont (JOHRTS)	15.627%	13.241%	<b>-2.386%</b>	<b>-15.271%</b>	2007 Population Below Poverty Level	8% 8.60%
Brownsville	5.497%	7.881%	2.384%	43.363%	2007 Crashes	12% 10.70%
Bryan-College Station	5.347%	5.537%	0.190%	3.544%	2007 Total VMT Traveled (o&osystem)	25% 21.90%
Harlingen-San Benito	5.718%	7.160%	1.442%	25.219%	2007 Lane Miles (on system)	0% 11.10%
Killeen-Temple	7.668%	10.770%	3.102%	40.457%	2007 Truck VMT	15% 14.70%
Laredo	4.897%	5.742%	0.845%	17.248%	2007 Centerline Miles	0% 6.60%
Longview	6.274%	5.772%	<b>-0.501%</b>	<b>-7.993%</b>	2006 Congestion	15%
Midland-Odessa	7.174%	6.529%	<b>-0.645%</b>	<b>-8.994%</b>	Total	100.00% 100.00%
San Angelo	2.338%	2.075%	<b>-0.263%</b>	<b>-11.262%</b>		
Sherman-Denison	4.077%	4.072%	<b>-0.004%</b>	<b>-0.102%</b>		
Texarkana	2.700%	2.962%	0.262%	9.712%		
Tyler	5.065%	6.255%	1.190%	23.494%		
Victoria	3.874%	2.454%	<b>-1.419%</b>	<b>-36.636%</b>		
Waco	9.503%	6.674%	<b>-2.830%</b>	<b>-29.775%</b>		
Wichita Falls	3.424%	2.816%	<b>-0.608%</b>	<b>-17.746%</b>		
Total -	100.000%	100.000%	0.000%			

	CURRENT 2003 Calculated Percentage	NEW 2008 Calculated Percentage	difference	% change	Not Selected		
					TEST Formula		Current (2003) Formul a
					Factor	%	%
Abilene	4.112%	4.324%	0.212%	5.153%			
Amarillo	6.706%	5.714%	<b>-0.992%</b>	<b>-14.790%</b>	2000 Census Population of MAB	25%	26.40%
Beaumont (JOHRTS)	15.627%	13.096%	<b>-2.531%</b>	<b>-16.196%</b>	2007 Population Below Poverty Level	8%	8.60%
Brownsville	5.497%	7.765%	2.268%	41.259%	2007 Crashes	10%	10.70%
Bryan-College Station	5.347%	5.437%	0.090%	1.686%	2007 Total VMT Traveled (o&osystem)	20%	21.90%
Harlingen-San Benito	5.718%	7.044%	1.326%	23.196%	2007 Lane Miles (on system)	0%	11.10%
Killeen-Temple	7.668%	10.833%	3.165%	41.272%	2007 Truck VMT	22%	14.70%
Laredo	4.897%	5.794%	0.897%	18.305%	2007 Centerline Miles	0%	6.60%
Longview	6.274%	5.902%	<b>-0.372%</b>	<b>-5.922%</b>	2006 Congestion	15%	
Midland-Odessa	7.174%	6.494%	<b>-0.680%</b>	<b>-9.478%</b>	Total -	100.00%	100.00%
San Angelo	2.338%	2.027%	<b>-0.312%</b>	<b>-13.323%</b>			
Sherman-Denison	4.077%	4.031%	<b>-0.045%</b>	<b>-1.110%</b>			
Texarkana	2.700%	3.164%	0.464%	17.172%			
Tyler	5.065%	6.225%	1.160%	22.911%			
Victoria	3.874%	2.494%	<b>-1.379%</b>	<b>-35.605%</b>			
Waco	9.503%	6.842%	<b>-2.661%</b>	<b>-28.003%</b>			
Wichita Falls	3.424%	2.813%	<b>-0.610%</b>	<b>-17.824%</b>			

	CURRENT 2003 Calculated Percentage	NEW 2008 Calculated Percentage	difference	% change	Not Selected		
					TEST Formula		Current (2003) Formul a
					Factor	%	%
Abilene	4.112%	4.536%	0.424%	10.313%			
Amarillo	6.706%	5.752%	<b>-0.954%</b>	<b>-14.225%</b>	2000 Census Population of MAB	0%	26.40%
Beaumont (JOHRTS)	15.627%	12.866%	<b>-2.761%</b>	<b>-17.669%</b>	2007 Population Below Poverty Level	0%	8.60%
Brownsville	5.497%	7.794%	2.297%	41.780%	2007 Crashes	0%	10.70%
Bryan-College Station	5.347%	5.446%	0.099%	1.856%	2007 Total VMT Traveled (o&osystem)	0%	21.90%
Harlingen-San Benito	5.718%	7.073%	1.355%	23.698%	2007 Lane Miles (on system)	0%	11.10%
Killeen-Temple	7.668%	10.718%	3.050%	39.778%	2007 Truck VMT	0%	14.70%
Laredo	4.897%	5.716%	0.819%	16.730%	2007 Centerline Miles	0%	6.60%
Longview	6.274%	6.235%	<b>-0.038%</b>	<b>-0.610%</b>	2006 Congestion	0%	
Midland-Odessa	7.174%	6.503%	<b>-0.671%</b>	<b>-9.353%</b>	Total -	0.00%	100.00%
San Angelo	2.338%	2.183%	<b>-0.155%</b>	<b>-6.622%</b>			
Sherman-Denison	4.077%	4.080%	0.004%	0.094%			
Texarkana	2.700%	3.032%	0.332%	12.279%			
Tyler	5.065%	6.127%	1.063%	20.981%			
Victoria	3.874%	2.500%	<b>-1.373%</b>	<b>-35.448%</b>			
Waco	9.503%	6.560%	<b>-2.943%</b>	<b>-30.967%</b>			
Wichita Falls	3.424%	2.876%	<b>-0.547%</b>	<b>-15.987%</b>			
Total -	100.000%	100.000%	0.000%				

	CURRENT 2003 Calculated Percentage	NEW 2008 Calculated Percentage	difference	% change	Not Selected		
					TEST Formula		Current (2003) Formul a
					Factor	%	%
Abilene	4.112%	0.000%	<b>-4.112%</b>	<b>-100.000%</b>			
Amarillo	6.706%	0.000%	<b>-6.706%</b>	<b>-100.000%</b>	2000 Census Population of MAB	0%	26.40%
Beaumont (JOHRTS)	15.627%	0.000%	<b>-15.627%</b>	<b>-100.000%</b>	2007 Population Below Poverty Level	0%	8.60%
Brownsville	5.497%	0.000%	<b>-5.497%</b>	<b>-100.000%</b>	2007 Crashes	0%	10.70%
Bryan-College Station	5.347%	0.000%	<b>-5.347%</b>	<b>-100.000%</b>	2007 Total VMT Traveled (o&osystem)	0%	21.90%
Harlingen-San Benito	5.718%	0.000%	<b>-5.718%</b>	<b>-100.000%</b>	2007 Lane Miles (on system)	0%	11.10%
Killeen-Temple	7.668%	2.670%	<b>-4.998%</b>	<b>-65.178%</b>	2007 Truck VMT	0%	14.70%
Laredo	4.897%	4.282%	<b>-0.616%</b>	<b>-12.571%</b>	2007 Centerline Miles	0%	6.60%
Longview	6.274%	0.000%	<b>-6.274%</b>	<b>-100.000%</b>	2006 Congestion	0%	
Midland-Odessa	7.174%	3.125%	<b>-4.049%</b>	<b>-56.444%</b>	Total -	0.00%	100.00%
San Angelo	2.338%	8.160%	5.821%	248.956%			
Sherman-Denison	4.077%	3.293%	<b>-0.784%</b>	<b>-19.226%</b>			
Texarkana	2.700%	100.000%	97.300%	3603.595%			
Tyler	5.065%	0.000%	<b>-5.065%</b>	<b>-100.000%</b>			
Victoria	3.874%	0.000%	<b>-3.874%</b>	<b>-100.000%</b>			
Waco	9.503%	0.000%	<b>-9.503%</b>	<b>-100.000%</b>			
Wichita Falls	3.424%	0.000%	<b>-3.424%</b>	<b>-100.000%</b>			
Total -	100.000%	100.000%	0.000%				

Not Selected							
	CURRENT 2003 Calculated Percentage	NEW 2008 Calculated Percentage	difference	% change	TEST Formula		Current (2003) Formul a
					Factor	%	%
Abilene	4.112%	0.000%	-4.112%	-100.000%			
Amarillo	6.706%	0.000%	-6.706%	-100.000%	2000 Census Population of County	25%	26.40%
Beaumont (JOHRTS)	15.627%	0.000%	-15.627%	-100.000%	2007 Population Below Poverty Level	8%	8.60%
Brownsville	5.497%	0.000%	-5.497%	-100.000%	2007 Crashes	10%	10.70%
Bryan-College Station	5.347%	0.000%	-5.347%	-100.000%	2007 Total VMT Traveled (on & off system)	20%	21.90%
Harlingen-San Benito	5.718%	0.000%	-5.718%	-100.000%	2007 Lane Miles (on system)	8%	11.10%
Killeen-Temple	7.668%	2.670%	-4.998%	-65.178%	2007 Truck VMT	14%	14.70%
Laredo	4.897%	4.282%	-0.616%	-12.571%	2007 Centerline Miles	6%	6.60%
Longview	6.274%	0.000%	-6.274%	-100.000%	2006 Congestion	9%	
Midland-Odessa	7.174%	3.125%	-4.049%	-56.444%	Total -	#####	100.00%
San Angelo	2.338%	8.160%	5.821%	248.956%			
Sherman-Denison	4.077%	3.293%	-0.784%	-19.226%			
Texarkana	2.700%	100.000%	97.300%	3603.595%			
Tyler	5.065%	0.000%	-5.065%	-100.000%			
Victoria	3.874%	0.000%	-3.874%	-100.000%			
Waco	9.503%	0.000%	-9.503%	-100.000%			
Wichita Falls	3.424%	0.000%	-3.424%	-100.000%			
Total -	100.000%	121.529%	21.529%				

Not Selected							
	CURRENT 2003 Calculated Percentage	NEW 2008 Calculated Percentage	difference	% change	TEST Formula		
					Factor	%	%
Abilene	4.112%	5.102%	0.990%	24.073%			
Amarillo	6.706%	6.262%	-0.445%	-6.629%	2000 Census Population of County	26.40%	26.40%
Beaumont (JOHRTS)	15.627%	11.644%	-3.983%	-25.488%	2007 Population Below Poverty Level	8.60%	8.60%
Brownsville	5.497%	7.454%	1.957%	35.594%	2007 Crashes	10.70%	10.70%
Bryan-College Station	5.347%	4.314%	-1.033%	-19.328%	2007 Total VMT Traveled (on & off system)	21.90%	21.90%
Harlingen-San Benito	5.718%	7.053%	1.336%	23.357%	2007 Lane Miles (on system)	11.10%	11.10%
Killeen-Temple	7.668%	9.589%	1.921%	25.054%	2007 Truck VMT	14.70%	14.70%
Laredo	4.897%	5.275%	0.377%	7.705%	2007 Centerline Miles	6.60%	6.60%
Longview	6.274%	7.118%	0.844%	13.453%	2006 Congestion		
Midland-Odessa	7.174%	7.238%	0.064%	0.895%	Total -	#####	100.00%
San Angelo	2.338%	2.644%	0.305%	13.061%			
Sherman-Denison	4.077%	3.609%	-0.467%	-11.461%			
Texarkana	2.700%	3.551%	0.851%	31.525%			
Tyler	5.065%	5.994%	0.929%	18.340%			
Victoria	3.874%	2.680%	-1.193%	-30.807%			
Waco	9.503%	7.103%	-2.400%	-25.255%			
Wichita Falls	3.424%	3.371%	-0.053%	-1.536%			
Total -	100.000%	100.000%	0.000%				