Congestion continues to grow in America’s urban areas. Despite a slow growth in jobs and travel in 2003, congestion caused 3.7 billion hours of travel delay and 2.3 billion gallons of wasted fuel, an increase of 79 million hours and 69 million gallons from 2002 to a total cost of more than $63 billion. The solutions to this problem will require commitment by the public and by national, state and local officials to increase investment levels and identify projects, programs and policies that can achieve mobility goals. The 2005 Report shows that the current pace of transportation improvement, however, is not sufficient to keep pace with even a slow growth in travel demands in most major urban areas. The complete report, methodology, data, charts and tables can be found at: http://mobility.tamu.edu/ums

Major Findings for 2005 – The Big Numbers
The problem can be stated simply – urban areas are not adding enough capacity, improving operations or managing demand well enough to keep congestion from growing larger. Over the most recent 3 years, the contribution of operations improvements has grown from 260 to 340 million hours of congestion relief, but delay has increased by 300 million hours over the same period. Congestion occurs during longer portions of the day and delays more travelers and goods than ever before. And if the current fuel prices are used, the congestion “invoice” climbs another $1.7 billion which would bring the total cost to about $65 billion.

To highlight the need for a broad solution set, the 2003 Urban Mobility Report presented an estimate of the effect of operational treatments on urban congestion. Those benefits have expanded in subsequent years, but the increase has not been significant enough to stop the growth in congestion. In fact, if the five operating improvements studied in this report were deployed on all major streets and freeways in the 85 urban areas the total delay would decline by an important 300 million hours per year. Delay per traveler would decline to 44 hours per year.

The next question is obvious: Is that good enough? If not, the future will require more roadway and public transportation capacity, and that capacity will have to be operated as efficiently as possible. The travel patterns of commuters and businesses, and the design of developments must also be examined if the current congestion levels are to be reduced and the estimated 65 million new urban residents accommodated over the next 20 years.

The Problem
Mobility problems have increased at a relatively consistent rate during the two decades studied. Congestion is present on more of the transportation systems, affecting more of the trips and a greater portion of the average week in urban areas of all sizes.

Congestion affects more of the roads, trips and time of day. The worst congestion levels increased from 12% to 40% of peak period travel. And free-flowing travel is less than half of the amount in 1982 (Exhibit 1).

Congestion has grown in areas of every size. Measures in all of the population size categories show more severe congestion that lasts a longer period of time and affects more of the transportation network in 2003 than in 1982. The average annual delay for every person using motorized travel in the peak periods in the 85 urban areas studied climbed from 16 hours in 1982 to 47 hours in 2003.
Congestion costs are increasing. The total congestion “invoice” for the 85 areas in 2003 was approximately $63 billion, an increase from about $62 billion in 2002. The 3.7 billion hours of delay and 2.3 billion gallons of fuel consumed due to congestion are only the elements that are easiest to estimate. The effect of uncertain or longer delivery times, missed meetings, business relocations and other congestion results are not included.

The Solutions
The problem has grown too rapidly and is too complex for only one technology or service to be “the solution.” The increasing trends also indicate the urgency of the improvement need. Major improvements can take 10 to 15 years and smaller efforts may not satisfy all the needs. So we recommend a balanced approach—begin to plan and design major capacity increasing projects, plans or policy changes while immediately relieving critical bottlenecks or chokepoints, and aggressively pursuing operations improvements and demand management options that are available.

More capacity— More road and public transportation improvement projects are part of the equation. New streets and urban freeways will be needed to serve new developments; public transportation improvements are particularly important in congested corridors and to serve major activity centers; and, toll highways and toll lanes are being used more frequently in urban corridors. Capacity expansions are also important additions for freeway-to-freeway interchanges and connections to ports, rail yards, intermodal terminals and other major activity centers for people and freight transportation.

Greater efficiency— More efficient operation of roads and public transportation can provide more productivity from the existing system at relatively low cost. Some of these can be accelerated by information technology, some are the result of educating travelers about their options, and some are the result of providing a more diverse set of travel and development options than are currently available. This report presents information on the effect of five prominent operational treatments.

Manage the demand— The way that travelers use the transportation network can be modified to accommodate more demand. Using the telephone or internet for certain trips, traveling in off-peak hours and using public transportation and carpools are examples. Projects that use tolls or pricing incentives can be tailored to meet both transportation needs and economic equity concerns. The key will be to provide better conditions and more travel options for shopping, school, health care and a variety of other activities.

Development patterns— There are a variety of techniques that are being tested in urban areas to change the way that commercial, office and residential developments occur. These also appear to be part, but not all, of the solution. Sustaining the urban “quality of life” and gaining an increment of economic development without the typical increment of mobility decline is one way to state this goal.

Realistic expectations are also part of the solution. Large urban areas will be congested. Some locations near key activity centers in smaller urban areas will also be congested. But congestion does not have to be an all-day event. Identifying solutions and funding sources that meet a variety of community goals is challenging enough without attempting to eliminate congestion in all locations.

CONCLUSIONS
Careful examination of the data in the 2005 Urban Mobility Report will leave the reader with no doubt as to the growing urban congestion problem. The broad set of solutions recommended in the Report, is a diverse reaction to the problem. The future is not about a choice between or among these solutions, the choice is about how to use each project, program or strategy and how much transportation improvement will be pursued. In 2004, over three-quarters of the initiatives dealing with transportation at the state and local levels were approved by voters, indicating that travelers, shippers, businesses and elected leaders do support improvements.