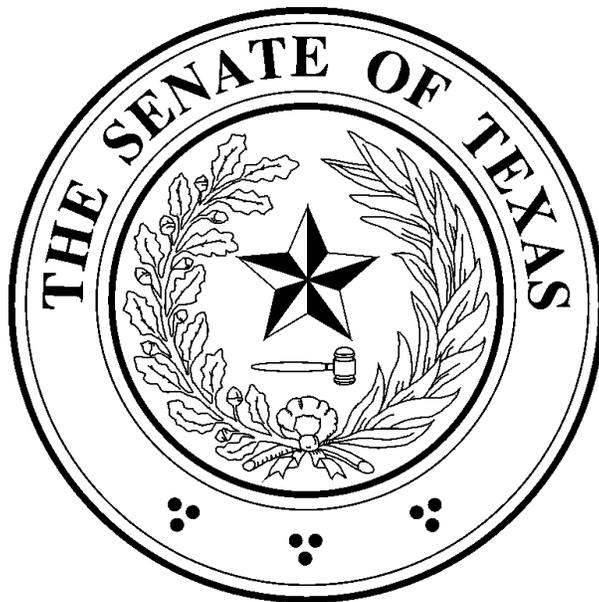


Texas Borderlands 2009

The State of Border Transportation and Security



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District 29
El Paso, Texas
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THE STATE OF BORDER TRANSPORTATION AND SECURITY

The United States is now approaching the end of 21st century's first decade with a clearer and more sober understanding of the challenges we face. High energy costs, an uncertain security environment and intense competition for the jobs and industries of the future are the new permanent reality. America can thrive in the new economy if we recognize our weaknesses and fully embrace our strategic advantages. For the state of Texas, our proximity to and economic coordination with Mexico is likely to be our principal strategic asset. With North America now the world's largest free trade economic area, Texas has a unique opportunity to place itself firmly at the center of the continent's principal commerce corridor.¹ This unique level of access to the Mexican economy gives Texas a strategic advantage over other states in attracting new types of businesses and jobs and it is a resource that the state of Texas has only begun to tap.

Without efficient and reliable transportation linkages, the advantages of this asset will whither while the negative attributes such as congestion and air pollution will increase. Creating a reliable and productive transportation network along the border presents a host of challenges that are not encountered in other locations. The infrastructure component, the policy component and the public information component all must work in tandem with each other. This chapter presents an update on the current state of border transportation for both freight and passenger movements and describes how Texas is striving to balance transportation fluidity with border security.

The United States shares 2,000 miles of Border with Mexico, of which 1,254 miles are along the Texas Border. Of the 309 official ports of entry (POE) in the United States, 166 of these are land POE's. The southern border's 43 POE's contain 86 pedestrian lanes, 216 lanes for personally owned vehicles (POVs) and 70 lanes for cargo carrying vehicles.² In Texas, 23 international crossings serve as overland ports-of-entry for trade with Mexico. Border transportation activity is commonly divided into Commercial Truck, Personally Owned Vehicle (POV) and Pedestrian Crossings. While it is commonly assumed that commercial truck crossings alone constitute international trade, personal vehicle and pedestrian crossings also have a critical impact on international trade, in border cities and beyond. For example it is estimated that almost 10% of shoppers at Rivercenter Mall in San Antonio made the trip directly from Mexico.³ In a recent Inland Ports across America Conference in Laredo, Texas David Marquez, of Bexar County's Economic Development Group highlighted how important the efficient border was to their Texas-Mexico Automotive Super Cluster components.⁴ Figure 1 shows the area that this cluster covers from Monterrey all the way to Fort Worth as well as the manufacturers and suppliers involved within this automotive super cluster.



Figure 1: Texas Mexico Automotive Cluster
 Source: Bexar County Economic Development

For reasons such as these, congestion and delays at the border for commercial or personal vehicles can severely hurt the Texas economy. Delays also hurt those seeking to visit friends and family and the thousands of children who cross the border to attend school everyday in the United States.

Texas Coordination with Mexico

The Texas Mexico border region is increasingly an economic and cultural continuum. At the same time that the national political discussion on border issues has become bogged down in divisive rhetoric, the economic integration of Texas and Mexico, in particular the states of Northern Mexico, has continued unabated.

With the election of Felipe Calderon in 2006, Mexico engaged in an aggressive effort to improve its transportation infrastructure and better link its transportation connections with the United States. It is predicted that these investments, funded in large part through PPP's, will greatly enhance Mexico's economic competitiveness in trade dependent industries leading to

continued growth in Texas Mexico traffic. As can be seen in Figure 2 Mexico's Pacific Port's container volume trend has grown dramatically since 2001.⁵

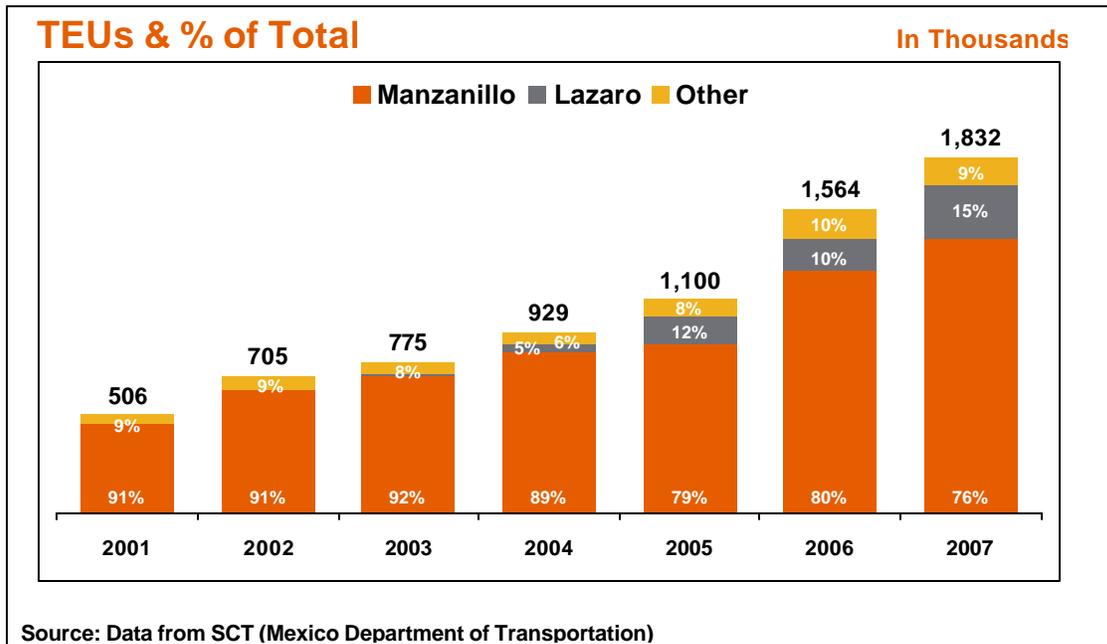


Figure 2: México Pacific TEU Volume Trend

Source: Joel Rodriguez, BNSF Railway

It is critical that transportation investments made on the Mexican side of the border are systematically coordinated with those made in Texas. For this reason, the Texas Department of Transportation has regular meetings with counterparts in the bordering Mexican states and has also sponsored research to better understand the Mexican infrastructure planning system.

In examining the economic development of Mexico and coordination with the United States, it is instructive to pay particular attention to the developments underway in the bordering states of Coahuila, Chihuahua, Nuevo Leon and Tamaulipas. In 2004, these four states entered into an “Agreement for Regional Development Partnership” along with the Governor of Texas, Rick Perry.⁶ The states have also sought specifically to coordinate transportation and environmental issues that do not stop at the border. The strategic environmental plan for the states of Nuevo Leon and Texas, for example, seeks to “work with institutions on water and wastewater treatment and groundwater protection related to the Colombia community in Nuevo León” given the anticipated growth in trade.⁷

Coordination with Mexican counterparts is also underway between El Paso and Ciudad Juarez. As detailed by the El Paso MPO, one of the broadest initiatives is the Multi-Regional transit and commuter committee which seeks to:

- Meet multi-mobility needs in the El Paso-Juarez region
- Develop an integrated multi-modal transportation network
- Improve connectivity between international ports and the region's transportation system

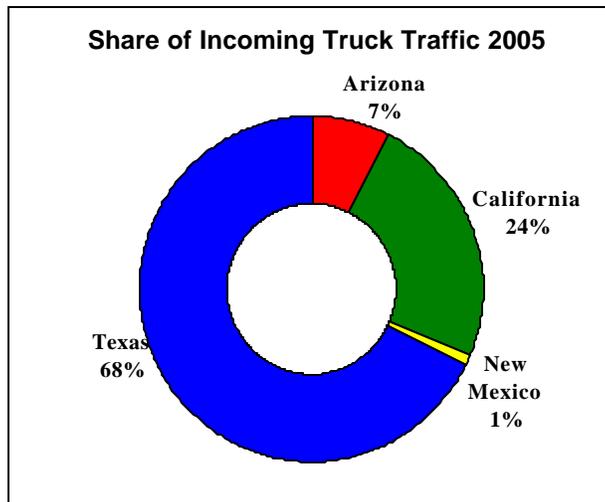
- Encourage transit oriented development

The organization includes representatives from New Mexico, the US EPA, NMDOT, TxDOT, Cd. Juarez, the State of Chihuahua , three transit agencies, four municipalities, two council of governments, one New Mexico Regional Planning Agency and two MPO's.⁸ In addition, the Camino Real Border Improvement Plan which analyzed current and future needs for the six ports of entry in the El Paso region, was coordinated with the Ciudad Juarez *Instituto Municipal de Investigación y Planeación* (IMIP).⁹

At the Americas 2020 summit held in Austin in May 2008, a key recommendation that emerged from a breakout session on North America Infrastructure Competitiveness was the formation of a bi-national strategic plan for each region within the U.S. – Mexico border region.¹⁰

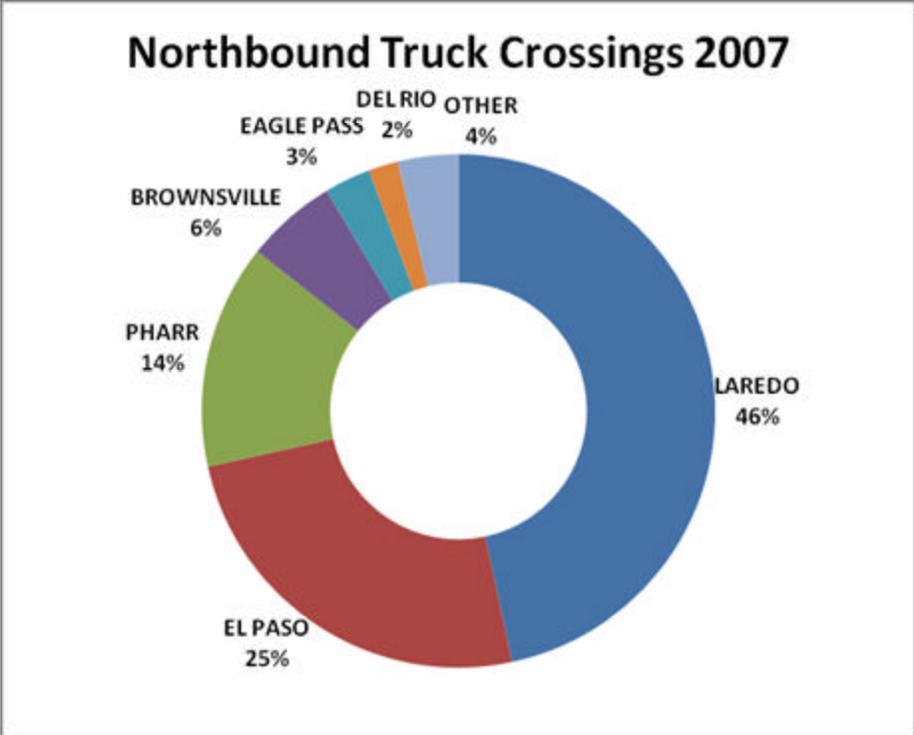
U.S.-Mexico Commercial Crossings

Texas currently holds a dominant share of cross border truck movements. In 2006 68% of the trucks that entered the United States from Mexico came through Texas (Graph 1). Between 2003 and 2006, the annual value of cargo transported by truck at Laredo increased from \$55 to \$79 billion. In 2007, growth in truck and rail traffic between Texas and Mexico was negative for the first time in several years. Total northbound truck crossings totaled 3,146,878, down from 3,246,974 the previous year. Southbound crossings decreased from 2,938,258 to 2,858,894 between 2006 and 2007

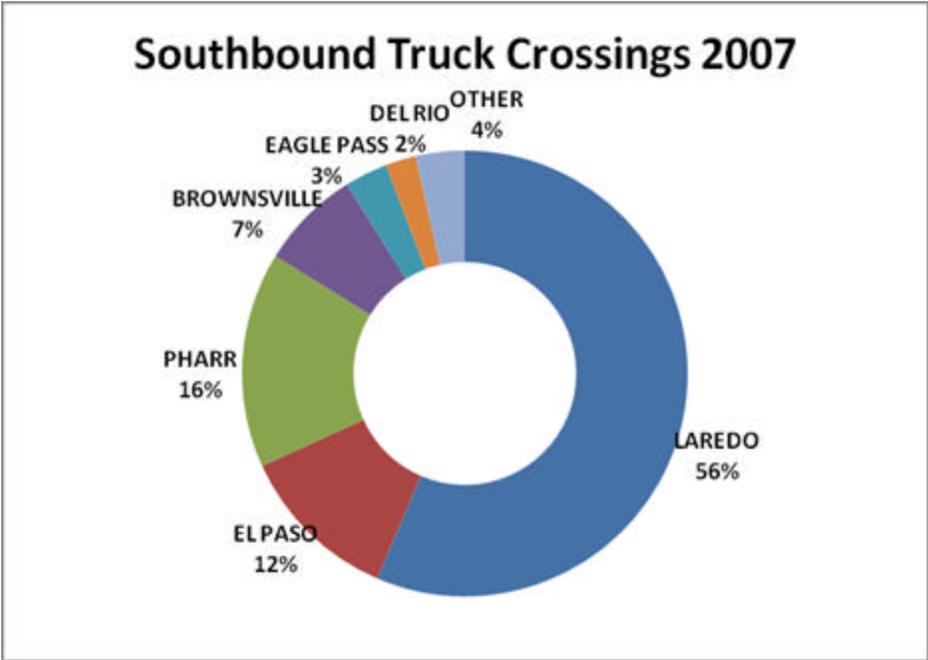


Graph 1: Incoming trucks from Mexico 2006
Data Source: BTS Transborder Database

As can be seen from Graphs 2 and 3, the Laredo, El Paso and Pharr crossing are responsible for the majority of truck traffic crossing the Texas Mexico border. The border port of Laredo is particularly dominant for southbound truck movements while the border port of El Paso hosts a comparatively larger share of northbound trucks.



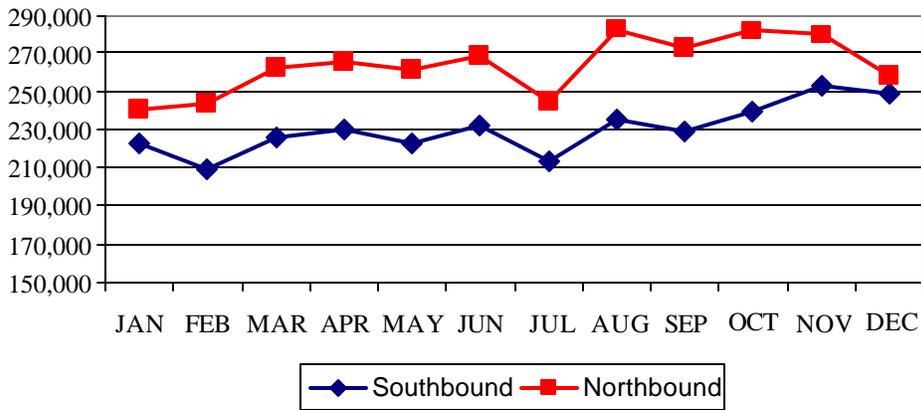
Graph 2 Northbound Truck Crossings in 2007



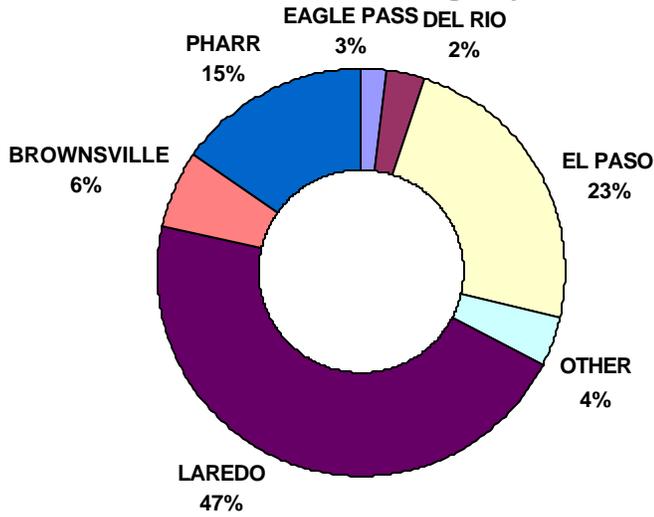
Graph 3 Southbound Truck Crossings in 2007

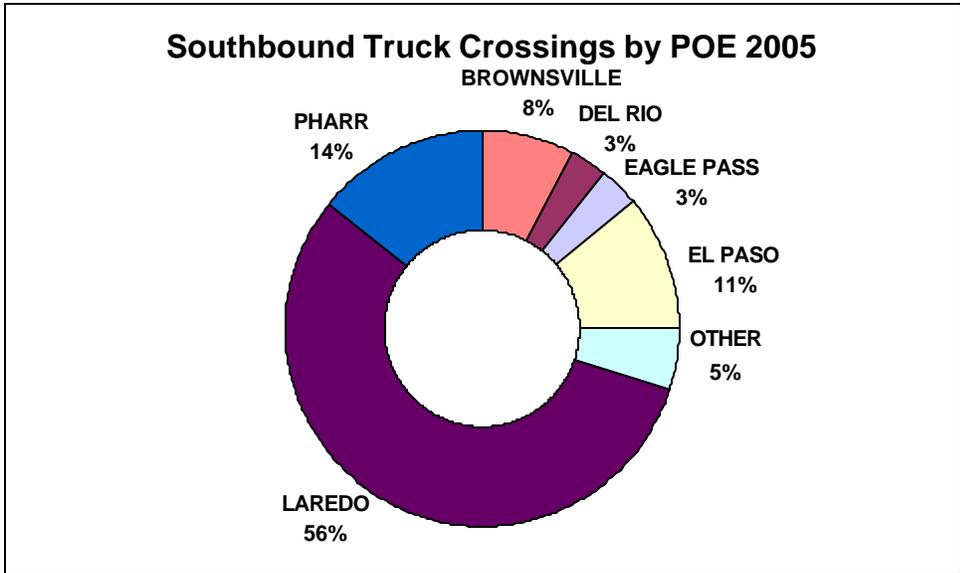
Source: BTS Transtats

2005 Texas-Mexico Truck Crossings



Northbound Truck Crossings by POE 2005





Personally Owned Vehicles (POVs)

Approximately seventy million vehicles legally cross the Texas border each year. Many of the crossers use border crossing cards which do not allow them to travel beyond a 25 mile border zone. The increased congestion has imposed an enormous strain on an already overburdened border infrastructure. The sheer volume of traffic means that any decrease in processing speed can lead to cascading delays that can occur without warning. On average, POV wait times are twice as long on the US-Mexico border as the US-Canada Border.¹¹ Although understanding wait times is critical for expediting commerce and lowering the burden on travelers there is still a lack of up to date data on border crossing times that is consistent across all ports of entry. The ‘Border Wait Times Study Act’, (H.R. 4309, S.B. 2425) introduced in December 2007 by Senator Kay Bailey Hutchinson along with Representatives Ciro Rodriguez and Silvestre Reyes, will direct the Secretary of Transportation to complete a comprehensive analysis of border wait times and assess the negative economic impacts of these wait times on the United States.¹² The bill will also assess the potential impact of boosting staffing levels at the border. As can be seen from the Figure 3, flows of traffic entering the U.S. follow a predictable seasonal pattern that should make it possible for the government in match the proper staffing level to the demand.

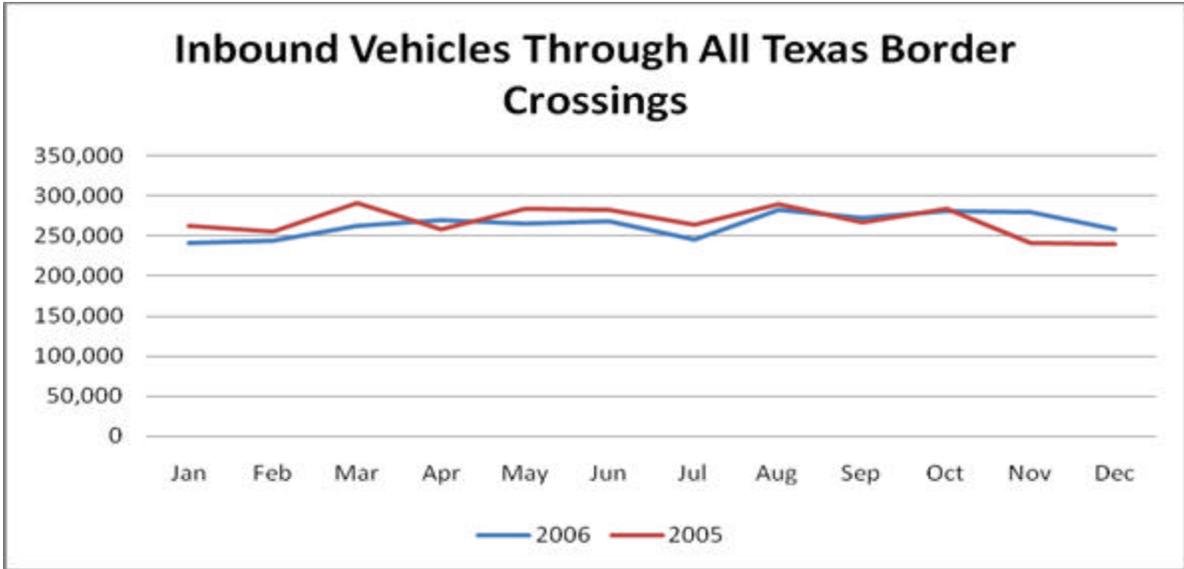


Figure 3: 2005 and 2006 Inbound Vehicles through Texas Border Crossings
 Source: BTS Transborder Database

Commercial Trucking

Delays experienced by trucks at commercial crossings are another area of concern. Again, there is a wide disparity in processing times when comparing the southern border and the northern border. These delays have the effect of increasing transportation cost for goods traded between the United States and Mexico. A recent study by the America Transportation Research Institute (ATRI) used trucker surveys to take an average of border wait times at commercial crossings, as can be seen Figure 4, delay accrues at each stage of the border crossing process making the total time required for a truck to cross the Southern border 138 minutes versus 73 minutes at the Northern border.¹³

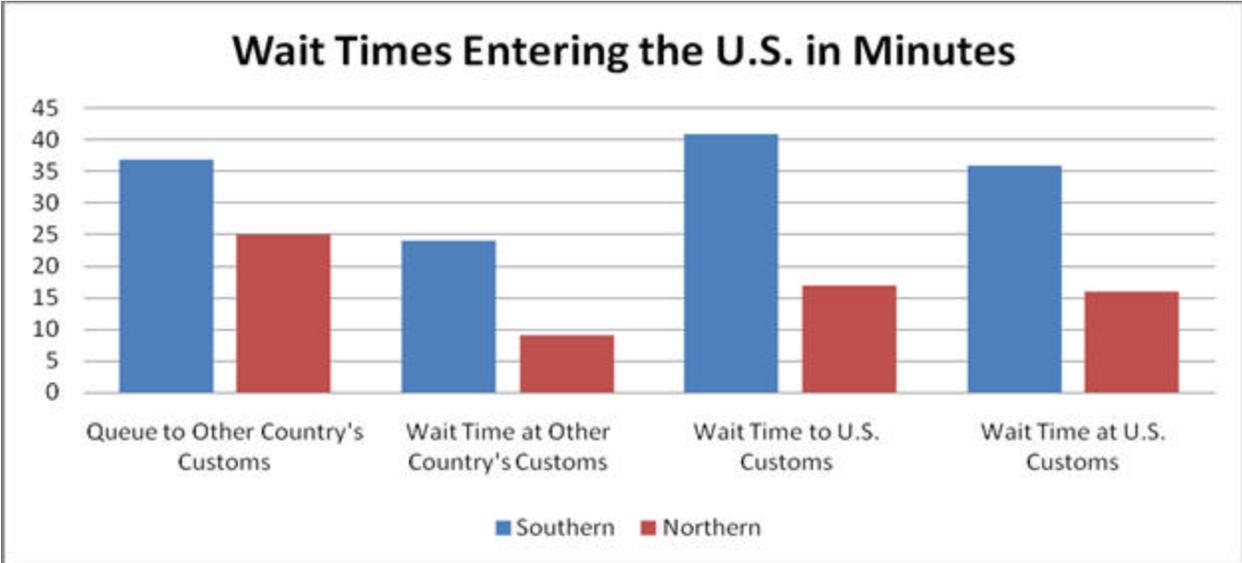


Figure 4: Wait Times Entering the US for Commercial Trucks

Source: American Transportation Research Institute

A study that is being funded by the FHWA and TxDOT to measure wait times for commercial crossings at the Pharr port of entry is expected to begin in the summer of 2008. If successful, this study may be a guide for future wait time studies at other border crossings. In addition, an assessment of travel patterns near Texas ports of entry on the northern side and the needed infrastructure to better serve this traffic, funded by TxDOT, is expected to be completed the summer of 2008.

Security is a laudable and necessary goal. However, it is a goal that can be achieved without transforming the U.S.-Mexico Border into a fortified barrier that impedes the legitimate flow of commerce and people. Effective regulation at our borders will require the coordination of state and federal actors, as well as closer coordination with the Federal and State governments of Mexico. The overwhelming majority of people and goods cross the Border for legitimate purposes. U.S. efforts to increase homeland security must be made alongside equal efforts to facilitate trade.

Emerging Trade Patterns to and through Texas

Trading patterns in the last two years have been significantly impacted by the decline in the purchasing power of the dollar as well as the housing crisis and the increase in manufacturing input costs including not only oil but also commodities such as steel and cement. One impact of these trends has been a surge in US exports as US produced products become comparatively cheaper on the world market. The other trend that is quickly becoming a reality is “near sourcing” which refers to the effort by manufactures to shorten the distance of their supply chains in order to improve turnaround time and lower energy costs.

In the 1990s, when energy was cheap, many industries moved their business to East Asia to take advantage of cheaper labor with low transportation costs. Yet this trend appears to be changing. According to Drewry Supply Chain Advisors’ recent analysis of the apparel market, “proximity to the US market, the associated responsiveness of supply chains, and the absence of import duties from Mexico, together with factors such as quality control are playing a part in recent decisions to source from nearer locations.”¹⁴ When \$100 barrel oil is added to the equation, it becomes even more likely that the pendulum for trade growth will be shifting back to North America. According to a recent study, the increases in transport costs tied to energy in the few years have meant that the average cost to transport a 40 foot container from China to the Eastern United States has increased from \$3000 in 2000 to \$8000 in 2008.¹⁵ This cost increase largely negates the advantage gained from lower labor costs in Asia for many commodity types. The implications for Mexico and the maquiladora economy, as stated in the report: “Instead of finding cheap labor half-way around the world, the key will be to find the cheapest labor force within reasonable shipping distance to your market. In that type of world, look for Mexico’s maquiladora plants to get another chance at bat when it comes to supplying the North American market”.

Table 1: Total Imports and Exports with Mexico through El Paso Ports of Entry

	2007	2006	2005	2004
Total Value of Imports from Mexico through El Paso	\$29,120,556,718	\$25,784,214,734	\$24,244,241,845	\$24,521,573,092
Total Value of Exports to Mexico through El Paso	\$20,039,649,546	\$20,977,711,614	\$18,931,106,687	\$18,366,232,809

Source: US Census

Table 1 shows total imports and exports with Mexico through El Paso's ports of entry from 2004 through 2007. As can be seen in Table 2 in 2007, electrical machinery was by far the most valuable single commodity type imported from Mexico through El Paso ports of entry. Within the commodity class (85), TV receivers and monitors have become the single largest commodity.

Table 2: Imports of Electrical Machinery & Equipment from Mexico through El Paso, 2004-07

	2007	2006	2005	2004
8544 Insulated Wires and Cables	\$2,917,067,420	\$2,768,494,080	\$2,846,753,074	\$2,684,614,277
8528 TV Receivers, Video Monitors & Projectors	\$4,186,013,224	\$2,955,408,448	\$2,651,128,727	\$2,402,996,330
8501 Electric Motors And Generators	\$566,969,394	\$532,640,230	\$496,549,856	\$428,037,789
8536 Electrical Apparatus For Switching	\$577,308,159	\$544,007,429	\$489,598,145	\$463,408,231
8537 Boards and Panels	\$564,407,894	\$506,477,041	\$361,892,823	\$391,838,857
8504 Electrical transformers, static converters	\$294,639,787	\$264,275,023	\$259,251,840	\$240,521,196
8512 Electric Light Equipment; Windshield Wipers Etc, Parts	\$390,658,417	\$283,452,192	\$228,998,589	\$187,926,969
8517 Electric Apparatus For Line Telephony Etc, Parts	\$418,354,529	\$272,697,023	\$135,621,629	\$120,771,464

Data Source: US Census Trade database, www.usatradeonline.gov

Table 3: El Paso Truck Volume vs Total Trade Value (1999-2006)

Year	Truck Volume	% Change	Trade Value	% Change
1999	673,003		29,295,507,657	
2000	720,406	7.04	36,007,672,923	22.91
2001	660,583	-8.30	34,697,347,987	-3.64
2002	705,199	6.75	33,093,583,193	1.14
2003	659,614	-6.46	35,395,405,055	2.40
2004	719,545	9.09	39,531,128,833	10.01
2005	740,654	2.93	39,523,577,739	-0.02
2006	744,951	0.58	42,237,452,507	6.87

Source: BTS Transborder Database

Exports

In 2000 nearly one-half, or 47 percent, of all Texas exports went to Mexico. In 2007, Texas exported \$56 billion dollars to Mexico, or 33% of the state's total exports. For the first decade after the passage of NAFTA, neither Mexico nor the United States made the

infrastructural or institutional adjustments necessary to handle the surge of international traffic that this agreement produced.¹⁶

Research by the Federal Reserve Bank of Dallas has shown that exports to Asia, and in particular China, now account for a much more significant percentage of total Texas exports than was the case in the year 2000. Exports to China from the El Paso region increased from \$98 million to \$120 million between 2005 and 2006. Exports to Mexico in 2006, by comparison, were \$7.8 billion.¹⁷

The growth of China on the world trading market has also dramatically impacted the maquiladora industry in recent years. In the traditional maquiladora model, manufactured inputs would be produced in the United States and exported to Mexico where they would be assembled into finished or semi-finished products and re-exported back to the United States. This system meant that the growth of the maquiladora industry was limited to a large extent by the growth of US suppliers. Mexico's international trade used to depend almost exclusively on the United States, however this is no longer the case. Between 2000 and 2004, Mexico's trade with the US fell from 81% to 72% of its total trade with the world. Most of this loss has occurred on the import side. The US is still the destination of 90 percent of Mexican exports, however Mexican imports from the US have dropped from 73% in 2000 to 56% in 2004.¹⁸ Alternatively, Mexico's imports from China have grown from \$1.3 Billion in 1997 to over \$17 Billion in 2005.¹⁹ Research by Jesus Canas and Roberto Coronado at the Federal Reserve Bank of Dallas, El Paso Branch has shown that maquiladora inputs are a significant reason for this increase in Asian trade. In 2001 90 percent of maquiladora inputs were from the United States and 9 percent were from Asia. By 2004, the US share of maquiladora inputs had fallen to 59 percent while the Asian share had grown to 36%.²⁰

In all Border States crossers face congestion and long waiting times usually associated with government inspections and customs processing. These factors contribute to increased traffic congestion, which impedes commercial and non-commercial traffic in Border communities and at Border ports-of-entry. Given the significance of this trade to the nation and our state, federal and state regulators must determine how commerce and law enforcement should interact at the Border, and what policies should be adopted to facilitate the movement of people and goods in order to maintain productive trade patterns.

Some economists assert that failure to invest in public works amounts to a "third deficit," after budget and trade imbalances. Delaying investment in infrastructure hinders production and shipping and hampers economic growth. For the El Paso/Ciudad Juarez metroplex, the cost of vehicle maintenance and delays for the 15 million vehicles stalled at the international bridges in 2000 exceeded \$100 million every year.²¹

On both sides of the U.S.-Mexico Border, the sheer volume of commercial vehicles has overwhelmed government agencies charged with inspections and exacerbated inefficiencies in outdated inspection processes. In its December 2001 Border Transportation Report, the General Accounting Office (GAO) found that five primary factors contribute to northbound congestion at the Border:

1. Multiple inspection requirements;
2. Staffing and human resources problems;
3. Limited use of automated management information systems for processing commercial traffic;
4. Insufficient roads connecting ports-of-entry; and,
5. Limited coordination and planning among U.S. inspection agencies and between the U.S. and Mexico.²²

The GAO report noted that the lack of coordination among agencies within countries, as well as between countries, stands in the way of reducing shippers' transaction costs. Depending on the type of load, commercial vehicles have to pass through customs, agriculture, drug, immigration and safety inspections.

The growth of RFID use in the border inspection process has the potential to reduce paperwork and eventually improve border crossing times, however it also puts an even higher premium on ensuring that the border is staffed with officers well trained in the proper uses of these new technologies. Furthermore, some policymakers may believe that the addition of new technologies can substitute for investments in traditional infrastructure. However, this is clearly not the case. In 2003 the Data Management Improvement Act Task Force concluded that 70% of the 166 land ports of entry had inadequate infrastructure. Of these:

- 64 ports have less than 25% of required space
- 40 ports have between 25 and 50% of required space and
- 13 ports have between 50 and 75% of required space.²³

These alarming statistics show that the problems at the border are not something that can be tweaked or easily corrected. Rather, they require a long-term program of sustained and strategic investments.

One-Stop” Border Inspection Facilities

A "Smart Border" bi-national trade system uses technology to help streamline the passage of low-risk goods and people into the United States. At the same time, the system seeks to prevent dangerous or illicit goods from entering the country. To that extent, smart border innovations have been in progress for some time.

To cope with NAFTA's strain on Border infrastructure and to expedite the flow of commerce at our ports of entry, Senator Shapleigh authored S.B. 913 in the 76th Legislative Session to require the Texas Department of Transportation (TxDOT) to build one-stop Border inspection stations in the cities that have experienced the greatest increase in commercial traffic, Laredo, El Paso, and Brownsville.

The 76th Legislature passed S.B. 913, which has five goals: (1) to facilitate the flow of commerce, (2) improve federal efforts aimed at interdiction, (3) protect our public health, (4) conserve our environment by decreasing the idling time of commercial vehicles, and (5) protect our already severely overburdened highways along the Border by preventing overweight trucks from traveling on Texas' roads.

In response to the passage of S.B. 913, former Texas Secretary of State Elton Bomer, working in conjunction with TxDOT, directed the Center for Transportation Research (CTR) of the University of Texas at Austin and the Texas Transportation Institute (TTI) of the Texas A&M University System to examine the feasibility of an expedited Border process that would facilitate trade while permitting federal and state agencies to maintain their inspection responsibilities. In addition, CTR and TTI were directed to determine the potential to enhance security through improved automation and screening. The final product envisioned was the "one-stop" Border inspection facility prototype. The one-stop model can be viewed at: www.bordercross.tamu.edu.

Other Barriers to Facilitating Commerce

Although emerging technologies exist to address trade and safety, barriers to trade persist and even increase as new obstacles are erected. The restricted movement of commercial vehicles across the Border, Mexican customs broker practices, inadequate staffing and inspection facilities, and outdated U.S. customs processing and inspections all cost shippers time and money. These transactions costs reduce the volume of trade and increase the price of goods.

In the current system, restrictions on cross-Border commercial vehicle traffic mean that, on average, three trucks are necessary to carry goods from the interior of Mexico to the U.S. interior. For example, a long-haul truck carries freight to the Mexican Border from an interior Mexican state, where it is transferred to a short-haul drayage truck that carries the goods across the U.S. Border into the commercial zones. To move a shipment beyond the commercial zones, it must be transferred to a third truck based in the United States. The time required to complete these transfers within the Border commercial zones hinders the preferred "just-in-time" work process principles of many maquiladoras.

Federal Initiatives

“Smart Border Plan” and Related Technology - a Means to Facilitate the Free Movement of People

Homeland security and improved trade processes are not mutually exclusive and can be accomplished simultaneously. To accomplish both, existing or new pre-screening programs should be considered to allow the federal and state governments’ to have advance knowledge of the people, freight, and vehicles crossing our borders. To be able to identify, in advance, the overwhelming majority of the individuals who cross the Border as law abiding and low-risk crossers, innovative technology with precise filtering devices can be used so that law enforcement personnel can focus on high-risk movement. Improving the capacity of Border inspection agencies to validate legitimate cross-Border pedestrians should be the basis for implementing new models of risk management.

The high volume of persons and vehicles crossing the Border may make the implementation of new technology appear daunting. However, it is not as difficult a task as it might appear. Aggregate border crossing numbers are somewhat misleading since so many of the vehicles, drivers, and pedestrians are local, frequent travelers. For example, the 4.2 million recorded commercial vehicle southwest border crossings in 2000 were made by only 80,000 trucks. If even one-half of these trucks, or 40,000 were found eligible for low-risk crossing, it is conceivable that federal and state workloads would decline significantly, representing ongoing annual savings after an initial investment.

To address these issues and expedite the use of new technologies at Border ports-of-entry, the following priorities for implementing a U.S.-Mexico “Smart Border Plan” should be addressed.

- The U.S. Customs and Border Protection should push forward initiatives such as the Trusted Traveler programs that allow regular border crossers access to rapid inspection.
- Develop common biometric identifiers in documentation such as permanent resident cards. Use innovative technology to develop and deploy a commuter or secure identity card for permanent residents that includes a biometric identifier to allow for the timely determination of legitimate crossers,
- Promote and encourage manufacturers and the trade community to enroll in the U. S. Customs’ pre-clearance programs—the Border Release Advance Screening & Selectivity (BRASS), the Business Anti-Smuggling Coalition (BASC), and the Carrier Initiative Program (CIP), by encouraging dedicated trade lanes with expedited crossing for those who participate in these programs,

Steps to Secure Infrastructure

1. Long Term Planning - Develop and implement a long-term strategic plan that ensures a coordinated physical and technological infrastructure that keeps pace with growing cross-border traffic,
2. Relief of Bottlenecks - Develop a prioritized list of infrastructure projects and take immediate action to relieve bottlenecks,
3. Infrastructure Protection - Conduct vulnerability assessments of trans-border infrastructure and communications and transportation networks to identify and take required protective measures,
4. Harmonize Ports of Entry Operations - Synchronize hours of operation, infrastructure improvements, and traffic flow management at adjoining ports-of-entry on both sides of the U.S.-Mexico Border,
5. Cross-Border Cooperation - Revitalize existing bilateral coordination mechanisms at the local, state, and federal levels with a specific focus on operations at border crossing points, and
6. Financing projects at the Border- Explore joint financing mechanism to meet essential development and infrastructure needs.

Steps to Secure Flow of People

7. Pre-Cleared Travelers - Expand the use of the Secure Electronic Network for Traveler's Rapid Inspection (SENTRI) dedicated commuter lanes at high-volume ports-of-entry along the U.S.-Mexico Border. As of May 2008, SENTRI had 165,166 members enrolled.²⁴
8. Advanced Passenger Information - Establish a joint advance passenger information exchange mechanism for flights between Mexico and U.S. and other relevant flights.
9. NAFTA Travel - Explore methods to facilitate the movement of NAFTA travelers, including dedicated lanes at high-volume airports.
10. Visa Policy Consultations - Continue frequent consultations on visa policies and visa screening procedures. Share information from respective consular databases.
11. Joint Training - Conduct joint training in the areas of investigation and document analysis to enhance abilities to detect fraudulent documents and break up alien smuggling rings.
12. Compatible Databases - Develop systems for exchanging information and sharing intelligence.

Steps to Secure Flow of Goods

13. Electronic Exchange of Information - Continue to develop and implement joint mechanisms for the rapid exchange of customs data.
14. Secure In-Transit Shipments - Continue to develop a joint-in-transit shipment tracking mechanism and implement the Container Security Initiative. In this new system, all containers brought into the U.S.

- would have to be registered 24 hours before their arrival and pre-screened for suspicious content.
15. Technology Sharing - Develop a technology sharing program to allow deployment of high technology monitoring devices such as electronic seals and license plate readers.
 16. Secure Railways - Continue to develop a joint rail imaging initiative at all rail crossing locations on the U.S.-Mexico Border.
 17. Combating Fraud - Expand the ongoing Bilateral Customs Fraud Task Force initiative to further joint investigative activities.
 18. Contraband Interdiction - Continue joint efforts to combat contraband, including illegal drugs, drug proceeds, firearms, and other dangerous materials, and to prevent money laundering.

Response of Texas Transit and Freight to Higher Fuel Costs

Freight Impacts

The higher cost of energy is having a multitude of impacts on both freight and passenger transportation in Texas. Traditionally, freight operators are the first to respond when energy costs increase, given that their profit margins are so intimately tied to fuel costs. As would be expected, when energy cost first started to increase in 2003, the freight sector began initiating strategies to increase energy efficiency almost immediately. Truck fuel economy drops sharply at speeds higher than 55 MPH.²⁵ For this reason, major Texas shippers such as HEB instructed their drivers to reduce their speeds when on the highway.²⁶ Shippers searching for even greater gains in fuel efficiency are choosing to use rail where possible. After struggling to cover their cost of capital for much of the 1990s, Class I railroads have posted record profits in recent years. The Burlington Northern Santa Fe, for example, has seen its stock price more than double since 2005.²⁷

The railroads are doing everything they can to expand their capacity, yet the access to capital these privately owned companies is still comparatively limited when compared to that of the state or Federal government. For instance, in 2007 the Union Pacific was able to invest \$550 million into new capacity on its entire network.²⁸ Therefore expansions of rail capacity and corridors may not respond to new demand very quickly. Some of the rail corridors that have seen the strongest growth are those that run through Texas, specifically the Union Pacific that enters state of Texas at El Paso and the Burlington Northern Santa Fe which enters the state at the panhandle. The Union Pacific's Sunset Corridor grew from 32 trains per day between Los Angeles and Dallas in 1998 to 50 in 2007.²⁹

Estimates provided to the El Paso MPO by the Union Pacific in 2007 projected that their train throughput for east-west traffic will increase steadily through the year 2015. This is occurring despite the fact that imports through the ports of Los Angeles and Long beach have slowed with the economy. East West train throughput through El Paso is expected to increase by approximately 3 trains per day per year until 2015 when there could be as many as 70 trains transversing the city, principally in the east-west direction.³⁰ These estimates could clearly be impacted by sudden changes in the country's economic performance. Nevertheless, the Union

Pacific is making substantial capacity improvements in their east west “Sunset corridor” that should allow the company to provide a higher level of service to a broader range of customers in the near future. These improvements include double tracking the line from Los Angeles to El Paso and improving sidings and signaling in between El Paso and Dallas.

Due to the design of the tracks and the separation from city streets, growth in east-west traffic has not had a substantial impact on traffic congestion in the El Paso area in recent years.³¹ North south shipments of rail, however, are not as well protected from the surrounding city and therefore have significant impacts on traffic and safety on both sides of the border. It has been theorized that the increase in energy costs will also lead to a greater number of trains moving north-south through El Paso. According to Joel Rodriguez, Manager of the Burlington Northern Santa Fe (BNSF)’s Mexico Business Unit, of, a sharp increase in north-south traffic coming from Mexico to El Paso or vice versa is unlikely given the current constraints in infrastructure and the lack of rail manufacturing centers to the south of Juarez that would have ready rail access.³² Setting aside traffic congestion impacts, increased freight rail may also have air quality implications. In Los Angeles, the Southern California Association of Governments (SCAG) is already addressing the projected air quality impacts from future freight rail operations by proposing engine upgrades for locomotives and/or electrification.³³

When compared with trucks, freight trains are far superior to trucks in terms of the amount of pollutants they produce per ton carried, however, in absolute terms more trains will mean more pollution as the rest of the country continues to rely on the El Paso gateway in order to move consumer goods efficiently to and from the West Coast of the United States to the Midwest. Many of these goods are, and will continue to be, of East Asian origin. A comprehensive study by Cambridge Systematics for the American Association of Railroads demonstrated that in the next two decades, a substantial percentage of the freight rail network in the United States will become severely capacity constrained unless substantial resources, a percentage of which would come from Public-Private partnerships, are invested into the system.

The Cambridge Study estimated that a modest amount of public funding per annum could significantly reduce the severity of bottlenecks in the freight rail system through 2035.³⁴ It should be noted that the Cambridge Study envisioned freight rail playing its traditional role in handling certain key bulk commodity categories as well as a percentage of the transnational intermodal traffic. An expansion of the role of the freight rail system, so that it could transport time sensitive cargoes over shorter distances and compete more directly with trucking across markets, would likely require far more significant investment, most of which would have to come from the public sector.

Trucking companies in Texas are also making strides at improving their total fleet fuel efficiency. Firms are instructing their drivers to reduce their speed in order to minimize drag as well as limiting idling through the installation of alternative power units (APUs). These devices help to improve the environmental performance of trucks as well as their energy efficiency.³⁵ Another strategy being used by truckers is to increase the average weight of shipments to reduce the number of necessary loads. In the longer term, some trucking companies are expected to adopt hybrid engine designs to further improve their fuel efficiency.³⁶

Passenger Vehicles and Transit

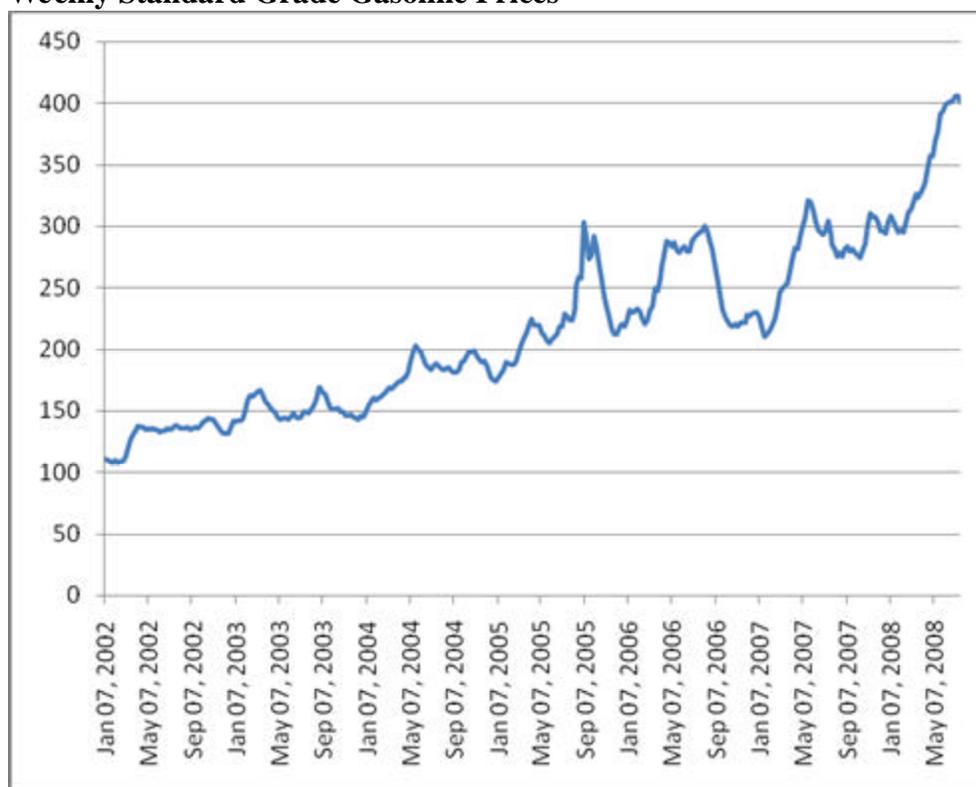
Higher energy costs have also begun to impact the patterns of activity for light vehicles. On the passenger side patterns of activity do not change as quickly as is the case for freight. Until this year, vehicle miles traveled continued to increase at a rate that was lower than the rate of increase in the 1990s, but still in a positive direction.



Source: Wall Street Journal "Funds for Highways Plummet As Drivers Cut Gasoline Use", Christopher Conkey
July 28, 2008

When the average cost of a gallon of gasoline first rose to over \$2 a gallon in 2005 and was not accompanied by a reduction in vehicle use, some wondered if the car culture was so deeply ingrained in the United States that no amount of economic incentive could lead to a sustained decrease in demand for driving. Yet recent evidence shows that a price level of between \$3 and \$4 a gallon is a threshold above which a significant share of consumers begin to cut back on gasoline consumption. The important variables are not only the spot price of fuel but also the perceived permanence of the change. Even the oil companies now admit that expensive fuel is here to stay.³⁷

Weekly Standard Grade Gasoline Prices



Source: Department of Energy

What are the Alternatives?

Given that most public transportation systems in the United States are relatively underdeveloped, it is not surprising that momentary changes in the price of energy do not always lead to a sudden shift to greater utilization of public transportation. For many Americans, public transportation simply has not been an option because it is deemed to be too slow, too infrequent or too unreliable.³⁸ Even after a family makes a conscious decision to try to make greater use of public transportation in order to hold down their expenses, it sometimes takes months to work out the logistics. When an auto dependent family wants to switch to using public transportation, several questions invariably arise such as: Who will pick up the kids from day care? Will I get fired if I miss the bus? Is it safe? What if I have to work late? As fuel prices surged in 2006 and 2007, these and other questions were discussed around kitchen tables all over the country. Yet in 2008, a transition point might have finally been reached. For one reason, families who had been talking about alternatives for years were now better prepared to put those plans into action. Secondly, the unabated rise of the cost of fuel accelerated the timetable, as Mary Peters –secretary of Transportation for the US DOT recently noted, “We’ve passed that tipping point”.³⁹

The 2008 decrease in the total VMT logged on the nation’s roadways is the first such occurrence in decades. Some of this missing VMT can be attributed to optional travel that was simply curtailed in the face of intolerably high energy fuel costs.⁴⁰ Some of it can also be traced

to a higher rates of vehicle occupancy as commuters turn to carpooling and trip chaining, yet a significant percentage of the VMT decrease was shifted to transit. All around the United States in 2008 transit use has been increasing.⁴¹ The surge has not been dramatic but it has been consistent and it is occurring in all areas of the country even those that do not typically see a significant percentage of the population using transit on regular basis. Evidence from most Texas cities reveals an uptick in transit use in 2008, and not only in the largest cities. In Laredo, for example and, transit use through the summer of 2008 was up 7% when compared to the same period in 2007.⁴² San Antonio's VIA system has seen ridership up 9.8% over 2007.⁴³ Express routes in Austin have seen a ridership surge of 55% compared to the same period in 2007.⁴⁴

John Hendrickson, who is a president of Waco Transit stated that "ridership is increasing dramatically" and that Waco transit estimates a double digit increase in ridership for 2008.⁴⁵ Mr. Hendrickson, who is also president of the Texas Transit Association, stated that he is heard of similar trends occurring from all of his number is in both small and large urban areas. The City of Waco has received several inquiries from local manufacturing businesses who are interested in financially assisting the transit agency in exchange for specialized service to serve their location so that their employees can afford to show up for work.

Given a consistent growth and transit usage several transit operators around the state are under stress.⁴⁶ Transit agencies are, after all, some of the highest users of petroleum based fuels. Across the country for every penny that fuel increases transit providers incur an additional cost of \$7.6 million.⁴⁷ Furthermore transit operators do not recover all of their costs through fares. For every rider one-half to two-thirds of the cost of providing the service comes from other sources therefore when the ridership of transit increases so does a requirement for transit subsidy. The increased cost of fuel is also leading transit operators to reevaluate their routes given that the cost of running empty or half empty buses in an environment of \$4.00 diesel is an untenable proposition.

As costs increase, certain cities such as Laredo are examining changing their routes in order to improve the efficiency of their operations and boost average vehicle occupancy. The increase in fuel impacts both small and large transit operators. The City of Waco for example has seen its fuel bill double in 2008. Fortunately, the city has also replaced a significant share of its fleet with more modern buses that have significantly improve fuel economy. Mr. Hendrickson stated that the average for the whole fleet serving the city of Waco was 3.2 MPG while the new busses have fuel economy of 4.5 MPG. This is due to the use of lighter materials in the buses and improved engine technology.

Texas cities should also look more seriously and electrified forms of transit that mitigate the impact of diesel fluctuations on total transit cost. A recent survey by the American public transit association showed that in 2008 the cost of diesel for transit operators rose by 43% compared to the previous year. However for those transit operators of electrified systems, their energy costs only rose 1.2%.⁴⁸ Another option that has already found favor within many Texas cities is the use of natural gas powered vehicles for transit service. Natural gas was originally introduced as a fuel for transit fleets due to its air quality benefits, however the relative stability of the price of natural gas when compared with diesel is increasing its attractiveness as a transportation fuel, particularly given the fixed budgets of transit agencies.

Of course for many Texans, transit will still not be a viable option. Many areas of the state in which a high proportion of the population is lower income, and desperately need affordable transportation, do not currently have access to adequate transit services.⁴⁹ The population that would benefit most from switching from personal automobile use to transit use often lives far from the city centers or in rural regions of the state. Increasing the quality of transit service and a percentage of the population with access to quality transit should be a priority for Texas. One region of the state that has been particularly impacted by the rising fuel costs has been the border region and South Texas. Cities such as McCallen and El Paso and are examining the possibility of light rail and commuter rail, options which could greatly increase the reach of transit services into suburban and rural areas.⁵⁰ In addition, the EL Paso City Council recently endorsed a comprehensive mobility plan.⁵¹

In this area, Texas could study the examples of states such as New Mexico - a sparsely populated state with a significant lower income population that has recently established an intercity commuter rail system.⁵²

Nationwide, transit is also under threat from transfers from the Federal government given revenues from gasoline taxes are falling and the administration has proposed using federal transit funds to patch the gap. On July 29 the New York Times reported that Secretary Mary Peters is recommending for the Federal Dept transportation to borrow funds from the highway trust fund's mass transit count in order to finance roadway improvements. This diversion is required, according to Secretary Peters, in order to fill the gap resulting from a reduction in vehicle miles traveled in 2008. This idea however comes at precisely the time when funding for transit is most urgent due to the surge in usage. The administration's plan to take money from the mass transit account to shore up the highway trust fund is in opposition to a bill passed in July of 2008 by the U.S. House of Representatives that would spend eight billion dollars of general tax revenue on transportation thereby filling the gap created by the drop in VMT.⁵³

The Bush administration expects to release a projected budget deficit for the highway trust fund of five billion dollars for 2009. This is one of the first times that the highway trust fund will have run a deficit since its inception in the 1950s. Part of the shift from intercity auto travel is being captured by Amtrak as ridership has increased by 11% this year.⁵⁴

The rising cost of energy has ripple effects throughout the US economy. No state, city or sector is immune. Providers of transportation services, from freight to transit, are taking steps to increase their energy efficiency and reduce their exposure to the expected continued volatility in the energy market. Nevertheless, positive steps taken to improve the overall energy performance of the transportation system may have deleterious impacts for certain populations or for certain periods of time. Examples include the impacts of the unprecedented drop in VMT, which will lead to lower demand for petroleum and lower congestion in certain areas, yet is simultaneously undermining the trust fund for the road network. Another example is an energy-saving shift from trucking to rail which may have side impacts on cities that are bifurcated by rail corridors.

While the provision of new and improved infrastructure is clearly a major component of the solution, the choices made by consumers and freight providers will also play a role. The propensity of society to change its pattern of behavior is infrequent, yet its impact can be felt far

more drastically and immediately than the impact of any planned infrastructure project. The federal government at present does not have a coherent plan to accommodate the impacts of even relatively minor changes in transportation behavior that have been witnessed so far in 2008. It is up to local stakeholders to fill in the gaps.

Integration of Border Planning with Corridors of National Significance

Key U.S.-Mexico border ports-of-entry are located on international trade corridors linking Mexico, the United States, and Canada. The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) emphasizes continued federal interest in identifying and promoting key international highway trade corridors in the United States. U.S.-Mexico border states should continue to expand efforts at border corridor planning coordination. Border corridor plans should recognize the role of border ports-of-entry on selected international corridors and ensure that their contributions to transportation effectiveness and efficiency is explicitly recognized. In the future, trade corridors may qualify for a variety of federal transportation funding, and the border region needs to be clearly recognized as part of the U.S. corridor program. By clearly stating the case for new trade corridor investment along the Border, we will establish the foundation to support future requests for federal funding for the Border Region.

In addition, a corridor analysis of trade flow can produce substantial benefits for both planners and users. Corridor planning considers the overall efficiency of a transportation corridor by analyzing how efficiencies along the corridor benefit the corridor overall. Evidence supports the separation of trade flows and transportation flows because the two can differ so extensively. Enhancing our understanding of how corridors work will lead to a better use of resources, while a regional analysis of transportation flows will make a stronger case for federal support. Finally, the bi-national nature of U.S.-Mexico will allow us to synchronize investment plans with the Mexican Ministry of Transport.

SENTRI and DCL's

In many border communities, residents on both sides of the border work on the opposite side and often spend long periods of time waiting in line at border crossings. Dedicated Commuter Lanes (DCLs) at major crossings help eliminate delays and related vehicle congestion. DCLs are designated traffic lanes at border ports-of-entry that are restricted to the vehicles of drivers that have passed a background check qualifying them for expedited entry and minimal inspection. These automated lanes encourage commerce and strike an effective balance between the importance of law enforcement and the free movement of people and trade. In addition, fewer vehicles waiting in traffic also mean lower emissions. DCLs have been in place at ports of entry on the U.S.-Canada Border for many years and are currently being used on the U.S.-Mexico Border in Otay Mesa, California, and in El Paso, Texas. In 2008, CBP expanded DCL operating hours at both locations.

With the launching of the Western Hemisphere Travel Initiative in 2008, oral declarations of US citizenship can no longer be accepted.⁵⁵ This new restriction, which was the result of the Intelligence Reform and Terrorism Prevention Act of 2004 (IRTPA), heightens the need to speed the adoption of rapid inspection documents. In 2006 "frequent-crossers" lanes

were open in Laredo and El Paso and in the planning stages for Brownsville and Hidalgo. The SENTRI (Secure Electronic Network for Travelers' Rapid Inspection) lane allows selected motorists to avoid long waits at international ports of entry. SENTRI was first implemented at Otay Mesa, CA, in 1995, and in El Paso, TX in 1999. SENTRI lane users will have their vehicles equipped with a transmitter that sends identifying information to an inspector's computer. SENTRI users can expect to wait no more than 15 minutes at even the heaviest commuting hour. The program will initially be available only to Mexican motorists entering the United States.

FAST Lanes

FAST (Free and Secure Trade) have been opened in El Paso, Laredo and Brownsville. These pre-clearance lanes are high volume manufacturers who are certified (C-TPAT) as having secured their supply chain, employees and facilities. As of April 2008, 87,000 commercial drivers are registered under FAST.

Trans-Texas Corridor

The Trans-Texas Corridor Plan outlined a new vision for transportation in Texas. It provides a design concept, identifies priority corridor segments, and details tools that could finance its development.

Since this report was last issued activities to develop the Trans Texas Corridor have moved forward. Firstly, two priority highway corridors were identified in the Trans Texas Corridor Action Plan as requiring congestion relief. These are TTC -35 which will parallel the heavily congested I-35 corridor from Oklahoma to Mexico/Gulf Coast area and TTC-69 which will run from Texarkana /Shreveport to Laredo and the Rio Grande Valley. TTC-69 forms a segment in the national I-69 project which runs from Canada to Mexico which has been planned for over 20 years. I-69 is designated as a congressional high priority corridor and can be seen in Figure 5.



Figure 5: National I-69 Corridor

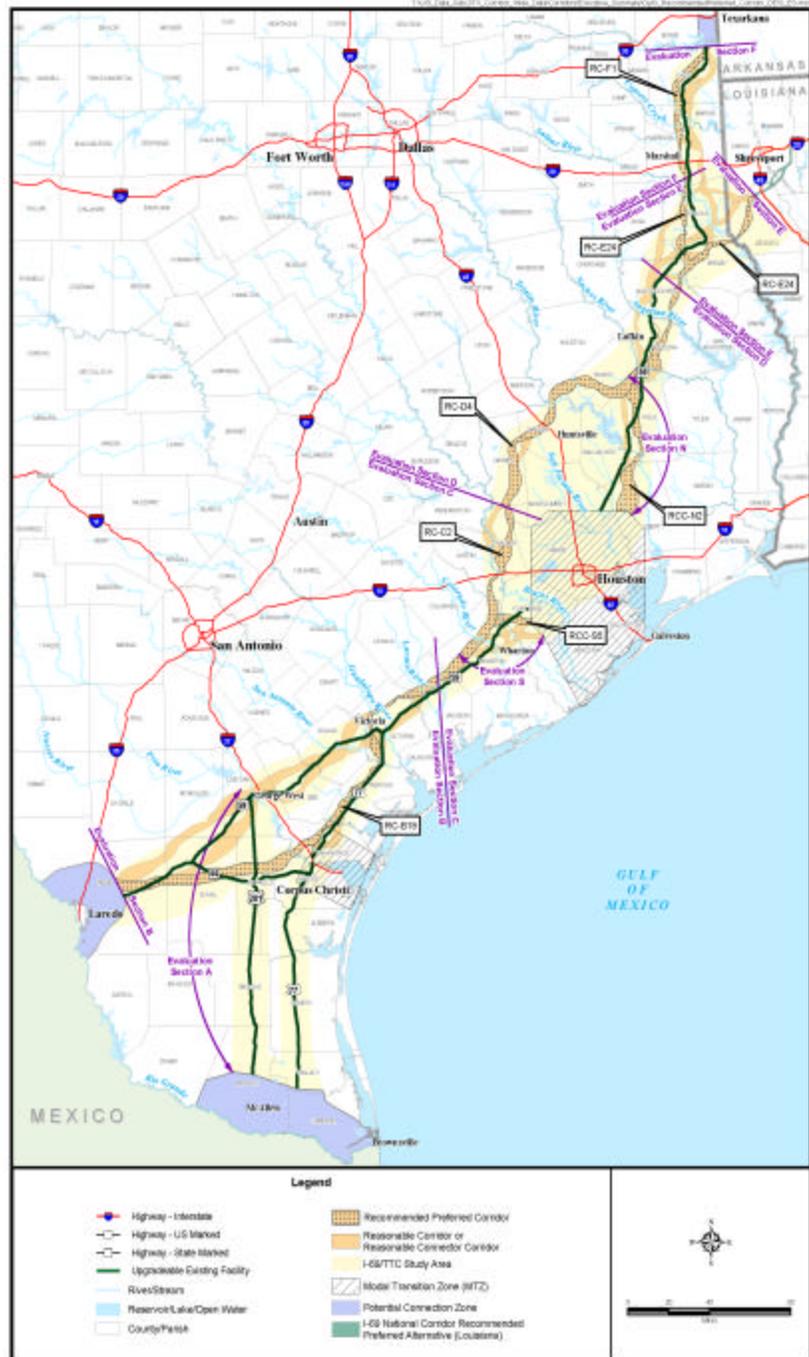
The draft environmental review for the I-69 corridor was released in November 2007. 47 public meetings have been held by TxDOT throughout the State during Spring 2008 and over 28,000 comments were received on TTC-69. The initial environmental impact statement recommended corridor alternative was to focus on using existing highways with new corridors as a secondary option. Figure 6 shows the proposed I-69 corridor in Texas with two spurs one

going to Laredo one down to the Lower Rio Grande Valley. In June 2008 TxDOT announced that it would recommend to the FHWA that TTC-69 use existing highway facilities wherever possible.⁵⁶ The next tier of environmental review for TTC-69 is expected to be released during Fall 2008.

The Transportation Commission also created two TTC Citizens Advisory Committees which will advise the TxDOT on issues to be addressed in planning these corridors. The committees will serve through December 2009. Corridor Segment Advisory Committees have also been formed to assist TxDOT in identifying final routes for corridor segments. The Segment Committees were appointed by local entities. These new committees followed on from the original TTC Advisory Committee's which issued reports from 2005 through 2007.

In June 2006 two groups submitted unsolicited proposals to the TxDOT expressing interest in developing TTC-69. As of June 2008 no contracts have been signed to develop or finance TTC-69. More information on TTC-69 can be found at <http://ttc.keeptexasmoving.com/projects/i69/deis.aspx>.

Figure 6: TTC-69 Potential Corridor Spurs



Policies for Investment in Border Infrastructure

Adequate transportation infrastructure along the Texas-Mexico Border is critical for a prosperous state economy. The Texas-Mexico Border region's ports-of-entry and highway infrastructure are being strained by increasing international trade, the continuing growth of the maquiladora industry, a growing population, and the accompanying expansion in commercial and commuter traffic. Some estimates show that truck traffic is expected to increase by 85 percent during the next three decades.⁵⁷ According to TxDOT officials, one fully loaded 18-wheel truck causes as much damage as do 9,600 cars. International trade through the three TxDOT border districts will only continue to increase as a result of Mexico's free trade policy, new transportation infrastructure in Mexico's northern region, and continued growth of direct foreign investment in Mexico. This increase will further strain already inadequate Border transportation infrastructure.

If the Border Region is to realize its economic potential and compete successfully in the global economy, the roads and bridges that support this trade—the greatest volume of overland trade in the U.S. demand the state's increased attention. In response, TxDOT should consider the Department's districts adjacent to the Border with Mexico to be a distinct category to be given preference in relation to the amount and importance of international trade using state transportation infrastructure in those districts. Additional resources in terms of increased funding for infrastructure and for planning and capacity will recognize the special challenges that the districts have in addressing these problems and will enable district staff to work more efficiently with Mexican federal and state highway entities. The latter becomes more crucial with the opening of the U.S.-Mexico Border to Mexican truck traffic, which will almost certainly cause changes in flow patterns and will add to the stress that is now being experienced in trade movements.

Revising Funding Formulas to Address Damage Done by NAFTA Truck Traffic

While the sizable increase in commercial truck traffic alone is sufficient to cause increased road wear, the effect of overweight trucks traveling on our state roads results in millions of dollars in accelerated road and bridge deterioration annually. A TxDOT task force has made recommendations to make formulas for preservation/rehabilitation funding categories more responsive to the needs and roadway conditions in corridors with heavy truck volumes. While NAFTA-related truck traffic has significantly increased wear and tear on highways, roads and bridges in Border communities and on our state's major trade corridors, funding formulas used by TxDOT to allocate maintenance funds may not adequately reflect the current cost of repairing road and bridge damage caused by NAFTA-related truck traffic. TxDOT should study factors that cause road damage and revise its funding formulas to reflect and address damage done by NAFTA-related truck traffic.

Intermodal Hubs as a Means of Economic Development

By providing a central location where cargo containers can be easily and quickly transferred between trucks, trains, and planes, intermodal hubs at key locations on the Border would boost NAFTA-related trade. In addition to being more efficient, intermodalism is cheaper for shippers than using ordinary trailers or railroad cars. Well-designed, strategically located intermodal hubs outside of cities' congested urban centers would help speed the flow of raw materials and finished goods across the Border. By reducing shipping times, such hubs would make local manufacturers more competitive and help attract new businesses engaged in value-added processing.

The City of El Paso is already working on a proposed joint-use intermodal facility to be located at Biggs Army Airfield on the grounds of Fort Bliss. The project is part of a Department of Defense pilot program that encourages development and joint use of facilities on military reservations by the public and private sectors. Locating an intermodal hub at Biggs Field would allow ready access to border crossings, major highways, the Union Pacific railroad, and the El Paso International Airport. According to El Paso officials, the proposed facility would cost about \$500 million and will require both state and federal funds. In addition to the private sector, the Mexican government would be asked to contribute to such a facility.

The proposed intermodal hub would serve as an economic catalyst to help develop El Paso's potential as a key player in international trade. Instead of moving products through El Paso, the new infrastructure would circumvent the crowded city-center and attract new industries to currently underdeveloped areas. This manufacturing growth, along with enhanced cargo handling capabilities, will strengthen the regional economy. Finally, the proposed intermodal hub would also enhance the strategic value of Fort Bliss, White Sands Missile Range, and Holloman Air Force Base as "power projection platforms" for the rapid deployment of troops, equipment, and supplies, thus making those installations less vulnerable to future base closing efforts. The state should help Border communities such as Brownsville, Laredo, and El Paso plan and develop intermodal hubs and related infrastructure. In 2005, the Transportation Equity Act allocated \$14 million for the regional intermodal rail project to enhance intermodal service in El Paso and relocate rail yards from the downtown.⁵⁸

Bi-national Membership on Border MPO's

Metropolitan Planning Organizations (MPO) are the policy advisory boards that direct the future of transportation projects and systems in urbanized areas. The majority of MPOs across the state have the ability to plan throughout a "360-degree" radius of their respective MPO regions. In contrast, MPOs along the Texas-Mexico Border region can only plan throughout a "180-degree" radius of their respective region, because the areas covered by these MPO's share borders with Mexico. El Paso, for example, must coordinate planning efforts with two nations (U.S. and Mexico), three states (Texas, New Mexico and Chihuahua, Mexico), and two cities (El Paso, Texas and Ciudad Juarez, Mexico). The combined populations of El Paso (570,000) and Ciudad Juarez (1.3 million) form the largest international metroplex in the world, both dependent on a regional transportation system that is safe, efficient and effective.⁵⁹ In the case of the Laredo TxDOT district, planners must coordinate their projects with two different Mexican states (Tamaulipas and Nuevo Leon). Although international coordination between

Texas and Mexican planners does occur, this joint planning is not officially recognized by the Texas Department of Transportation (TxDOT). Instead, TxDOT simply serves as a cooperative entity with regional planners.

Under current federal law, MPO membership is limited to local elected officials, officials of local public transportation agencies, and certain state officials. We must work with the United State Congress to amend federal law pertaining to membership on MPO policy committees to include foreign representatives. This will enable MPOs along the Border to work closely with their counterparts in Mexico.

110th U.S. Congress: Developments in Transportation Funding & Planning

Since the 109th Congress and the passage of SAFETEA-LU Congress has been looking to the future. This has included starting the process for the reauthorization of the transportation bill, responding to the I-35 bridge collapse in Minneapolis in the summer of 2007, designating corridors of the future in the U.S., and reviewing how to keep trade flowing in the U.S. via all modes, highway, rail, air, rivers and ports. Congress has also been reviewing climate change initiatives, which include increasing Corporate Average Fuel Economy (CAFE) standards for passenger vehicles, implementing renewed emissions standards for heavy duty trucks and most importantly, for our purposes, reviewing the cross-border trucking demonstration program.

Congress has also been looking to improve and shore up the Highway Trust Fund (which is estimated to become insolvent during 2009-2010, and making specific technical corrections to SAFETEA-LU to clarify and ensure that Congressional intent on several provisions. The House Joint Resolution 1195 - The SAFETEA-LU Technical Corrections Act of 2008 amended multiple areas of SAFETEA-LU (P.L. 109-59). For example, one correction will ensure the biennial Conditions and Performance Report, which US. Congress provides to policy makers, continues to provide an objective appraisal of highway, bridge and transit finance, physical condition and operation performance and Section 103, Projects of National and Regional Significance and National Corridor Infrastructure Improvements projects also saw technical corrections being made.

Climate Change Legislation

The US Congress has also been involved in proposing new legislation regarding climate change. Currently there are 12 bills before congress that are related to climate change.⁶⁰ Figure 7 shows how these bills would reduce emissions from current levels.

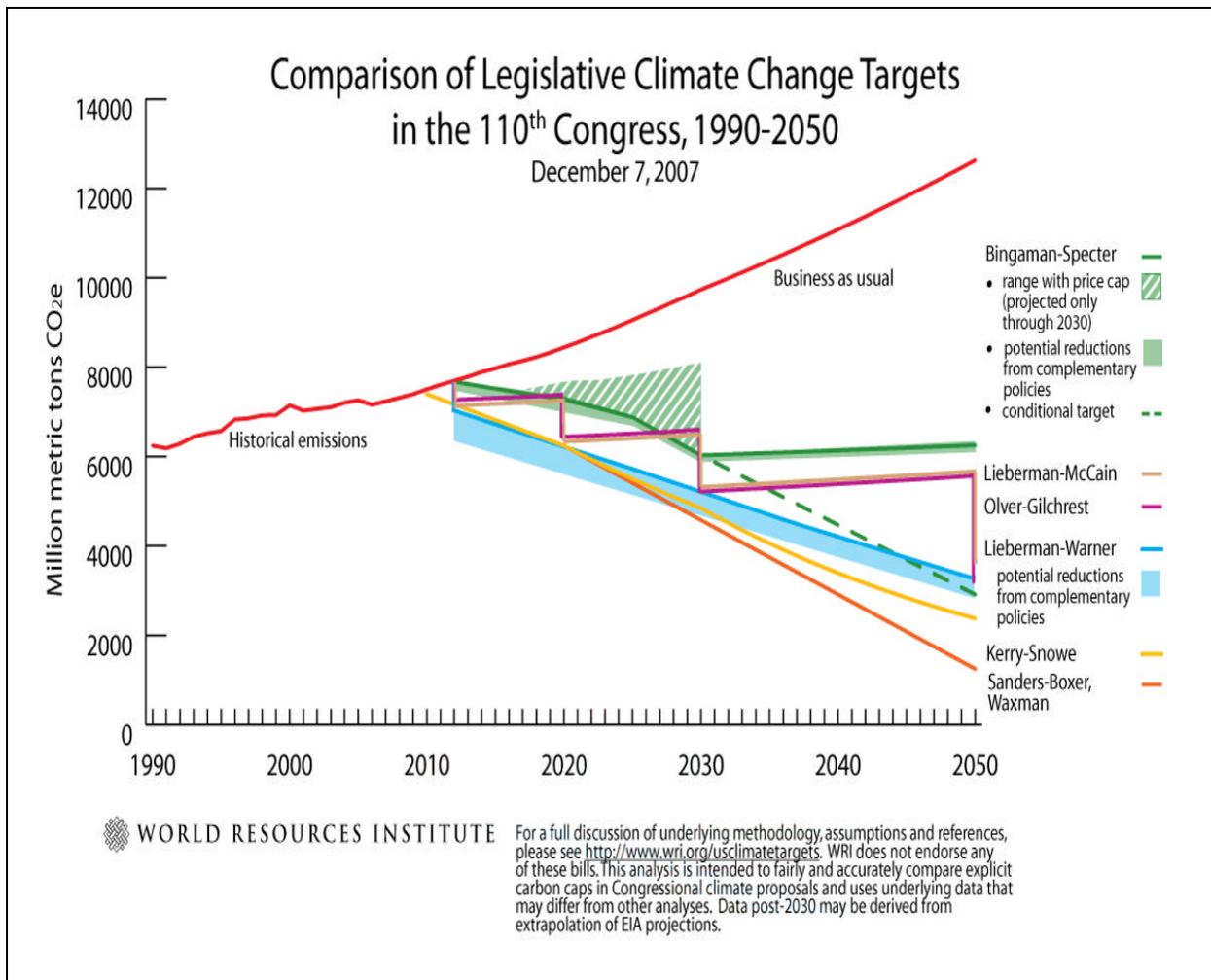


Figure 7 Comparison of Climate Change Bills

Source: World Resources Institute

In May 2006 the Senate Sub-Committee on Transportation and Merchant Marine Infrastructure, Safety and Security held a session reviewing CAFE standards. As the rising price of gasoline has hit the U.S. both the private and public sector have called for higher CAFE standards to be implemented to assist drivers.

During June 2008 the Senate debated the Lieberman-Warner Bill but decided not to bring this up to the floor for a vote.⁶¹ Congress is now not expected to take up climate change legislation until after the Presidential Election in 2008.

Opening the Southern Border to Mexican Trucking

The House Subcommittee on Highways and Transit held a hearing during March 2007 regarding U.S. Mexican Trucking: Safety and the Cross Border Demonstration Project. This project was announced by the Secretary of Transportation Mary Peters in El Paso on February

23, 2007. This hearing reviewed the status of cross-border trucking operations between the U.S. and Mexico. Under the demonstration project 100 Mexico-domiciled motor carriers would be given long-haul access to U.S. roads beyond the normal commercial zone, and 100 U.S.-domiciled carriers would be given reciprocal rights into Mexico.⁶²

Until recently, Mexico-domiciled motor carriers were only permitted to operate in special commercial areas along the U.S.-Mexico border. These zones - narrow commercial strips that range from three to 20 miles wide - are found in Arizona, California, New Mexico, and Texas. The magnitude of these crossings into Texas should not be underestimated. According to the Senate Committee on Transportation in 2005, DOT reported 4.7 million truck crossings into the U.S. from Mexico. Of these crossings, 68 percent occurred at the 11 border crossing points in Texas (with California, Arizona and New Mexico bringing up the rear respectively at 24% at five California crossings, 7% at six Arizona crossings, and 1% at two New Mexico crossings). There were 13,957 active Mexico-domiciled motor carriers registered with FMCSA in 2005, which employed 41,101 trucks ("power units") and 33,067 commercial drivers. According to the Bureau of Transportation Statistics (BTS), in 2005, commercial trucks carried over \$491 million, or 62 percent, of the total value of NAFTA merchandise trade. Of this according to BTS total U.S.-Mexico trade transported by truck reached \$196 billion in the same year. This was a six percent increase from 2004, and represents 67 percent of all U.S.-Mexico trade in goods, in terms of dollar value.

The majority of truck cargo crosses into the U.S. from Mexico by way of short-haul "drayage" operations. Mexican drayage firms provide connecting service between long-haul Mexican carriers and long-haul U.S. trucking companies, picking up loads on the Mexican side of the border and dropping off goods at transfer facilities in the commercial zone in the U.S. Because of the prevalence of drayage operations, involving the same trucks crossing back and forth many times a day, the number of crossings is higher than the number of distinct Mexico-domiciled trucks that cross into the U.S.

The initiation of the pilot program followed an announcement in Monterrey, Mexico that the U.S. and Mexico had reached an agreement for U.S. inspectors to conduct safety audits on-site in Mexico. DOT has long viewed this as the final step to opening the border.

Under the program the Federal Motor Carrier Safety Administration (FMCSA) selects the companies. Approximately 860 applications were received from Mexico-domiciled motor carriers seeking long-haul operating authority in the U.S. Out of this pool the FMCSA narrowed the pool down and selected the 100 carriers to participate in the pilot program. The operators in the program will be granted authority to continue past the border zone to make international deliveries, as well as pick up loads to transport from a point within the U.S. to Mexico. They will not be permitted to provide domestic point-to-point transportation service within the United States. Drivers in this program will be required to meet U.S. safety requirements to operate beyond the commercial/border zone. According to William Quade of the Federal Motor Carrier Safety Administration by February 2008 they had completed 91 audits (a pre-authority safety audit): 63 passed and 28 failed.⁶³

This development followed many years of negotiation, as well as arbitration under the provisions of NAFTA, and concerns generated by stakeholders within the U.S., including environmental and safety concerns. This culminated in the U.S. Supreme Court decision in June 2004 which ruled that FMCSA did not have to do a detailed environmental impact study of the opening of the border.

As at June 2008 16 of Mexican domiciled carriers had been authorized under the pilot program to operate in the U.S. and 5 U.S. Domiciled carriers had been authorized to operate in Mexico. Out of the group of 16 authorized carriers, nine were actively using the authority.⁶⁴

Rising Gasoline and Diesel Prices

Finally, no review of Congressional activity could not take into consideration the high gasoline prices that have been in evidence over the past year. Higher gasoline and diesel prices will impact all facets of transportation. Currently the high cost of diesel is putting tremendous pressure on the trucking industry, including the drayage industry that is vital to border competitiveness and supply chains to the Maquiladoras. In the long run, strategies to improve the overall fuel efficiency of the freight sector, such as shifting a greater percentage of cargo to rail, are likely to gain traction.

Figure 8 shows the dramatic increase of market crude prices that we have witnessed in the first six months of 2008.⁶⁵

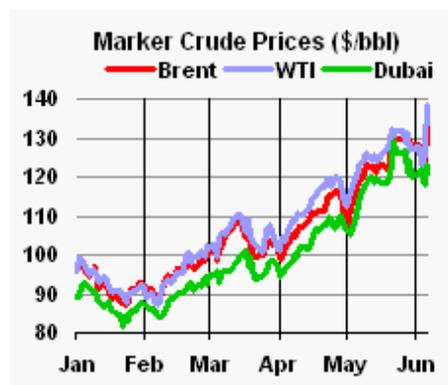


Figure 8: Market Crude Prices January – June 2008

Source: IEA

Congressional committees have begun to take up the mantle of reviewing high costs of gas. Both the senate and house committees on transportation called executives of the oil industry to hearings in May 2008. The House Subcommittee on Highways and Transit held a hearing on diesel prices in May 2008. The hearing reviewed the relationship among motor carriers, brokers, shippers and independent drivers regarding setting and collecting fuel surcharges.

80th Texas Legislative Session - State Developments in Transportation Planning

The 80th Texas legislative Session saw changes enacted to transportation law and code. The session culminated in the passage of S.B. 792 which was signed by Governor Perry on June 11, 2007. The legislation had a significant impact on the financing and development of toll roads. Specific provisions of S.B. 792 include:

SB 792 doubled the current authorization for 'Ogden Bonds'. TxDOT is now authorized to issue up to \$6 billion in bonds in an amount not to exceed \$1.5 billion each year.

SB 792 implemented a moratorium on the use of Comprehensive Development Agreements (CDA) entered into on or after May 1, 2007 between a toll entity (TxDOT, RTA, RMA or county toll authorities) and the private sector.

- There are exceptions to the moratorium for specific projects, including a project located in a border county with a population of 300,000 or more (El Paso, Cameron and Hidalgo) In El Paso the project must be in the approved MPO plan prior to May 1, 2007.
- Another exception is for adding managed lanes to 'existing' controlled access facilities in non-attainment or near non-attainment areas and for which a request for qualifications had been issued before May 1, 2007.
- The bill also changed the terms for CDAs, these are now limited to a maximum of fifty years from the date of final acceptance of the project or the start of revenue operations.

The moratorium provisions expire on September 1, 2009 and coincide with the scheduled review of TxDOT by the Sunset Advisory Commission. Concession CDA authority for TxDOT and RMAs will expire on August 31 2009, while design-build authority extends to August 31, 2011.

SB 792 added a new Chapter 371 to Transportation Code which applies to all toll project entities. It added new requirements that must be complied with prior to, or in connection with, entering into a CDA and include:

- Require toll project entity to submit CDA to Attorney General for review
- Require submission of names of short-listed proposers, a copy of the CDA, and a copy of the proposal submitted that is considered the *apparent* best value proposal.
- Submission of traffic and revenue report to State Auditor
- Prohibition of non-compete clause in a CDA (but provides for compensation for a loss of toll revenue attributable to the development of certain projects)
- Disclosure of information at a public hearing
- Permits the issuance of bonds for making termination payments under a CDA.

SB 792 also created a process called Market Valuation Process and Local Toll Project Entity Primary. Under the legislation local toll project entities (RMAs, RTAs and county toll authorities) are to have primary responsibility for toll project development within their areas.

However, SB 792 contained a new procedure governing the development of new toll roads – the market valuation analysis. A market valuation process must be conducted for all toll projects. The only exceptions are for projects that had a request for qualifications issued prior to May 1, 2007 or if TxDOT and the local entity agree to another process. The market valuation is to set out all the terms of the toll agreement including:

- Initial toll rates
- Toll rate escalation
- Project scope
- Traffic and revenue projections
- Estimated cost to finance, construct, maintain and operate
- Other factors

Once the Market Valuation process is initiated a series of deadlines must be adhere to throughout the process which also includes a timeline for environmental review as well as options for TxDOT to take over the project if the local entity declines to undertake the project.

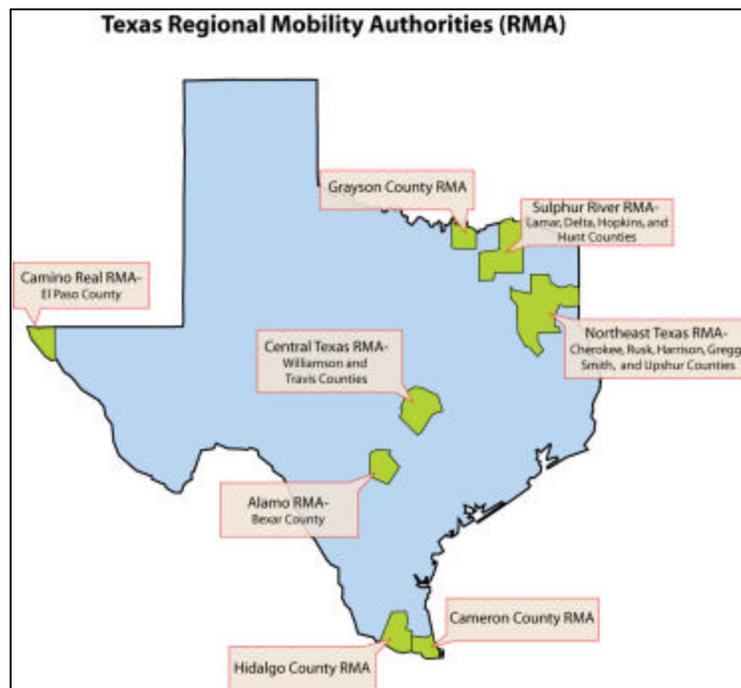
Finally, SB 792 also created a Legislative Study Committee which is commissioned to conduct public hearings and study public policy implications of the concession CDAs. This committee must prepare a written report by December 1, 2008.

Border Trade Advisory Committee

Senate Bill 183 of the 79th Texas Legislative Session called for the establishment of a Border Trade Advisory Committee (BTAC) and authorized its formation with a charge to define and develop a strategy and make recommendations to the Transportation Commission and Governor for addressing the highest priority border trade transportation challenges. The BTAC has met twice throughout 2006 and last met during October 2007.

Regional Mobility Authorities

A regional mobility authority (RMA) can study, evaluate, design, finance, acquire, construct, maintain, repair and operate transportation projects, including a toll project. TxDOT approval is required for the construction of all RMA projects that connect with the state highway system. A regional mobility authority may also construct, maintain, and operate rail, air, and



public utility facilities, but no State Highway Fund money or general revenue may be used for these non-roadway projects. Earmarked federal funds may be used.

The prior statute primarily limited RMAs to developing turnpikes. H.B. 2702 authorized TxDOT to delegate oversight and development of pass-through toll projects to RMAs. SB 792 made a few changes to transportation code vis-à-vis RMAs: these mainly pertained to obligations of board members.

To date eight RMAs have been created in Texas: Alamo County RMA, Central Texas RMA, Grayson County RMA, North East Texas RMA, Sulfur River RMA. Three RMAs are found along the border – these are: Camino Real RMA in El Paso, Cameron County RMA and Hidalgo County RMA. Figure 9 shows where these RMAs are located in Texas.

Rail Facilities

As previously noted in this chapter, rail service is critical in Texas. The amount of freight currently carried by railroads in Texas is the equivalent of some 13 million annual truckloads. Over \$1 billion in wages are paid to Texas railroad employees annually. However, between 1981 and 1995, more than 2,270 miles of tracks were abandoned in Texas.⁶⁶ Figure 10 shows these abandoned rail lines some of which run close to or from the Border:

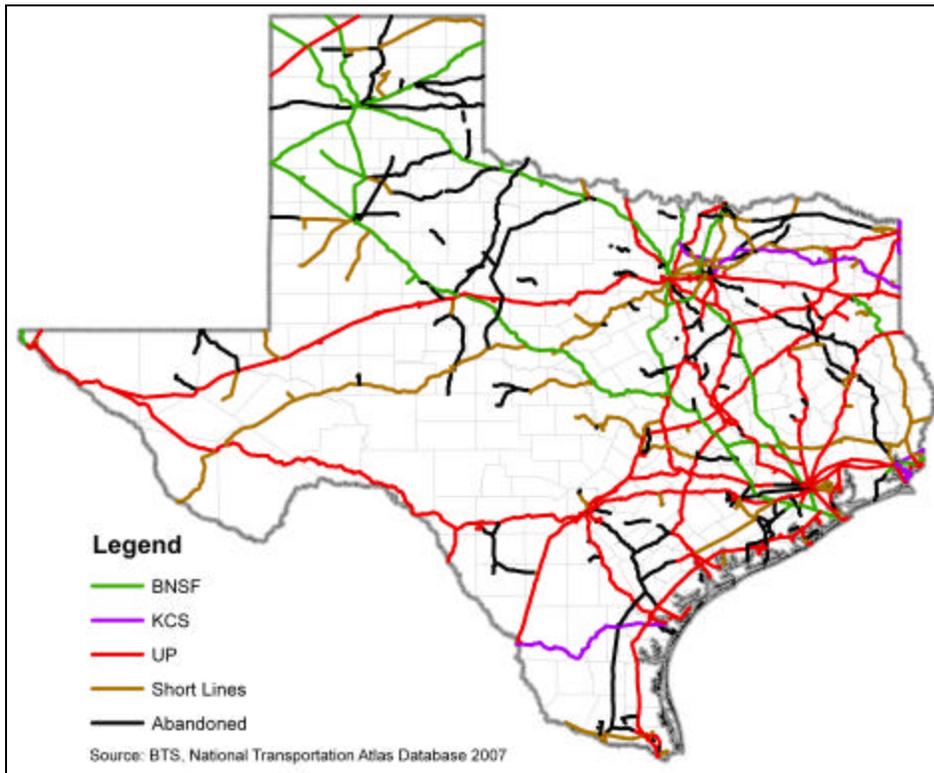


Figure 10: Abandoned Rail Lines in Texas.

The abandonment of facilities has restricted the ability to develop potential alternative routings that could allow rail to bypass city centers. Other restrictions have also further complicated the movement of freight rail across the borders. For example, Ciudad Juarez has placed temporal restrictions on the movement of north-south trains through the city. It is hoped that the Rail Relocation and Improvement Fund, authorized by voters in November 2005, will provide a framework for shifting rail lines and rail yards from within our central cities. To date no funds have been appropriated to this fund.

Article 4 of H.B. 3588 also gave TxDOT the authority to plan, construct, maintain and operate rail facilities or systems, including the acquisition and development of existing facilities. The Department may use any available funds to implement the new chapter, including funds from the State Infrastructure Bank. To date TxDOT has not built any rail facilities.

Bonds and Public Securities

During the 80th Legislative Session Senate Joint Resolution 64 placed proposition 12 on the Texas Ballot. This would authorize up to \$5 billion in bonds for transportation projects. The initiative was passed by the voter by 63% for and 37% against.

Proposition 12 would allow TxDOT to issue general obligation bonds of the State of Texas in an aggregate amount not to exceed \$5 billion. A portion of the proceeds of sale of the bonds and interest earned on the bonds may be used to pay administration costs, expense of issuance of the bonds and a part of a payment owed under a credit agreement.

Although the new bonding authority does not provide “new” money, bond proceeds make it possible for the Texas Transportation Commission to afford more transportation projects by offering the Commission the option of accelerating some construction. This would be accomplished through the issuance of debt, which will be retired out of State General Revenues.

The Texas Mobility Fund

Voter approval of Proposition 15 in 2001 and enactment of enabling legislation by the 77th Legislature created the Texas Mobility Fund. The Texas Transportation Commission can issue bonds that are secured by the Texas Mobility Fund. Funds can be used to finance road construction on the state-maintained highway system, publicly owned toll roads, or other public transportation projects.

The Texas Transportation Commission administers this fund to finance acquisition of right of way, along with design, construction, reconstruction, and expansion of state highways. Further, the Commission administers the fund to provide participation in the costs of publicly owned toll roads and other public transportation projects.

As of August 2007 The Mobility Fund had received \$341,711,339 in dedicated revenue and TxDOT had issued over \$ 3.95 billion in bond issuances. Statute regulates the issuance to no more than \$1 billion in any fiscal year. TxDOT planned to issue the remainder in 2008.⁶⁷

Dedicating additional transportation related fees to the Texas Mobility Fund would allow the Department to accelerate the delivery of much needed transportation projects in Texas. More revenue dedicated to the fund would reduce congestion on the state highway system, provide

safety improvements, increase economic development opportunities, and maximize limited transportation dollars. Some examples are: motor vehicle certificate of title fees, motor carrier permit fees (oversize / overweight permit fees), motor carrier registration fees, single state registration fees, motor carrier proof of insurance, salvage dealers license fees, and personalized license plate fees.

Pass Through Tolls

H.B. 3588 passed in the 78th Legislative Session allowed TxDOT to utilize pas-through tolls to fund infrastructure projects. Pass through tolls provide a per vehicle fee as reimbursement of development and construction of highways. In this way municipalities and counties could decide to build infrastructure and then get reimbursed by TxDOT on a per vehicle use basis. Similarly TxDOT could provide funding that would then be paid back by the counties. H.B. 2702 further refined pass through tolling legislation so that private entities' could reimburse TxDOT for the construction of highway facilities on a per vehicle or per mile basis. TxDOT can also delegate authority and oversight of the development of pass-through financing projects to municipalities, county RMAs and to Regional Transit Authorities. By May 2008 13 pass-through toll financing projects had been executed with local entities and 16 were approved for negotiation by the Commission. One pass through tolling project had already been granted authorization to issue request for competing proposal to private entities.

For the border counties Grayson RMA was the first to request a pass through tolling agreement. In November 2004 TxDOT authorized for negotiation on an extension of State Highway 289. This project was approved in March 2006. El Paso saw an unsolicited proposal received from the private sector (J.D. Abrams L.P) to El Paso County. This was for the design and construction of Inner Loop from US 54 to Loop 375 in El Paso (this is one of the executed projects noted above). This was approved in August 2007. In July 2005 TxDOT authorized for negotiation a pass through toll project from the Hidalgo County Mission Redevelopment Authority which would extend Anzalduas Road from the GSA Complex to the Anzalduas International Bridget and connect to the US 83 expressway. This project has not yet been approved. Val Verde County was also authorized a pass through tolling project which would construct a relief route to US 277 extending from US 90 north of Del Rio southward to US 277. This was approved in February 2007.

Pass through tolling has been an extremely successful program. Pass Through Toll Financing offers benefits to users of the transportation system and the state. Projects can be financed using private funds or combinations of public and private capital on highway and rail projects. Payments are based on the use of the facility, so developers are incentivized to conceive projects which will generate sufficient revenue to cover their investments. Pass through tolls share the risk between the contractor and/or, operator and the state.

El Paso Fast Plan - 2015

Based on the 2000 U.S. Census, El Paso is the poorest MSA with a population of over 500,000 in the United States, with a per capita family income that is \$20,000 below the national average. (US Census 2006) . Approximately one quarter of the population is below the poverty level. This, combined with the comparative lack non-automobile commuting alternatives in El

Paso has meant that El Paso political leaders have resisted placing commuter tolls on existing roadways that may burden families unable to pay. Recently, some have indicated a willingness to toll pass through traffic.

Under the "El Paso Fast Plan 2015", El Paso would create an RMA at the City of El Paso to toll at U.S 54, Anthony and Tornillo to capture revenue from approximately 63,000 cars and trucks per day. Projected toll revenue by the year 2015 could be as much as \$80 million. The "El Paso Fast Plan 2015" will require new federal legislation and FHWA approval. A non-tolled alternative for I-10 would be required. The frontage roads, other parallel routes or Loop 375 would fill that requirement. Using the projected Interstate 10 toll revenue and the Texas Mobility Fund allocation, and assuming some toll equity to be provided by the Commission, there would be enough funds to cover the cost of building the Northeast Parkway and constructing the interchange at Loop 375 and I-10 on the East side, at a total value of \$450 million.

Conclusion

A fundamental commitment to expediting the movement of legitimate goods and people, while taking into account appropriate safeguards is the best way to ensure that the border region remains a economic engine for the Texas and US economy. With Mexico as our largest trading partner, no other state has a greater stake in improved trade processes with Mexico than Texas, whose ports-of-entry handle the vast majority of NAFTA trade. The rest of the nation will also benefit from improved commerce with our Southern neighbor given that much of the commercial vehicle traffic that crosses at Texas ports-of-entry is destined for points throughout the United States and Canada.

It is clear that the cost of building and maintaining infrastructure to facilitate international trade is high, presenting a challenge to both the state and federal governments. The increase in vehicle and truck traffic resulting from Mexico's entry into the General Agreement on Tariffs and Trade (GATT) in 1986, and the ratification of NAFTA in November 1993 have imposed a tremendous strain on Border infrastructure. With these agreements came economic integration and the lowering of trade tariffs, which have resulted in increased trade with Mexico and increased congestion at Texas ports-of-entry. The increase in traffic has caused and will continue to cause road and bridge damage, meaning costly repairs as well as expansion and upgrading of roads. As a result of this congestion, pollution is increasing in Border cities, especially in El Paso where air pollution exceeds air quality standards in many categories.

Texas' location on the border with Northern Mexico and its proximity to the Mexican maquiladoras makes our state the logical crossing point for the transport of northbound commerce from Mexico and Central and South America. With the expansion of international trade agreements, commercial vehicle traffic into Texas will continue to grow. Yet, much of this commerce will pass through Texas without providing any significant economic benefit. Given their inadequate tax bases, Border communities cannot and should not have to shoulder the responsibility for or cost of international trade infrastructure alone, simply by virtue of their location. El Paso, for example, is the nation's 19th largest city, but only has the 156th largest tax base. As such, many cities in the region lack transportation infrastructure assets that would be

considered as essential in other similar sized cities. For example, El Paso still does not have an inner or outer loop or “bypass.” In the lower Rio Grande Valley, the region still does not possess an interstate highway. Because NAFTA-related trade benefits both the state and national economies, the state *and* federal governments must assume a greater fiscal responsibility and invest in adequate trade infrastructure along the Texas-Mexico Border. These improvements are vital to the continued growth and health of Texas’ economy and Border residents.

The passage of H.B. 3588 was a first step to financing the construction and renovation of the NAFTA corridors in the Border Region. However, solutions to the infrastructure deficit in the Border also will require changes in both government and business practices. NAFTA-related trade increased the need to create new commercial vehicle inspection facilities and procedures. The development of more sophisticated and efficient technology will enhance the Border’s ability to participate effectively in the post-NAFTA world and benefit businesses throughout the state that increasingly rely on trade with Mexico. The need, the will, the funding and the technology exist now to make the “one-stop” Border inspection facility a reality. By further restricting Border transportation, we will adversely impact our state’s global competitiveness.

Specifically, we must urge both our state and federal government leaders to set a strong agenda for U.S.-Mexico economic development by:

- Investing in a “one-stop” model at border ports of entry to cross commercial vehicles in 12 minutes, not six hours;
- Issuing “smart cards” to thousands of Border citizens who present no health or safety risk and who are the most frequent travelers across Border points-of-entry;
- Investing in Border rail routes to shift cargo from commercial vehicles and lines to rapid rail and just-in-time markets, and smart high priority corridors to move people and product in the most efficient mode of transport. Moreover, Border communities must integrate the input from their bi-national neighbors and pursue a regional approach by including bi-national non-voting members;
- Investing in strategic commercial Border infrastructure. We need to invest in the infrastructure to move the goods upon which our prosperity depends. We need to urge both the U.S. and Mexican governments to increase financial resources for transportation infrastructure in Border states with international bridges, Border crossings and transportation corridors, both for new projects as well as for expansions, modernization and improvements. The investments should include inspection services with increased funding for additional staff and state of the art technology to make Border crossings faster, safer, and more secure. Both countries should invest in broadband deployment along the corridors for at least 300 miles. Likewise, homeland security initiatives should be strengthened and designed to improve the operations of and flow of trade through all existing and future federal and state Border facilities. A regional approach to security should include regional GIS proposals for bi-national homeland security projects.
- Better coordination and cooperation among different national authorities at Border crossings is imperative as well as improvements in bi-national coordination. This must

include synchronizing the operating schedules of U.S. and Mexican agencies at each individual port of entry and extending hours of operation where necessary. We should aim toward a single point of inspection for both governments. Additionally, we should create state commissions in all border states; hold bi-national conferences regarding the high priority trade corridors; develop a bi-national center for Border Education Excellence; and develop bi-national, bilingual financial literacy courses to help both business owners and consumers navigate the various finance issues facing Border crossers and Border residents.

The benefit—as local resources are put to more efficient use—will be reduced air pollution and congestion and a competitive edge in attracting new industry and shippers to the Region. Ultimately, increased investment, greater government cooperation, the use of innovative technologies, and general business process improvements will benefit all U.S. and Mexican consumers.

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