Chapter 10
Trade and Border Traffic

Differences in border-crossing patterns between U.S. southwest ports of entry are primarily attributable to city size and geography, and existed long before the passage of North American Free Trade Agreement. Greater people and vehicle flows occur where a U.S. border city and its neighboring Mexican city have a larger combined populace. Although southwestern border counties would rank 13th in population if considered a 51st state, border counties would rank 22nd in U.S. state rankings on the allocation of federal highway planning and construction expenditures between 1993 and 2003. Southwestern border counties also support the nation's industrial base by geographically being located on the well established trade corridors from Mexico to the industrial Northeast, Midwest, and other regional markets. As a result, there is greater traffic along the entry points closer in distance or connected to well-established transportation nodes, such as interstate highways. In addition, within southwest border counties, especially urban centers, commuting and local traffic issues are recognized as growing but still far removed in terms of the scale of traffic impediments faced by most of the nation's urban areas.

- Traffic has reached an all time high along the southwest border.

- On any given day, about 132,000 persons, 250,000 vehicles, 523,000 vehicle passengers, 12,000 commercial trucks, and 2,000 rail containers cross from Mexico into the United States.[1]

- Seven ports of entry in particular, Laredo, El Paso, Otay Mesa, Hidalgo, Nogales, Brownsville-Cameron, and Calexico East, and their respective border counties, are at the center of cross-border trade and crossings between the United States and Mexico.

- These crossing points handle 90 percent of all southwest border trade and northbound commercial truck traffic. In addition, the region's top ports, Laredo, El Paso, and San Diego, are also the second, fifth, and sixth busiest land gateways by trade value in the nation, respectively.[2]

- Regional mobility issues are growing as congestion and traffic delays increase; however, compared to the nation, the southwestern border counties' urban areas are relatively free of the commuting issues facing other regions.

Policy Issues

Border counties provide both a location and comparative cost advantage for U.S. and Mexican industry from reduced transit and transportation costs. However, their unique location at the center of cross-border trade with the nation's second largest trading partner, Mexico, has brought about fewer economic benefits than hoped in many instances. Primarily, the consequence of an influx of cross border trade traffic has created infrastructure and social costs.[3] Bridge and highway

funding has been outpaced by the rapid growth in vehicle and commercial traffic generated by the surge in population and commerce, and has brought with them congestion at major highways and interchange arteries. Funding for transportation infrastructure for border counties is lagging when compared to other regions. If considered a 51st state, border counties would rank 22nd in U.S. state rankings on the allocation of federal highway planning and construction expenditures between 1993 and 2003 (Table 10.1), although they ranked 13th in population totals and are a strategic resource sustaining the greater United States and North American economy. The volume of freight and associated truck traffic and the excess wear on local roads is only expected to increase over time.

Changes in security measures in the wake of September 11 and delays in implementation of trucking regulations to allow Mexican-domiciled trucks to operate beyond border commercial areas have posed challenges to growth in the border economy. The post-September 11 policies to combat terrorism at the border and subsequent increased wait time at border crossings have resulted in a form of non-trade barrier to entry that is primarily absorbed by border residents. The inconvenience of uncertain and greater wait times has economic repercussions on cross-border employment and sales activity in industries that directly benefit from the flow of international trade and persons – from manufacturing to logistics to professional services to wholesale and retail trade.

Longer wait times on cargo also create problems in the just-in-time supply chain that the North American manufacturing process is dependent upon. The result is increasing transaction costs that are ultimately passed on to the consumer, whether through changes in transport modes, greater inventory costs or various other transportation, communication, or distribution delays. The congestion of vehicle and cargo trucks as they wait to cross at international bridges also results in greater air pollution for border counties.[4]

Other challenges confront the border, including inspections of Mexico-domiciled trucking seeking to operate in the U.S. interior and the US-VISIT (United States Visitor and Immigrant Status Indicator Technology) program, which is intended to improve the information collected on foreign nationals traveling to and from the United States. For southwestern border counties these challenges become political issues related to the nation's borders as policy makers and residents ask: Why is there a clear difference in treatment of our neighbors to the south than those to the north? Mexican trucks are required to pass extensive safety inspections and stringent requirements for drivers are greater than those imposed on Canadian trucking companies.[5] At the same time, Mexican nationals currently have restrictions on their laser visas limiting their stay in the United States to no more than 72 hours and 25 miles past the border (Arizona is an exception, extending its border to 75 miles northward so Mexican nationals can shop in Tucson). By contrast, Canadian nationals are allowed to visit and travel whenever they like within the United States for up to six months before they are required to obtain a visa. The difference in treatment of southwest border crossers, when combined with considerations of infrastructure and technology needs, substantially increases the difficulty of entering and exiting the United States. The result is an increase in the negative externalities borne by southwest border residents generated by the combination of supporting the volume of traffic produced by trade, and reduced cross-border spending that has fallen as a result of crossing delays.

Table 10.1
1993 to 2003 Highway Planning and Construction Expenditures Totals (in Millions of Dollars)

1	California	21,908.6	27	Louisiana	3,920.6
2	Texas	18,449.6	28	Arkansas	3,834.2
3	Pennsylvania	12,496.6	29	Colorado	3,809.2
4	New York	12,220.5	30	West Virginia	3,773.9
5	Florida	11,627.2	31	Oklahoma	3,653.5
6	Ohio	8,711.6	32	Mississippi	3,324.2
7	Illinois	8,638.2	33	Oregon	3,182.1
8	Michigan	7,925.2	34	Alaska	3,146.1
9	Georgia	7,808.6	35	Iowa	3,144.2
10	New Jersey	7,391.4	36	Kansas	2,855.4
11	Massachusetts	7,199.7		**Border Counties w/out San Diego**	**2,805.0**
12	North Carolina	7,029.7	37	New Mexico	2,646.4
13	Virginia	6,864.7	38	Montana	2,437.1
14	Missouri	6,060.1	39	Utah	2,173.1
15	Indiana	6,043.4	40	Nebraska	2,065.6
16	Maryland	5,993.2	41	Idaho	1,993.6
17	Alabama	5,596.7	42	North Dakota	1,947.1
18	Tennessee	5,322.7	43	South Dakota	1,888.3
19	Wisconsin	5,176.2	44	Hawaii	1,765.2
20	Washington	5,089.0	45	Wyoming	1,744.3
21	Kentucky	4,609.4	46	Nevada	1,642.1
22	**Border Counties**	**4,272.0**	47	Rhode Island	1,624.8
23	Connecticut	4,127.1	48	Maine	1,466.8
24	South Carolina	4,124.0	49	New Hampshire	1,335.8
25	Arizona	3,960.7	50	Delaware	1,101.3
26	Minnesota	3,934.2	51	Vermont	1,100.6

Source: Consolidated Federal Funds Report, U.S. Census Bureau.

Exports and imports between the United States and Mexico, and the consequent demand for trucking cargo, have grown tremendously in the southwest border region, capturing a greater share of the nation's total trade and commercial truck traffic. For example, trade through the southwest border accounted for 10.1 percent of total U.S. trade in 2004, up from 7.4 percent in 1994 (Table 10.2; see detailed data in Appendix A). Similarly, northbound or incoming cargo trucks through the southwest border counties comprised 39.5 percent of all trucks entering the United States in 2004, up from 35.8 percent in 1995 as shown in Table 10.3. While the demand for truck hauls is largely determined by maquiladora production and final goods exchange, traffic also has increased as a result of the large number of empty trailer crossings to and from Mexico in support of just-in-time delivery of components from U.S. warehouses to maquiladoras, a.k.a., the "drayage system." Texas' land ports with Mexico are the busiest in the nation, while California's rank 4th behind only Michigan and New York.

Table 10.2
1994 and 2004 Summary of Total Trade, Imports, and Exports by Southwest Customs District and Ports
(in Millions of Dollars)

	Total Trade			Imports			Exports			Exports as % of Total Trade	
Custom Districts & Ports	1994	2004	% 94-04 change	1994	2004	% 94-04 change	1994	2004	% 94-04 change	1994	2004
Total U.S. Southwest Border	87,430.4	231,920.5	165.3%	42,012.8	136,628.8	225.2%	45,417.6	95,291.8	109.8%	51.9%	41.1%
Total U.S.	1,175,882.0	2,288,479.0	94.6%	663,256.0	1,469,704.0	121.6%	512,626.0	818,775.0	59.7%	43.6%	35.8%
Southwest Border % of Total U.S.	7.4%	10.1%		6.3%	9.3%		8.9%	11.6%			

Source: Texas Center for Border Economic and Enterprise Development, Texas A and M International derived from U.S. Census.

The terrorist attacks of September 11 and the security measures that followed have had a substantial impact on border counties. The most observable, yet difficult to quantify inconvenience to border residents, is the increased wait times to cross as a result of the heightened border security.[6] Border crossings and wait times that were already intolerable before September 11 have been significantly altered as the focus has shifted from almost exclusively stopping drugs, contraband, and undocumented immigrants to securing the nation's borders, often without differentiating between what constitutes a high risk or a low risk. The effects of September 11 are illustrated at the top two ports for pedestrian and vehicle crossings, El Paso (in El Paso County) and San Ysidro (in San Diego County). In El Paso, immediately following September 11, vehicle waits of 2 to 3 hours to cross over the international bridges quickly became the new norm. These times have diminished in the period since September 11, but to levels much higher than pre-September 11 wait times. In response, people often gave up driving, preferring to wait less by walking across the border, thereby increasing pedestrian crossings. In

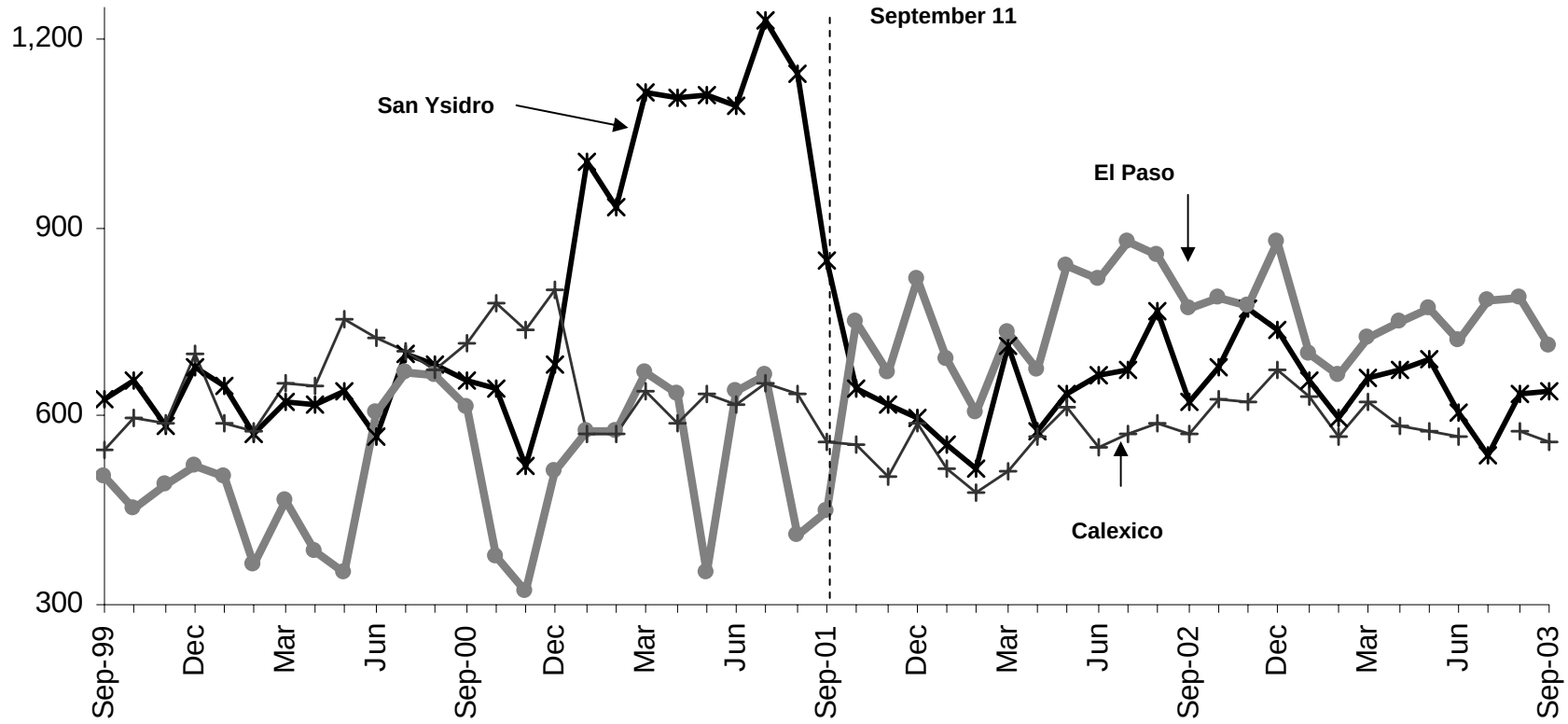
turn, pedestrian crossing times rose as a result of the volume. Overall, a 109 percent rise in pedestrian crossings was recorded by U.S. Customs between August 2001 and August 2002. In most cases, persons continue to walk across more and drive across less.[7] As a result, changes in consumer patterns are altered by fewer purchases if they have to be carried back into Mexico or by only visiting the immediate border area versus trips to malls or other interior locations. In contrast to El Paso, San Ysidro pedestrian crossings contracted by one-third between August 2001 and August 2002 and vehicle crossings rose to levels greater than pre-September 11. The change in human traffic patterns resulting from September 11 at El Paso and San Ysidro were so dramatic that these ports literally changed rankings within a period of weeks. Immediately after September 11, San Ysidro surpassed El Paso as the leader in vehicle crossings and El Paso surpassed San Ysidro as the leading port in pedestrian traffic (See Figures 10.1 and 10.2).

Table 10.3
2004 and 1995 Border Crossings Rankings by State Land Ports

	Cargo Trucks			Vehicles			Pedestrians		
Rank		**2004**	**1995**		**2004**	**1995**		**2004**	**1995**
1	**TX**	3,036,018	1,894,971	**TX**	45,805,476	40,878,097	**TX**	20,440,329	15,443,565
2	**MI**	2,715,757	1,880,971	**CA**	34,553,627	12,224,347	**CA**	18,197,094	9,662,965
3	**NY**	1,987,117	1,504,957	**AZ**	10,195,882	8,336,435	**AZ**	9,186,005	7,621,087
4	**CA**	1,110,758	666,866	**NY**	9,334,930	10,693,704	**NY**	549,740	361,408
5	**WA**	674,772	558,852	**MI**	8,978,154	11,427,389	**NM**	260,807	108,355
6	**ME**	518,186	363,192	**WA**	4,951,100	8,157,961	**ME**	115,011	119,625
7	**ND**	340,862	257,926	**ME**	3,540,077	4,435,793	**WA**	102,652	92,902
8	**VT**	334,051	240,993	**VT**	1,431,287	1,639,640	**MN**	29,769	39,083
9	**AZ**	323,196	296,342	**MN**	1,051,563	1,104,416	**VT**	12,804	22,981
10	**MT**	167,678	132,845	**ND**	606,293	754,327	**ND**	5,298	10,483
11	**MN**	103,065	135,785	**NM**	578,904	346,192	**MT**	4,893	12,710
12	**ID**	49,198	47,387	**MT**	462,237	560,080	**AK**	4,066	778
13	**NM**	33,716	2,446	**ID**	162,802	246,991	**ID**	1,784	3,370
14	**AK**	11,134	12,102	**AK**	117,142	125,236	**MI**		34,623
	Southwest Border	4,503,688	2,860,625	**Southwest Border**	91,133,889	61,785,071	**Southwest Border**	48,084,235	32,835,972
	U.S.	11,405,508	7,995,635	**U.S.**	121,769,474	100,930,608	**U.S.**	48,910,252	33,533,935
	Southwest Border % of U.S.	39.5%	35.8%	**Southwest Border % of U.S.**	74.8%	61.2%	**Southwest Border % of U.S.**	98.3%	97.9%

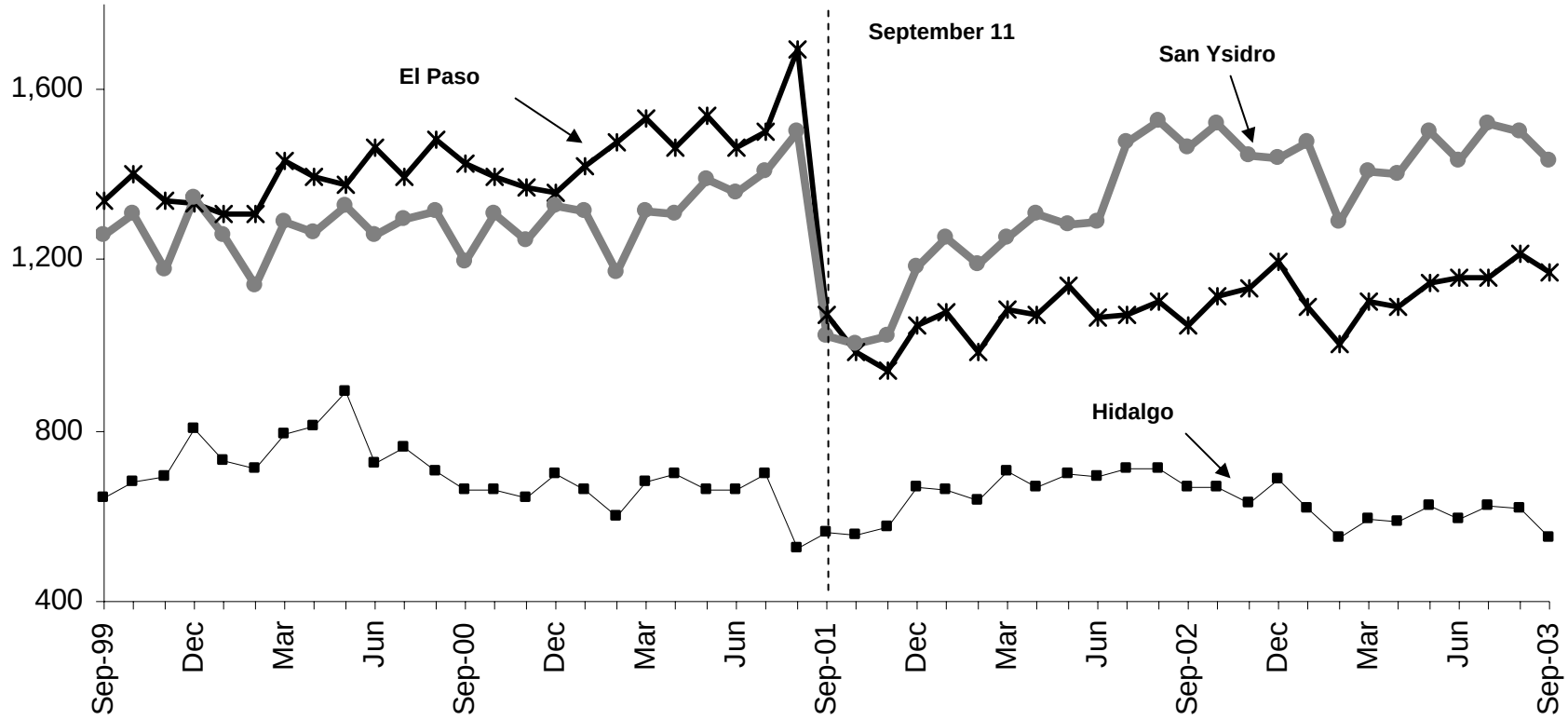
Source: U.S. Bureau of Transportation Statistics (BTS) from U.S. Customs Service.

Figure 10.1
1999 (September) to 2003 (September) Pedestrian Crossings at Top Ports (in Thousands).



Source: Border Trade Statistics, U.S. Customs.

Figure 10.2
1999 (September) to 2003 (September) Vehicle Crossings at Top Ports (in Thousands)



Source: Border Trade Statistics, U.S. Customs.

Daily Commuter Traffic and Congestion

The interdependence of the border creates traffic flows that originate from two forces, namely daily commuting within border counties and cross border traffic related to both commuting and trade. Traffic and mobility are impacted by capacity that is strained as southwest border counties grow and must compete for transportation funding; efficiency that is often compromised by border security demands; and, development patterns that force traffic through sometimes already congested corridors.[8] County-by-county solutions are the outcome of changes in traffic patterns and a single border wide solution is neither desired nor expected. For residents of the border's rural counties, concerns about congestion and mobility are minimal. However, in individual border counties and their communities, concerns are growing as traffic demands result in significant delays for a variety of reasons ranging from lack of alternative routes when accidents occur to growth that has resulted in demand exceeding the road system's capabilities. In a series of studies conducted by the Texas Transportation Institute, southwest border counties are recognized as having potentially serious mobility limitations. In this regard, within the southwest border region, the "2005 Urban Mobility Report "demonstrates that:

- San Diego is 12th nationwide in annual hours of delays by travelers, 52 hours per year, exceeding the national average for 85 urban areas by 5 hours.

- El Paso ranks 54th nationally with Laredo and Brownsville falling at 79th and 85th respectively, in terms of annual hours of delay.

- These delays equate to 81,756,000 hours of time, 13th nationally for San Diego, resulting in an additional 59,000,000 gallons of fuel consumed, combined to a congestion cost calculated at $1.4 billion per year.[9]

- Delays in Pima County, the greater Tucson urban area ranks 44th nationally, for El Paso 58th, and Laredo and Brownsville 82nd and 85th, respectively.

- While data is not kept by state, travel times, primarily associated with commuting, in all border areas are inching upwards annually; however, only in San Diego do the delays and costs exceed the national average and local traffic problems are not nearly at the levels of the nation's major urban areas where delays are 61 hours per year.

Almost all of the nation's border pedestrian crossings (98.3 percent) and three-fourths (74.8 percent) of vehicle crossings occur at the Mexican border (See Figures 10.1 and 10.2.). Much of the high volume of traffic through southwest ports results from the close social, familial, and work relationships among border residents. During the months of November and December, these relations are even more apparent as crossings rise as a result of increased holiday purchases by Mexican nationals in U.S. border cities. Increases in U.S.-Mexico border traffic have been significant over the past decade (See Appendix 10.2 and 10.3). Incoming pedestrians reached 48.1 million in 2004, an increase of 4.2 million from 1997 (9.5 percent) while vehicle crossings reached 91.3 million, a rise of 11.3 million since 1997 (14.1 percent).[10] The majority of the growth in pedestrian traffic came from the El Paso port while San Ysidro witnessed the greatest growth in vehicle traffic. As previously mentioned, the September 11 terrorist attacks on the nation and subsequent policies have had a tremendous impact on cross-border norms and are

indicators of what future events might do to cross-border traffic.[11]

- Over-the-year between August 2001and 2002 persons walking from Mexico into the United States fell at San Ysidro by 377,057 and at Calexico by 47,900, and rose at El Paso by 446,638 (in Nogales they rose by 101,176).

- With the exception of Hidalgo (TX), vehicle crossings fell at all U.S. ports of entry between August and September 2001. The over-the-month drops varied greatly, from 31,260 at Calexico East to 621,865 at El Paso. Other than El Paso, vehicles fell by close to or more than 100,000 at the southwest ports of San Ysidro, Brownsville, Laredo, Calexico, Nogales, and Otay Mesa.

Trade and Transportation

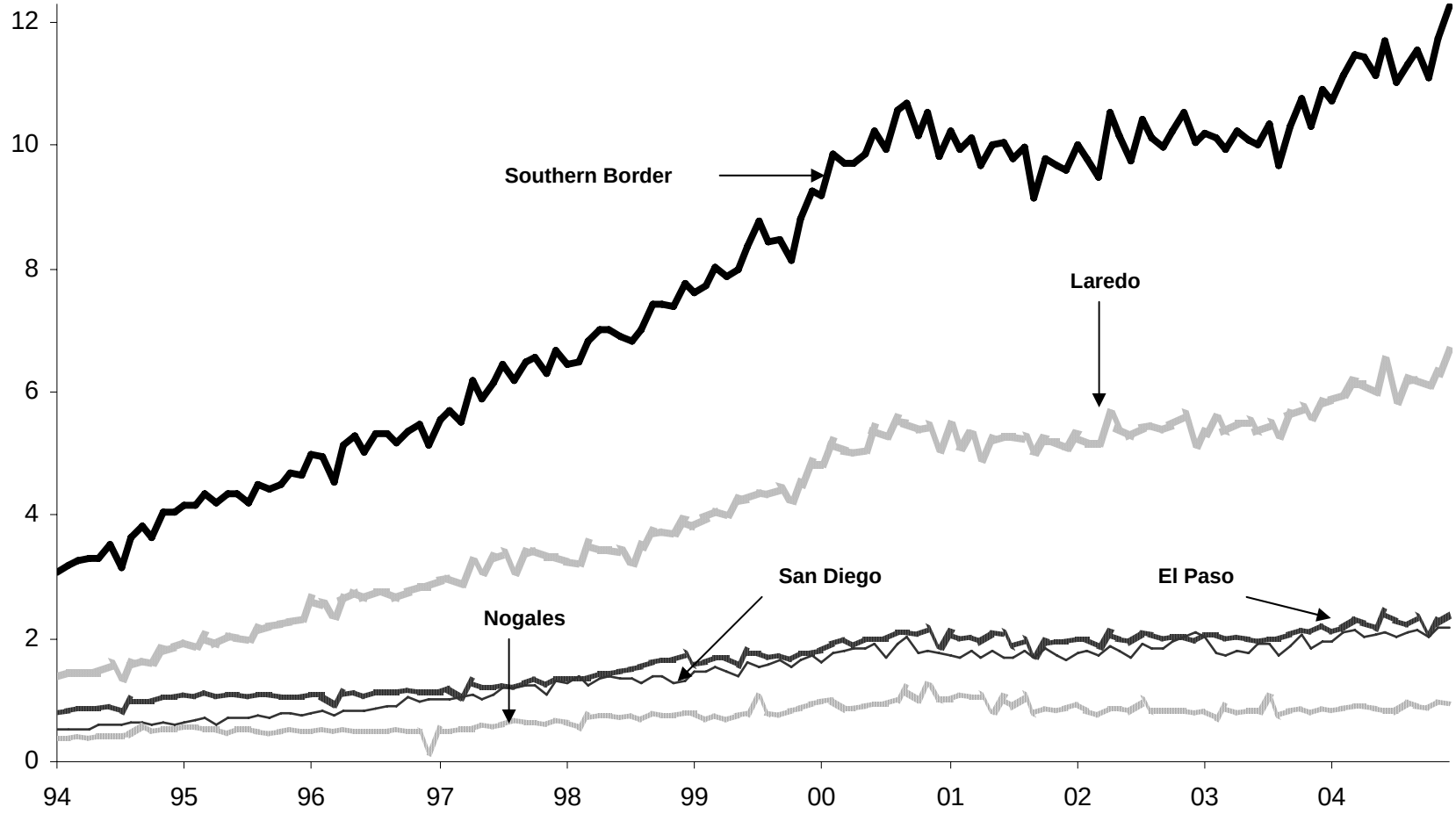
The U.S.-Mexico border is comprised of four U.S. Customs Districts (Laredo, El Paso, Nogales, and San Diego),[12] each with multiple ports of entry that connect cross-border cities via international land bridges and rail connections. Smaller border ports function as distribution channels for North American trade while larger southwest ports function as both distribution and production networks for both U.S. and Mexican manufacturing industries.

In 2004, total trade through the U.S. southwest border was $231.9 billion (the sum of imports of $136.6 billion and exports of $95.3 billion), an increase of $144.5 billion (165.3%) from 1994 (See Appendix 10.4). Trade through the southwest border accounted for 10.1 percent of total U.S. trade in 2004, up from 7.4 percent in 1994. The Laredo District dominates southwest border trade, followed by the El Paso, San Diego, and Nogales Districts (Figures 10.3 and 10.4). Imports have risen sharply in the border region, driven primarily by the almost three-fold increase through the Laredo District. Imports through the San Diego District have increased substantially in percentage terms, but in actual dollar amount, the rise is just one third that of Laredo's. Likewise, similar export growth has occurred in the El Paso District.

The predominant mode of transportation for trade between the United States and Mexico in both value and volume is surface transport via commercial cargo trucks, followed by rail and air modes.[13] The demand for truck hauls is largely determined by maquiladora export production in Mexico at ports, such as El Paso, and by final goods production and trade between Mexico and the United States at ports such as Laredo, which serves as the primary corridor that connects Mexico's domestic industrial centers of Monterrey, Mexico City and Guadalajara with the U.S. market, and vice versa. At ports, such as Otay Mesa and Calexico East that connect Tijuana to San Diego and Mexicali to Imperial County, truck hauls are determined by both maquiladora production and final goods exchange. In Nogales, agricultural trade dominates distribution.

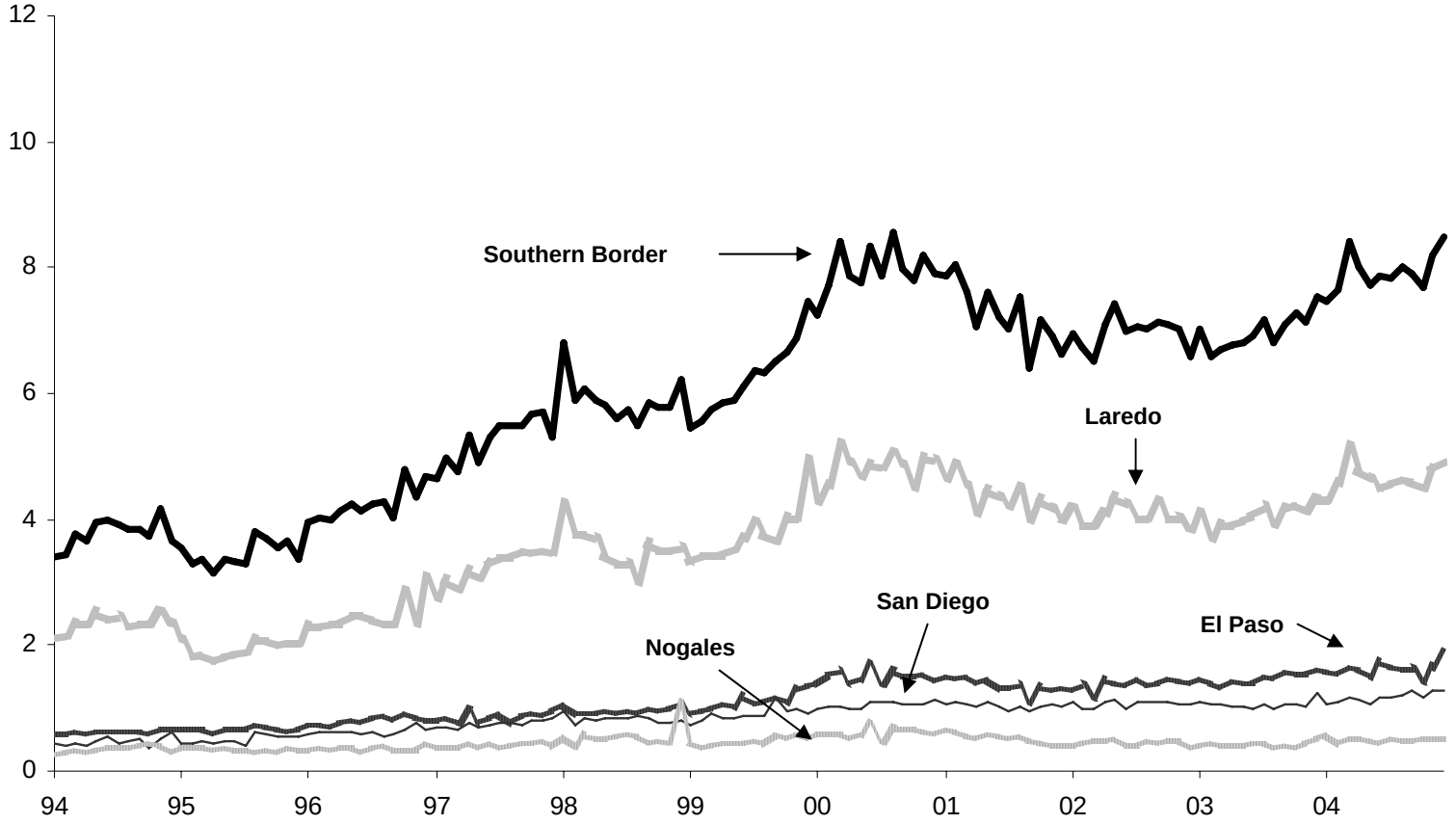
Northbound cargo trucks crossing through southwestern border ports increased 163 percent between 1994 and 2004, from 2.76 to 4.5 million crossings based on U.S. Customs documentation. Not all southwest ports of entry handle incoming (northbound) commercial trucks and the majority of truck crossings are concentrated through key logistical distribution nodes. The three primary ports include Laredo, El Paso, and Otay Mesa. The Hidalgo and Brownsville ports in the Lower Rio Grande region are also critical distribution nodes, while California's port at Calexico East and Arizona's port at Nogales record substantial commercial truck traffic and

Figure 10.3
1994-2004 Imports by Southwest Districts (in Billions of Dollars)



Source: Texas Center for Border Economic and Enterprise Development (TCBEED) from the Foreign Trade Statistics, U.S. Census Bureau.

Figure 10.4
1994-2004 Exports by Southwest Districts (in Billions of Dollars)



Source: Texas Center for Border Economic and Enterprise Development (TCBEED) from the Foreign Trade Statistics, U.S. Census Bureau.

international trade. Monthly trade and truck traffic flows through Nogales, compared to other ports, are highly variable as they follow seasonal movements of agriculture. The top three ports in the southwest are also top ports across the nation increasing the importance of the region's trade activities within the national trade arena (Figures 10.5 and 10.6 and Appendix 10.4):

- The port of Laredo is the nation's second busiest land gateway by trade value (after the port of Detroit) and is the 6th leading gateway overall (all modes – land, air, and sea). It handles the highest volume of commercial trucks and trade value on the U.S.-Mexico border, connecting directly to both nations' industrial centers.

- In 2004, more than 1.39 million trucks crossed northbound through the Laredo port, almost one-third of the total incoming trucks crossing the U.S.-Mexico land ports.

- In 2004, more than $91.3 billion worth of goods passed through Laredo, the majority imports, accounting for almost two-fifths of the southwest border's total trade.

- Mexico's products (non-maquila goods) imported into the U.S. are primarily directed through Laredo's World Trade Bridge, the most utilized truck crossing on the U.S.-Mexico border.

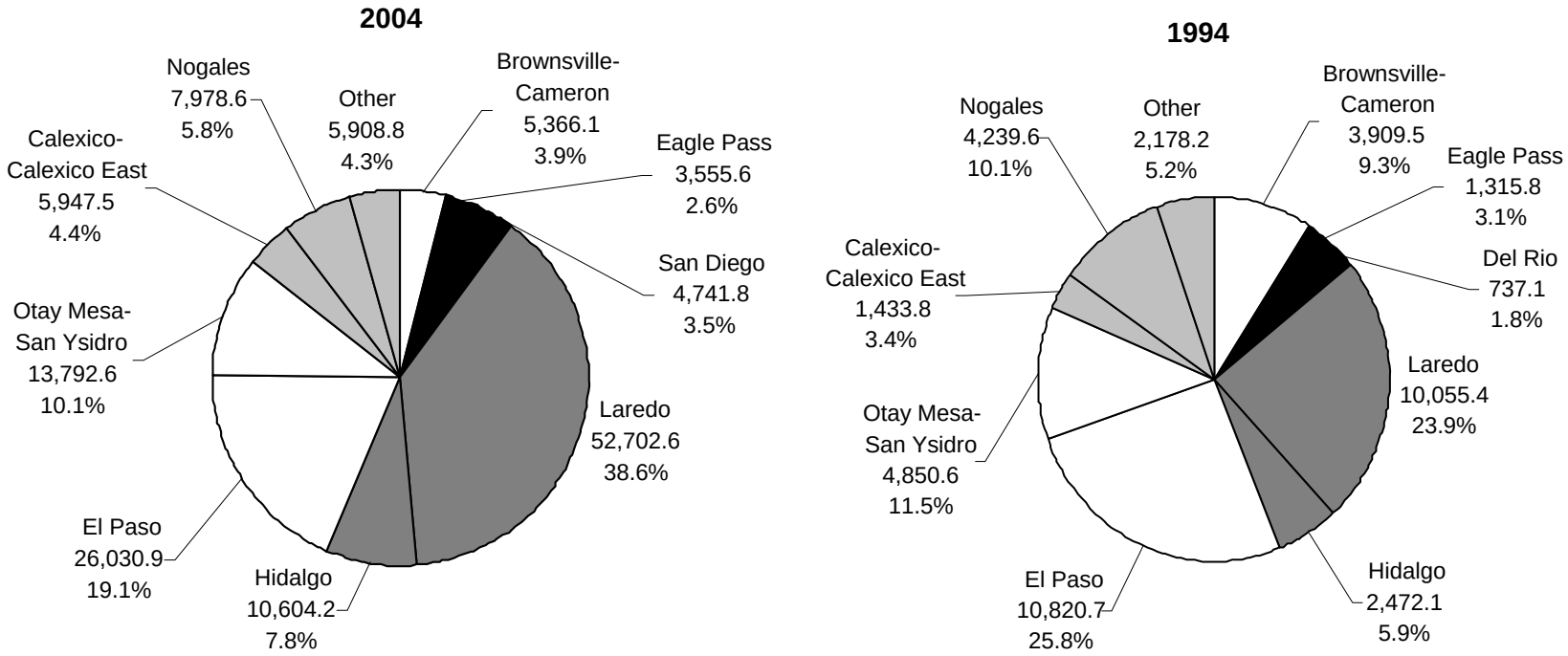
- The port of El Paso is the nation's 5th busiest land gateway by trade value and the 14th overall. It plays a key role in the drayage and logistics component of the just-in-time system between the United States and Mexico's maquiladoras.

- The El Paso port ranked 3rd in northbound truck crossings in 2004 (719.5 thousand) and its international bridges handle the second largest amount of border county trade, roughly $44.7 billion in 2004. Most trade and truck traffic that pass through El Paso are directly related to the maquiladora industry.

- The port of Otay Mesa is the nation's 6th busiest land gateway by trade value and 25th overall gateway (all modes).

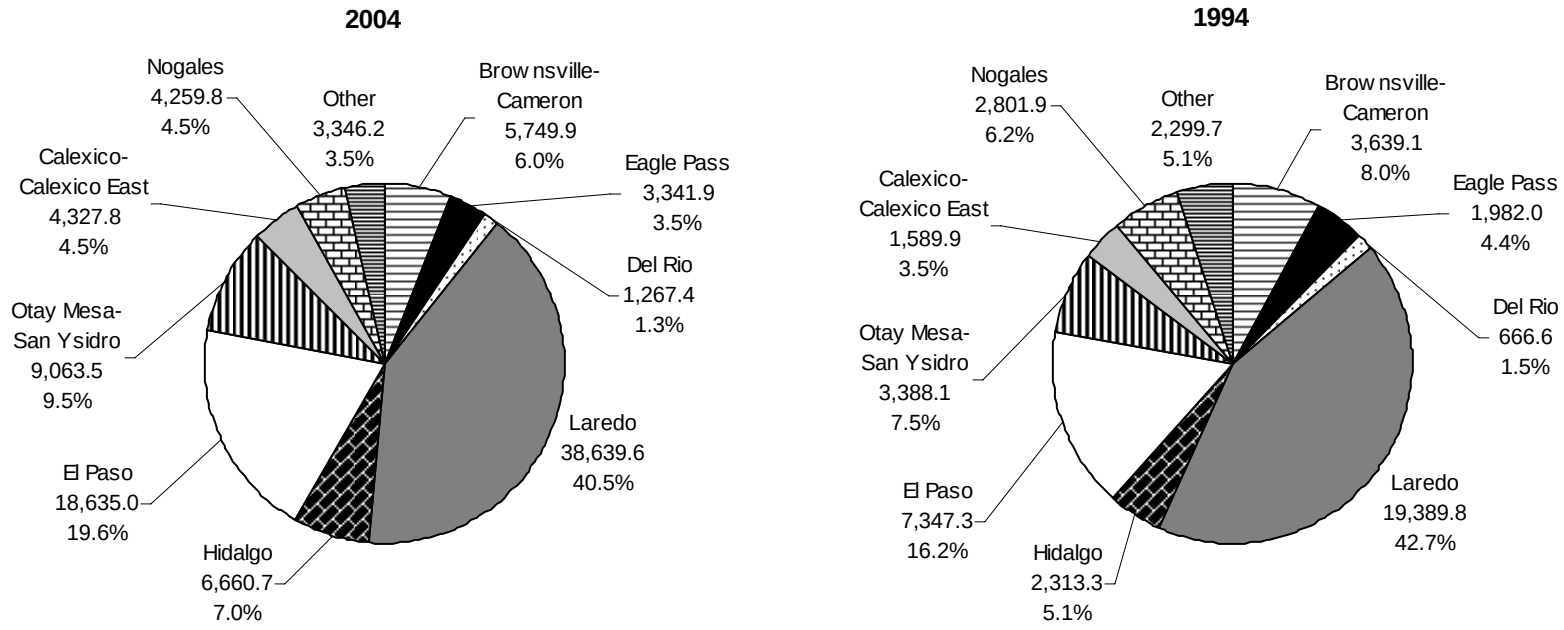
- With 726,200,000 northbound truck crossings in 2004, the Otay Mesa port of entry[14] was the 2nd largest commercial crossing and handles the 3rd highest trade value (almost one-tenth) among all U.S.-Mexico land crossings, roughly $22.9 billion. Nearly all trade through Otay Mesa originates or terminates in California.

Figure 10.5
2004 and 1994 Imports by Border County Ports of Entry



Source: Texas Center for Border Economic and Enterprise Development (TCBEED) from the Foreign Trade Statistics, U.S. Census Bureau.

Figure 10.6
2004 and 1994 Exports by Border County Ports of Entry



Source: Texas Center for Border Economic and Enterprise Development (TCBEED) from the Foreign Trade Statistics, U.S. Census Bureau.

Appendix 10.1
1994 and 2004 Total Trade Imports and Exports by Southwest Customs Districts and Ports (in Millions of Dollars)

		Total Trade			Imports			Exports			Exports as % of Total Trade	
	PORT NAME	1994	2004	94-04 % Change	1994	2004	94-04 % Change	1994	2004	94-04 % Change	1994	2004
	Brownsville-Cameron	7,548.6	11,116.0	47.3%	3,909.5	5,366.1	37.3%	3,639.1	5,749.9	58.0%	48.2%	51.7%
	Del Rio	1,403.7	2,834.5	101.9%	737.1	1,567.2	112.6%	666.6	1,267.4	90.1%	47.5%	44.7%
	Eagle Pass	3,297.8	6,897.5	109.2%	1,315.8	3,555.6	170.2%	1,982.0	3,341.9	68.6%	60.1%	48.5%
	Laredo	29,445.2	91,342.2	210.2%	10,055.4	52,702.6	424.1%	19,389.8	38,639.6	99.3%	65.9%	42.3%
	Hidalgo	4,785.3	17,264.8	260.8%	2,472.1	10,604.2	329.0%	2,313.3	6,660.7	187.9%	48.3%	38.6%
	Rio Grande City	155.9	221.1	41.9%	51.9	129.3	149.3%	104.0	91.8	-11.7%	66.7%	41.5%
	Progreso	219.1	142.8	-34.8%	100.8	8.8	-91.3%	118.3	134.0	13.2%	54.0%	93.8%
	Roma	91.2	80.0	-12.3%	19.3	11.5	-40.6%	71.9	68.6	-4.7%	78.9%	85.7%
	Edinburg Airport	0.0	0.0	--	0.0	0.0	--	0.0	0.0	--	--	--
Laredo District Total		46,946.8	129,898.9	176.7%	18,661.8	73,945.1	296.2%	28,285.1	55,953.7	97.8%	60.2%	43.1%
	El Paso	18,168.0	44,666.0	145.8%	10,820.7	26,030.9	140.6%	7,347.3	18,635.0	153.6%	40.4%	41.7%
	Presidio	101.1	409.6	305.2%	56.6	187.0	230.5%	44.5	222.5	400.3%	44.0%	54.3%
	Fabens	0.4	32.4	7860.3%	0.2	0.0	-100.0%	0.2	32.4	17676.9%	44.8%	100.0%
	Columbus	23.5	69.2	194.3%	15.9	36.4	129.4%	7.6	32.8	329.3%	32.5%	47.4%
	Albuquerque	32.8	11.1	-66.1%	32.5	9.1	-72.2%	0.2	2.1	774.4%	0.7%	18.5%
	Santa Teresa	91.5	1,185.4	1195.3%	91.5	769.6	741.0%	0.0	415.8	--	0.0%	35.1%
	Santa Teresa Airport	0.4	0.1	-86.9%	0.2	0.0	-100.0%	0.2	0.1	-66.9%	39.5%	100.0%
El Paso District Total		18,417.7	46,373.8	151.8%	11,017.6	27,033.1	145.4%	7,400.0	19,340.7	161.4%	40.2%	41.7%
	San Diego	779.1	4,931.0	532.9%	461.6	4,741.8	927.2%	317.5	189.2	-40.4%	40.7%	3.8%
	Andrade	3.8	2.9	-22.5%	0.1	0.1	-54.2%	3.7	2.9	-21.5%	97.1%	98.3%
	Calexico	3,023.7	9.6	-99.7%	1,433.8	0.0	-100.0%	1,589.9	9.6	-99.4%	52.6%	100.0%
	San Ysidro	7,869.5	38.1	-99.5%	4,850.3	0.0	-100.0%	3,019.2	38.1	-98.7%	38.4%	99.9%
	Tecate	530.9	1,009.1	90.1%	244.5	543.2	122.2%	286.4	465.9	62.7%	54.0%	46.2%
	Otay Mesa	369.2	22,818.0	6080.7%	0.3	13,792.6	4613342.2%	368.9	9,025.5	2346.7%	99.9%	39.6%
	Calexico-East	0.0	10,265.7	--	0.0	5,947.5	--	0.0	4,318.1	--	--	42.1%
San Diego District Total		12,576.2	39,074.6	210.7%	6,990.6	25,025.3	258.0%	5,585.5	14,049.3	151.5%	44.4%	36.0%
	Douglas	665.3	797.8	19.9%	362.3	530.7	46.5%	302.9	267.1	-11.8%	45.5%	33.5%
	Lukeville	13.4	9.3	-30.0%	1.6	0.1	-93.9%	11.7	9.3	-21.2%	88.0%	99.0%
	Naco	67.7	86.1	27.2%	24.8	27.7	11.9%	43.0	58.4	36.0%	63.4%	67.8%
	Nogales	7,041.4	12,238.3	73.8%	4,239.6	7,978.6	88.2%	2,801.9	4,259.8	52.0%	39.8%	34.8%
	Phoenix	617.5	1,286.9	108.4%	71.4	788.7	1004.8%	546.1	498.3	-8.8%	88.4%	38.7%
	Sasabe	0.6	20.7	3203.3%	0.2	0.0	-90.3%	0.4	20.7	5098.9%	63.5%	99.9%
	San Luis	495.9	964.2	94.4%	346.2	672.2	94.2%	149.7	292.1	95.0%	30.2%	30.3%
	Tucson	587.9	1,169.9	99.0%	296.7	627.4	111.5%	291.2	542.5	86.3%	49.5%	46.4%
Nogales District Total		9,489.7	16,573.3	74.6%	5,342.7	10,625.3	98.9%	4,147.0	5,948.0	43.4%	43.7%	35.9%
		Total Trade			Imports			Exports			Exports as % of Total Trade	
Total U.S. Southwest Border		87,430.4	231,920.5	165.3%	42,012.8	136,628.8	225.2%	45,417.6	95,291.8	109.8%	51.9%	41.1%
Total U.S.		1,175,882.0	2,288,479.0	94.6%	663,256.0	1,469,704.0	121.6%	512,626.0	818,775.0	59.7%	43.6%	35.8%
Southwest Border % of Total U.S.		7.4%	10.1%		6.3%	9.3%		8.9%	11.6%			

Source: Texas Center for Border Economic and Enterprise Development, Texas A and M International derived from U.S. Census.

Appendix 10.2
1994-2004 Incoming Pedestrian Crossings Along the U.S.-Mexico Border

U.S. PORT NAME	2004 Rank	2004	2003	2002	2001	2000	1999	1998	1997	1996	1995	1994
San Ysidro, CA	**1**	9,457,600	8,302,110	7,903,483	11,435,946	7,542,450	7,558,174	6,909,382	7,046,923	U	U	U
El Paso, TX	**2**	8,441,671	8,899,168	9,301,395	7,201,100	5,825,155	5,666,477	5,169,966	4,542,646	4,405,140	4,403,325	5,672,036
Nogales, AZ	**3**	6,131,407	5,583,533	5,911,866	4,874,738	4,677,819	4,806,076	4,796,884	4,643,538	4,417,030	4,698,049	4,948,152
Calexico, CA	**4**	4,847,096	6,230,123	6,894,820	7,119,785	8,352,324	8,099,253	8,492,078	8,167,540	7,373,815	7,100,203	6,469,371
Laredo, TX	**5**	4,507,105	4,577,725	4,648,046	5,060,947	5,492,769	6,674,293	5,093,851	5,427,815	3,713,397	3,112,505	4,257,086
Brownsville, TX	**6**	2,905,826	2,920,355	3,204,848	3,176,131	3,017,533	3,465,915	3,604,032	3,726,740	3,801,203	3,308,537	3,769,738
San Luis, AZ	**7**	2,316,812	2,625,907	2,968,278	3,170,259	2,824,562	2,721,603	2,016,280	2,220,799	2,385,462	2,212,747	2,137,883
Hidalgo, TX	**8**	2,011,500	2,138,232	1,958,914	2,325,812	2,575,622	2,559,617	2,377,143	2,429,241	2,603,443	2,541,556	3,057,580
Andrade, CA	**9**	1,946,347	1,747,369	1,703,862	1,779,392	1,762,700	1,634,155	1,457,009	1,360,393	1,325,445	1,161,868	1,076,367
Otay Mesa, CA	**10**	1,519,627	1,467,171	1,684,117	1,002,971	648,756	684,047	619,158	621,517	583,206	1,145,522	361,159
Progreso, TX	**11**	1,409,693	1,275,881	1,288,506	1,278,671	1,193,590	1,368,048	1,207,768	1,164,483	1,095,911	900,074	866,836
Eagle Pass, TX	**12**	701,241	698,602	691,904	864,105	920,114	761,221	661,922	529,897	458,729	395,933	398,354
Douglas, AZ	**13**	540,623	776,258	648,989	728,585	682,872	704,973	641,181	599,082	547,742	567,030	554,333
Tecate, CA	**14**	423,357	444,924	439,520	359,165	288,156	287,496	251,228	297,237	265,631	255,372	337,364
Roma, TX	**15**	255,238	242,394	245,377	311,458	494,717	479,762	469,341	443,949	452,752	426,365	489,022
Columbus, NM	**16**	246,880	242,448	250,968	182,025	187,709	195,531	138,881	119,418	144,354	108,355	102,216
Lukeville, AZ	**17**	103,094	89,694	78,336	126,268	109,800	78,611	73,308	76,274	72,085	71,790	68,228
Del Rio, TX	**19**	99,712	132,216	167,153	258,102	265,252	260,486	264,456	262,717	270,577	272,086	226,397
Naco, AZ	**18**	91,694	77,518	72,628	92,554	92,617	64,698	69,353	71,839	67,257	67,434	66,088
Rio Grande City, TX	**20**	69,176	121,149	129,752	88,089	86,225	86,226	76,593	85,919	90,423	30,949	30,126
Presidio, TX	**21**	20,101	25,187	34,065	24,240	16,019	16,719	21,136	11,890	9,075	11,522	16,300
Fabens, TX	**22**	19,066	25,311	33,723	32,208	23,813	17,052	14,524	14,737	24,691	40,713	38,703
Santa Teresa, NM	**23**	13,927	16,864	13,197	3,789	3,642	4,113	3,169	1,157	298	NA	NA
Calexico East, CA	**24**	3,067	1,586	2,398	2,538	2,293	15,100	28,649	42,463	U	U	U
Sasabe, AZ	**25**	2,375	2,048	2,136	2,443	3,133	3,588	4,262	3,097	1,698	4,037	4,405
U.S. - Mexico Border Total		**48,084,235**	**48,663,773**	**50,278,281**	**51,501,321**	**47,089,642**	**48,213,234**	**44,461,554**	**43,911,311**	**34,109,364**	**32,835,972**	**34,947,744**

Source: Border Trade Statistics, U.S. Customs. NA or U – Data not applicable are unavailable.

Appendix 10.3

1994-2004 Incoming Vehicle Crossings Along the U.S.-Mexico Border

U.S. PORT NAME	2004 Rank	2004	2003	2002	2001	2000	1999	1998	1997	1996	1995	1994
San Ysidro, CA	1	17,621,030	17,408,481	16,441,766	15,001,616	14,106,704	15,269,561	14,474,686	13,213,420	U	U	U
El Paso, TX	2	14,817,206	13,699,206	13,095,153	16,135,835	16,697,439	16,001,926	15,212,062	15,089,692	15,095,553	16,004,344	15,887,942
Brownsville, TX	3	7,211,401	7,219,865	7,896,809	7,548,394	7,877,255	7,579,231	6,512,784	6,161,471	6,073,623	5,768,397	6,047,628
Hidalgo, TX	4	7,183,674	7,169,629	8,136,100	7,549,907	8,779,691	8,319,581	7,126,677	6,604,555	6,098,540	5,630,431	5,807,589
Laredo, TX	5	6,725,119	6,777,423	6,921,709	7,454,330	7,151,127	6,894,982	7,524,347	7,409,721	6,792,925	5,782,659	6,941,040
Otay Mesa, CA	6	6,193,568	4,912,899	4,140,610	3,956,842	4,845,348	4,480,026	4,326,786	3,800,936	3,377,407	3,549,378	3,745,144
Calexico, CA	7	5,641,994	5,261,985	6,174,218	6,374,425	6,744,970	6,836,372	6,957,454	6,469,607	6,138,688	7,081,042	8,440,912
Nogales, AZ	8	3,782,556	3,836,372	3,978,640	4,590,933	4,681,567	4,186,962	3,698,273	3,587,985	3,316,799	3,368,337	3,829,677
San Luis, AZ	9	3,755,829	3,189,867	3,306,378	2,596,180	2,597,835	2,687,387	2,641,879	2,740,807	2,597,734	2,592,335	3,033,624
Eagle Pass, TX	10	3,580,066	3,573,651	3,743,893	3,402,659	3,357,677	3,029,861	2,778,819	2,637,610	2,630,508	2,478,366	2,690,317
Calexico East, CA	11	3,159,892	3,102,398	3,504,005	3,080,540	2,550,625	2,203,291	1,785,602	1,781,749	U	U	U
Douglas, AZ	12	2,087,450	2,091,251	2,321,534	2,103,271	2,252,216	2,150,092	2,028,032	1,991,904	1,915,119	1,827,277	2,173,220
Del Rio, TX	13	1,881,858	1,909,639	2,094,729	1,956,047	1,968,712	2,054,057	1,900,700	1,853,091	1,770,666	1,604,880	1,611,828
Roma, TX	14	1,223,819	1,263,153	1,391,166	1,338,228	1,332,536	1,328,519	1,224,540	1,190,213	1,175,094	1,095,325	1,156,674
Tecate, CA	15	1,183,222	1,284,525	1,205,430	1,143,827	1,163,471	1,214,949	1,000,699	1,041,013	1,043,022	1,059,538	1,064,093
Progreso, TX	16	1,120,869	1,151,174	1,214,011	1,134,782	1,086,496	1,151,050	1,064,961	994,252	1,023,263	922,826	929,536
Andrade, CA	17	753,921	704,294	723,530	603,027	606,863	612,147	579,552	553,874	557,179	534,389	522,953
Presidio, TX	19	718,128	701,921	739,763	760,809	723,560	735,297	653,818	613,455	578,171	492,835	545,009
Rio Grande City, TX	18	692,329	706,230	740,449	675,856	687,550	714,130	667,071	563,160	571,819	500,664	537,514
Fabens, TX	20	651,007	658,831	735,983	733,819	705,623	699,004	582,008	652,739	627,481	597,370	604,109
Lukeville, AZ	21	398,469	413,042	442,094	436,523	400,493	501,345	394,144	381,918	265,471	266,366	248,919
Columbus, NM	22	351,128	356,568	387,487	369,206	383,722	384,578	313,587	329,733	387,395	346,192	296,005
Naco, AZ	23	340,332	339,663	337,433	336,662	339,196	326,640	303,993	294,493	289,683	261,056	275,128
Santa Teresa, NM	24	227,776	293,457	377,843	204,799	83,297	73,815	70,040	69,618	80,911	NA	NA
Sasabe, AZ	25	39,195	42,867	42,268	38,440	32,823	34,942	31,977	25,962	22,322	21,064	20,693
U.S. - Mexico Border Total		**91,341,838**	**88,068,391**	**90,093,001**	**89,526,957**	**91,156,796**	**89,469,745**	**83,854,491**	**80,052,978**	**62,429,373**	**61,785,071**	**66,409,554**

Source: Border Trade Statistics, U.S. Customs. U – Data are unavailable.

Appendix 10.4
1994-2004 Incoming (Northbound) Commercial Truck Crossings Along the U.S.-Mexico Border

U.S. PORT NAME	2004 Rank	2004	2003	2002	2001	2000	1999	1998	1997	1996	1995	1994
Laredo, TX	1	1,391,850	1,354,229	1,441,653	1,403,914	1,493,073	1,486,489	1,352,198	1,251,365	1,015,905	747,241	667,907
Otay Mesa/San Ysidro, C	2	726,164	697,152	731,291	708,446	688,340	646,587	606,384	567,715	530,704	445,770	439,654
El Paso, TX	3	719,545	659,614	705,199	660,583	720,406	673,003	605,980	582,707	556,134	606,742	573,933
Hidalgo, TX	4	454,351	406,064	390,282	368,395	374,150	325,225	266,547	234,800	205,028	177,459	164,900
Calexico East, CA	5	312,227	261,140	276,390	256,715	278,811	261,545	206,218	166,198	NA	NA	NA
Nogales, AZ	6	247,553	243,365	242,237	249,237	254,694	256,426	258,828	242,830	229,337	206,032	191,902
Brownsville, TX	7	226,289	229,389	248,869	251,613	299,238	303,540	276,779	247,578	226,367	223,689	267,316
Eagle Pass, TX	8	100,100	88,272	89,856	97,658	106,892	101,140	90,822	71,656	57,622	53,026	57,012
Tecate, CA	9	69,670	59,363	57,655	60,887	62,878	59,606	50,805	67,277	49,423	41,381	35,697
Del Rio, TX	10	64,061	65,609	72,039	59,942	61,228	58,843	53,623	45,059	39,720	37,431	33,462
San Luis, AZ	11	41,184	37,975	37,671	40,032	40,348	44,829	40,613	42,351	46,653	44,455	44,472
Rio Grande City, TX	12	40,815	35,523	26,330	25,724	24,065	20,832	17,872	16,130	14,084	12,668	16,720
Santa Teresa, NM	13	29,185	28,674	27,951	29,820	31,946	24,202	27,088	32,521	18,463	NA	NA
Douglas, AZ	14	28,146	26,122	24,362	31,520	33,594	32,568	35,656	35,718	38,089	36,272	37,140
Progreso, TX	15	23,064	19,571	23,886	19,844	12,001	16,617	15,503	18,926	23,521	20,838	23,423
Roma, TX	16	8,510	7,633	9,953	11,953	13,276	16,522	13,900	11,559	12,751	11,300	12,010
Presidio, TX	17	7,433	5,720	6,605	7,104	8,734	8,848	7,417	4,752	3,102	4,328	4,744
Naco, AZ	19	5,131	3,643	4,078	8,949	9,137	7,766	8,197	6,575	6,057	5,613	5,240
Columbus, NM	18	4,531	4,589	4,652	4,396	4,545	5,271	3,886	2,305	2,380	2,446	1,229
Andrade, CA	20	2,697	2,253	2,075	1,767	1,517	1,359	2,160	2,647	3,983	3,732	3,678
Lukeville, AZ	21	636	821	1,552	4,357	3,840	4,291	3,769	3,671	2,682	2,673	2,498
Sasabe, AZ	22	546	1,324	2,007	1,995	2,652	2,442	2,131	1,546	1,417	1,297	1,230
Fabens, TX	23	NA	NA	NA	108	214	170	165	168	136	249	525
Calexico, CA	24	NA	NA	NA	NA	NA	NA	2	33,611	170,526	175,983	178,428
U.S. - Mexico Border Total		**4,503,688**	**4,238,045**	**4,426,593**	**4,304,959**	**4,525,579**	**4,358,121**	**3,946,543**	**3,689,665**	**3,254,084**	**2,860,625**	**2,763,120**

Source: Border Trade Statistics, U.S. Customs. NA – Data not applicable.

Endnotes to Chapter 10

1. This does not include southbound crossings as measurements for outgoing traffic are unreliable, but doubling these totals is just as effective for a rough estimate of total northbound and southbound traffic since what comes through usually goes back.

2. Bureau of Transportation Statistics. U.S. Department of Transportation. 2004. "America's Freight Transportation Gateways."

3. Border regions also bear a greater public health burden from increased trade and immigration in proportion to economic prosperity. These and other demographic and social factors on both sides of the border interact to create health conditions distinct from other areas in the United States, including a higher risk for certain health problems and reduced access to healthcare services. The flow of people back and forth also guarantees efficient transmission of communicable diseases. Additionally, an unknown but significant proportion of the millions of annual border crossings are health related – medically underserved U.S. residents obtain lower priced prescriptions and over-the-counter medications as well as basic medical and dental services in Mexico while affluent and indigent Mexican residents obtain improved, specialized or otherwise unavailable healthcare services in the United States. (Maria Alvarez Amaya, 2003. "Health Issues on the U.S.-México Border," *Dígame, Policy & Politics on the Texas Border*, University of Texas at El Paso, Kendall/Hunt Publishing Company, Ch. 14, pp. 259-283).

4. Differing operating times between U.S. and Mexican Customs further compounds congestion at the bridges. Cargo trucks begin lining up on one side of the border as they wait for the other side of the border to open the inspection gates. Clearly a homogenous schedule would allow those first in line to be inspected before a bottleneck begins. Furthermore, the current inspection system is undermanned at a time when some stakeholders prefer a policy of 'stop and examine everything' as part of homeland security without differentiating between what is high risk and what is low risk. Old technologies and compliances from Mexican exporters to pre-clear cargo before reaching U.S. Customs and new ones recently implemented should help facilitate the movement of goods to some extent. Recent efforts have expanded the number of vehicle crossing lanes at some ports to alleviate the greater scrutiny required by Customs officials. While these efforts have helped, increased wait times to cross and congestion post September 11 remain serious social, economic, and environmental health and safety issues for border residents.

5 . See, DOT and Related Agencies Appropriations Act, 2002 at http://thomas.loc.gov/cgi-bin/query/F?c107:6:./temp/~c107jngmPf:e36500: Mexican trucks are mentioned in section 350.

6. At the port level, general wait times per international bridge can be assessed by monitoring radio stations that provide such information via U.S. Customs or from U.S. Customs directly with the proper credentials. Tracking this information is complex since it varies by bridge, date, time, events, and other factors inherent to the particular cities which are tied together. The Department of Homeland Security, U.S. Customs' website also provides snapshots of wait times and the number of open lanes for commercial and vehicle crossings for the international bridges at major ports of entry. These data, however, have proven unreliable. For example, the site transmitted from Washington D.C. can post a 5 minute delay at a specific bridge in El Paso when it is known for a fact by

those living there that the delay is far greater. Furthermore, there exists no historical time series for these data as what is posted is quickly erased after the next time set is posted, thereby limiting comparisons. It should be noted though that recent postings of wait times are far more within the range of being plausible versus past collections. For these reasons, wait times are most reliable when they are based on first-hand knowledge, personal crossing experience, and information about the individual ports that includes conversations with those who live there.

7. The dramatic change in pedestrian travel also results from altered southbound travel as individuals cross back and are mentioned as incoming northbound crossings. El Paso residents have curbed their social practices of entering Mexico. Like Cd. Juárez residents, El Pasoans walk across when they can do so. For example, many nightclubs and drug stores are located in downtown Cd. Juárez, just a few minutes walk from El Paso via the Paso Del Norte bridge. Refusing to travel across and wait in vehicle lines, more El Pasoans park their cars near the bridge, walk across, make their purchases or visit nightclubs, and walk back. On the more extreme side, some U.S. border residents have literally stopped going over to enjoy Mexico's restaurants, nightlife, and other entertainment venues because of the time uncertainty in returning.

8. See D. Schrank, "The 2005 Urban Mobility Report," Texas Transportation Institute, Texas A and M University, College Station, TX, May 2005.

9. See Schrank, pp. 11-14; congestion cost is value of time of person traveling ($123.45 per hour) plus excess fuel consumed at state average costs.

10. Base year 1997 is chosen because between 1994 and 1996, San Ysidro had unavailable data, thereby skewing the totals downward substantially.

11. Olmedo, C. and D. Soden. 2005. "Terrorism's Role in Re-Shaping Border Crossings: 11 September and the US Borders," *Geopolitics*, 10:1-26.

12. The Laredo District incorporates all ports of entry between the Lower Rio Grande and Middle Rio Grande regions in Texas. The El Paso District includes ports in the Upper Rio Grande region and in New Mexico. The San Diego and Nogales Districts include entries in California and Arizona, respectively. There are a total of 31 ports of entry in the Southwest Customs Districts and all but four are on the international boundary with Mexico. The exceptions are the ports of San Diego, Albuquerque, Phoenix, and Tucson.

13. Bureau of Transportation Statistics (BTS), U.S. Department of Transportation. Transborder Surface Freight. Data from the U.S. Census Bureau, Foreign Trade Division, prepared by the BTS.

14. The Otay Mesa port was developed in 1985 with only northbound cargo operations. In 1994, all southbound commercial traffic was moved from San Ysidro to Otay Mesa. Today, there is limited commercial truck and goods movement through the San Ysidro port. Because San Ysidro was the principal port prior to 1995, it is best to incorporate both ports as Otay Mesa/San Ysidro to obtain a consistent time series. Also in California, the Calexico East port became fully operational in 1997 and, thus, most exports and imports transferred to this site away from Calexico. Similarly, combining both ports as Calexico/Calexico East provides a consistent series since logistically they are adjacent to one another.