Chapter 3. Demographic, Socio-economic, and Land Use Profile

This chapter of the Border Master Plan provides an overview of the current and projected demographic and socio-economic information obtained for the Lower Rio Grande Valley–Tamaulipas Border Master Plan's Area of Influence. This chapter summarizes available population, employment, income, vehicle registration, and land use data for this area. It also includes summary information for the major trade corridors that traverse the Area of Influence.

3.1 U.S. Demographic and Socio-economic Characteristics

As described in Chapter 1, the Area of Influence is made up of the border counties of TxDOT's Pharr District and the border Mexican municipalities in the State of Tamaulipas. The U.S. counties and Mexican municipalities that form the Area of Influence cover an area of 11,264.53 square miles (see Figure 3.1).

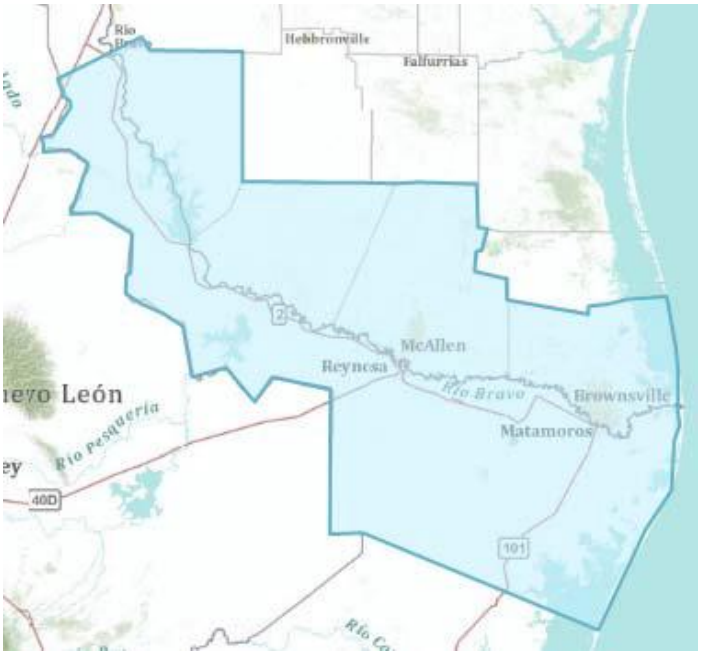


Figure 3.1: Area of Influence

The U.S. counties included in the Area of Influence are Cameron, Hidalgo, Starr, and Zapata. The U.S. Area of Influence is bordered by Webb County (part of TxDOT's Laredo District) to the northwest and the counties of Jim Hogg, Brooks, Kenedy, and Willacy (part of TxDOT's Pharr District) to the north.

The following demographic, socio-economic, vehicle registration, and land use data were obtained from the Texas State Data Center and Office of the State Demographer, the Texas Department of State Health Services, the U.S. Census Bureau, the U.S. Bureau of Labor Statistics, and the U.S. Bureau of Economic Analysis. The demographic and socio-economic data reflect the latest available data (e.g., 2010 Census data).

3.1.1 Population

Table 3.1 shows that the total population of the U.S. counties included in the Area of Influence was 1,130,990 in 2005. Between 2005 and 2010, population in the area increased at an annual average rate of 2.1 percent to a total of 1,255,975 in 2010—or approximately 5.0 percent of Texas's total population in 2010.

It is expected that the region's population will continue to increase an average rate of 1.9 percent per year from 2010 to 2030. Hidalgo County is expected to see the highest population growth at 2.0 percent per year, while Cameron County is expected to see a population growth rate of 1.6 percent per year between 2010 and 2030. By 2030, the population in the U.S. Area of Influence is expected to reach 1,815,967, representing an increase of 559,992 people between 2010 and 2030.

Table 3.1: Population (2005–2030)

County	Year			AAGR*	
	2005**	2010	2030∞	2005–2010	2010–2030
Cameron	378,074	406,220	559,593	1.4%	1.6%
Hidalgo	677,902	774,769	1,156,580	2.7%	2.0%
Starr	61,193	60,968	80,085	−0.1%	1.4%
Zapata	13,821	14,018	19,709	0.3%	1.7%
U.S. Area of Influence	*1,130,990*	*1,255,975*	*1,815,967*	*2.1%*	*1.9%*
Texas	*22,859,968*	*25,145,561*	*37,285,486*	*1.9%*	*2.0%*

Note: * Average annual growth rate (AAGR)[1]

Source: ** Texas Department of State Health Services[2]

∞ Texas State Data Center 2012 population projections using 0.5 migration scenario[3]

3.1.2 Employment

Table 3.2 shows that 393,706 people were employed in the U.S. counties in the Area of Influence in 2005. Between 2005 and 2010, employment increased at an average annual rate of 2.3 percent to 440,957 in 2010—representing 3.9 percent of the total employment in Texas. Starr County experienced the highest average annual

employment growth rate of 2.7 percent in the U.S. Area of Influence, and Zapata County experienced the lowest average annual employment growth rate of 1.5 percent.

Employment in 2030 was estimated by applying the AAGR for employment between 2002 and 2012 to the 2010 employment numbers. Between 2010 and 2030, employment in the U.S. Area of Influence is expected to increase at 2.5 percent, using the AAGR between 2002 and 2012. Employment in Hidalgo, Starr, and Zapata Counties is projected to increase at a slightly higher rate (3.1 percent, 2.6 percent, and 4.4 percent, respectively), while the average annual employment growth rate in Cameron County is expected to be slightly lower than the average at 1.4 percent (see Table 3.2).

Table 3.2: Employment (2005–2030)

County	Year			AAGR	
	2005	2010	2030*	2005–2010	2010–2030*
Cameron	129,893	142,049	188,857	1.8%	1.4%
Hidalgo	240,611	272,730	499,164	2.5%	3.1%
Starr	18,465	21,084	34,980	2.7%	2.6%
Zapata	4,737	5,094	12,019	1.5%	4.4%
U.S. Area of Influence	393,706	440,957	735,020	2.3%	2.6%
Texas	10,551,547	11,273,239	15,192,170	1.3%	1.5%

Note: * Employment projections for 2030 were determined using the AAGR between 2002 and 2012.

Source: Texas Workforce Commission[4]

3.1.3 Income

Table 3.3 shows that the average per-capita income in the U.S. Area of Influence of $16,402 was well below the statewide per-capita income of $33,220 in 2005. However, between 2005 and 2010, the average annual per-capita income increased by 5.2 percent in the U.S. Area of Influence relative to a statewide average annual increase of 2.8 percent. Although this increase narrowed the gap between the statewide per-capita income and the U.S. Area of Influence per-capita income, the gap remains wide. Between 2005 and 2010, Starr and Zapata Counties experienced, on average, an annual per-capita income growth rate higher than the annual per-capita income growth rate in Cameron and Hidalgo Counties.

Per-capita income estimates for the U.S. Area of Influence for 2030 were calculated using the 2001 to 2011 compound annual growth rate (CAGR) for the counties and were an average of 4.9 percent annually.

Table 3.3: Per-Capita Income (2005–2030)

County	Year			CAGR*	
	2005	2010	2030**	2005–2010	2010–2030**
Cameron	$18,403	$22,557	$48,143	4.2%	3.9%
Hidalgo	$17,286	$21,167	$45,060	4.1%	3.9%
Starr	$13,184	$18,457	$61,775	7.0%	6.2%
Zapata	$16,735	$22,181	$72,299	5.8%	6.1%
U.S. Area of Influence∞	*$16,402*	*$21,091*	*$56,819*	*5.2%*	*5.1%*
Texas	*$33,220*	*$38,222*	*$71,764*	*2.8%*	*3.2%*

Note: * Compound annual growth rate[1]

** Projections are based on 2001 to 2011 CAGR and are not adjusted for inflation.

∞ U.S. Area of Influence per-capita income is an average of per-capital incomes of all counties in the area of influence.

Source: U.S. Department of Commerce Bureau of Economic Analysis[5]

3.1.4 Vehicle Registrations

The number of registered vehicles and the daily vehicle miles traveled in each U.S. Area of Influence county in 2006 and 2011 are shown in Table 3.4. Hidalgo County accounted for the largest number of registered vehicles and daily vehicle miles traveled, followed by Cameron, Starr, and Zapata Counties.

Between 2006 and 2011, Hidalgo County registered an additional 85,689 vehicles, Cameron County registered an additional 33,494 vehicles, Starr County registered an additional 11,188 additional vehicles, and Zapata County registered an additional 2,987 vehicles. These four counties made up 7.2 percent of the total increase in registered vehicles[6] in Texas. Daily vehicle miles traveled decreased by 1.4 percent in Texas, but increased by 4.8 percent, 5.3 percent, 1.5 percent, and 9.1 percent in Cameron, Hidalgo, Starr, and Zapata Counties, respectively.

Table 3.4: Registered Vehicles and Daily Vehicle Miles

County	Registered Vehicles		Percent Change	Daily Vehicle Miles		Percent Change
	2006	2011		2006	2011	
Cameron	238,765	272,259	14.0	5,597,186	5,868,084	4.8
Hidalgo	415,187	500,876	20.6	9,616,246	10,127,589	5.3
Starr	37,413	48,601	29.9	1,078,313	1,094,258	1.5
Zapata	9,861	12,848	30.3	390,486	426,120	9.1
U.S. Area of Influence	*701,226*	*834,584*	*19.0*	*16,682,231*	*17,516,051*	*5.0*
Texas	*20,084,036*	*21,926,312*	*9.2*	*477,769,968*	*470,844,530*	*−1.4*

Source: TxDOT[7] and Texas State Comptroller[8]

3.1.5 Land Use

Table 3.5 provides an overview of the farmland, total area, and population density in the counties in the U.S. Area of Influence and Texas as a whole. The table indicates that most of the area in Texas (approximately 78.0 percent) and in the U.S. Area of Influence (approximately 72.9 percent) is designated as farmland. The highest population densities (persons per square miles) are in Cameron and Hidalgo Counties, which are home to the Brownsville-Harlingen and McAllen-Edinburg-Mission metropolitan statistical areas. On the other hand, the population density in Starr and Zapata Counties is well below the Texas average of 96 persons per square mile (see Table 3.5).

Table 3.5: Land Use Data

County	Farmland (Square Miles)*	Land Area (Square Miles)	Population Density** (Persons/ Square Miles)
Cameron	546.0	891	456
Hidalgo	1,129.0	1,571	493
Starr	1,020	1,223	50
Zapata	718	998	14
U.S. Area of Influence	*3,413*	*4,683*	*268*
Texas	*203,748*	*261,232*	*96*

Note: * Based on 2007 Census of Agriculture statistics

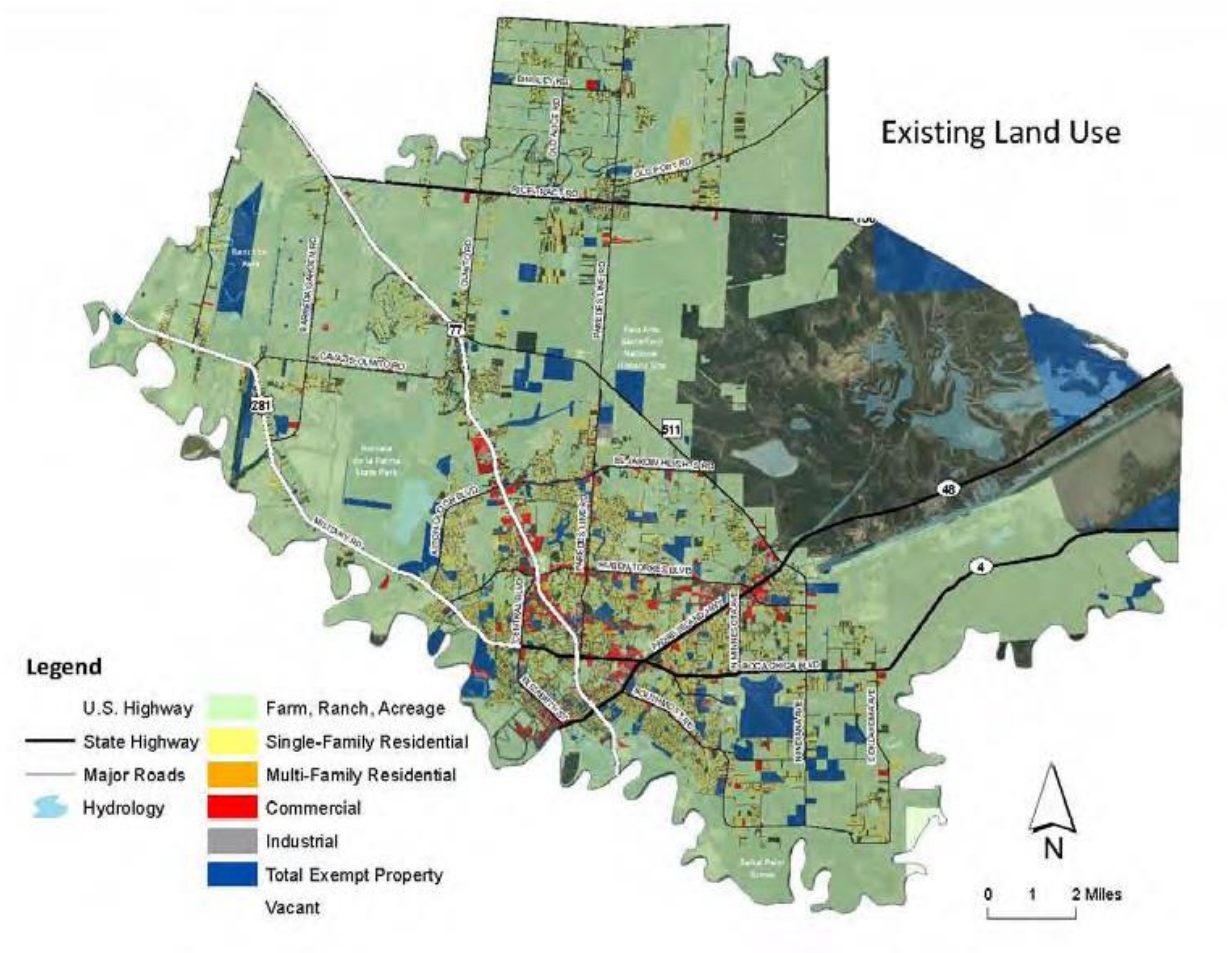
** Based on 2010 population statistics

Source: U.S. Department of Agriculture[9] and U.S. Census Bureau[10]

In addition, more detailed land use information was also obtained from BMPO, HSBMPO, and HCMPO.

BMPO encompasses the cities of Bayview, Brownsville, Indian Lake, Los Fresnos, and Rancho Viejo. The planning area covers approximately 280 square miles, extends across Cameron County, and borders with Matamoros, Mexico, and the HSBMPO area.[11] Figure 3.2 illustrates that most of the land use in the BMPO area was rural, with a large percentage of the land use classified as farm, ranch, or acreage, in 2009.

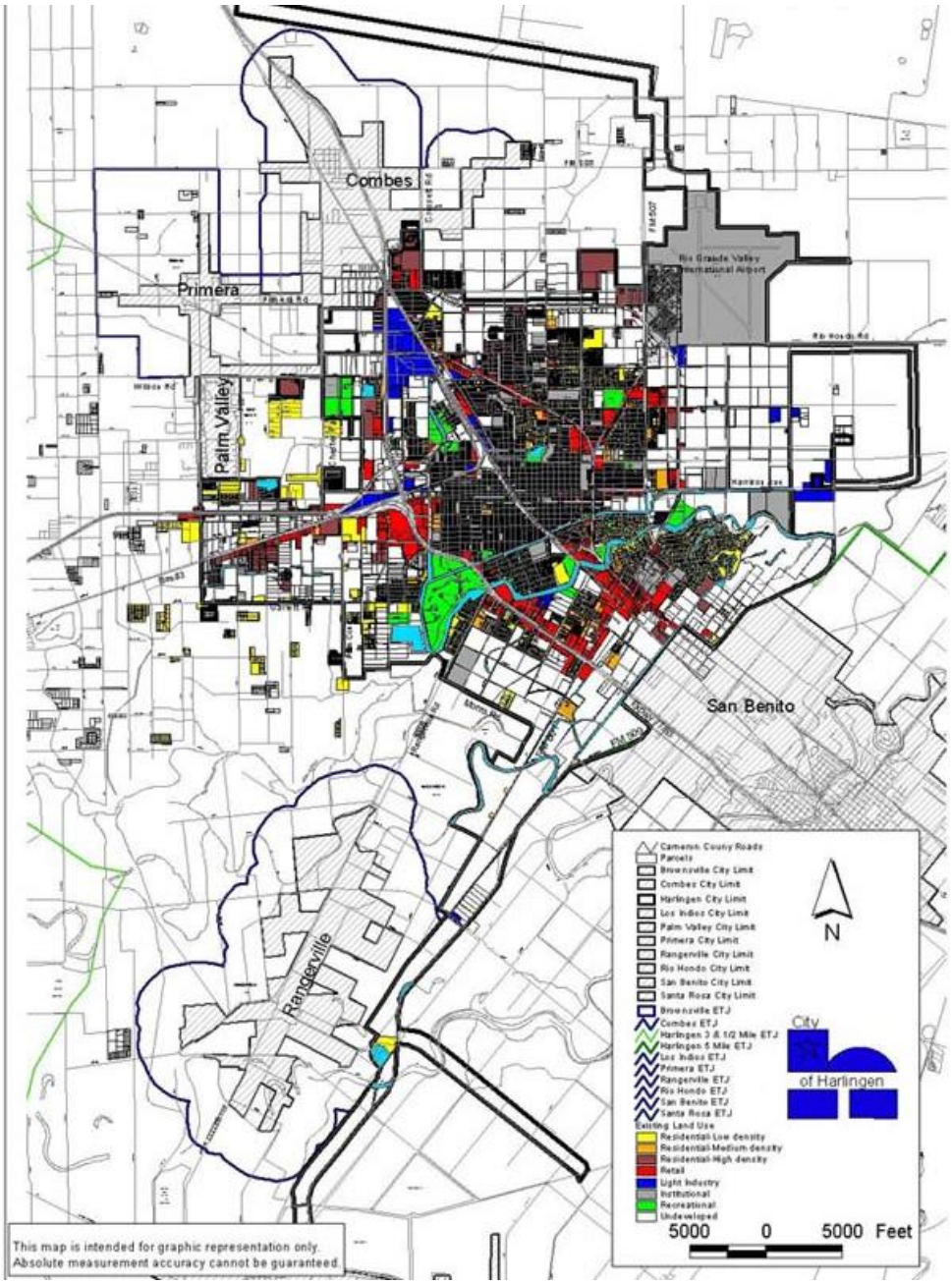
Figure 3.2 also shows that a large percentage of the land is classified as single-family residential lots. Commercial land uses are clustered in downtown Los Fresnos and along major corridors, such as US 77/US 83/IH 69E and Padre Island Highway. Tourist attractions include beaches, the Gladys Porter Zoo, museums, and the Palo Alto Battlefield National Historic Site[12].



Source: BMPO[12]

Figure 3.2: BMPO Land Use Profile (2009)

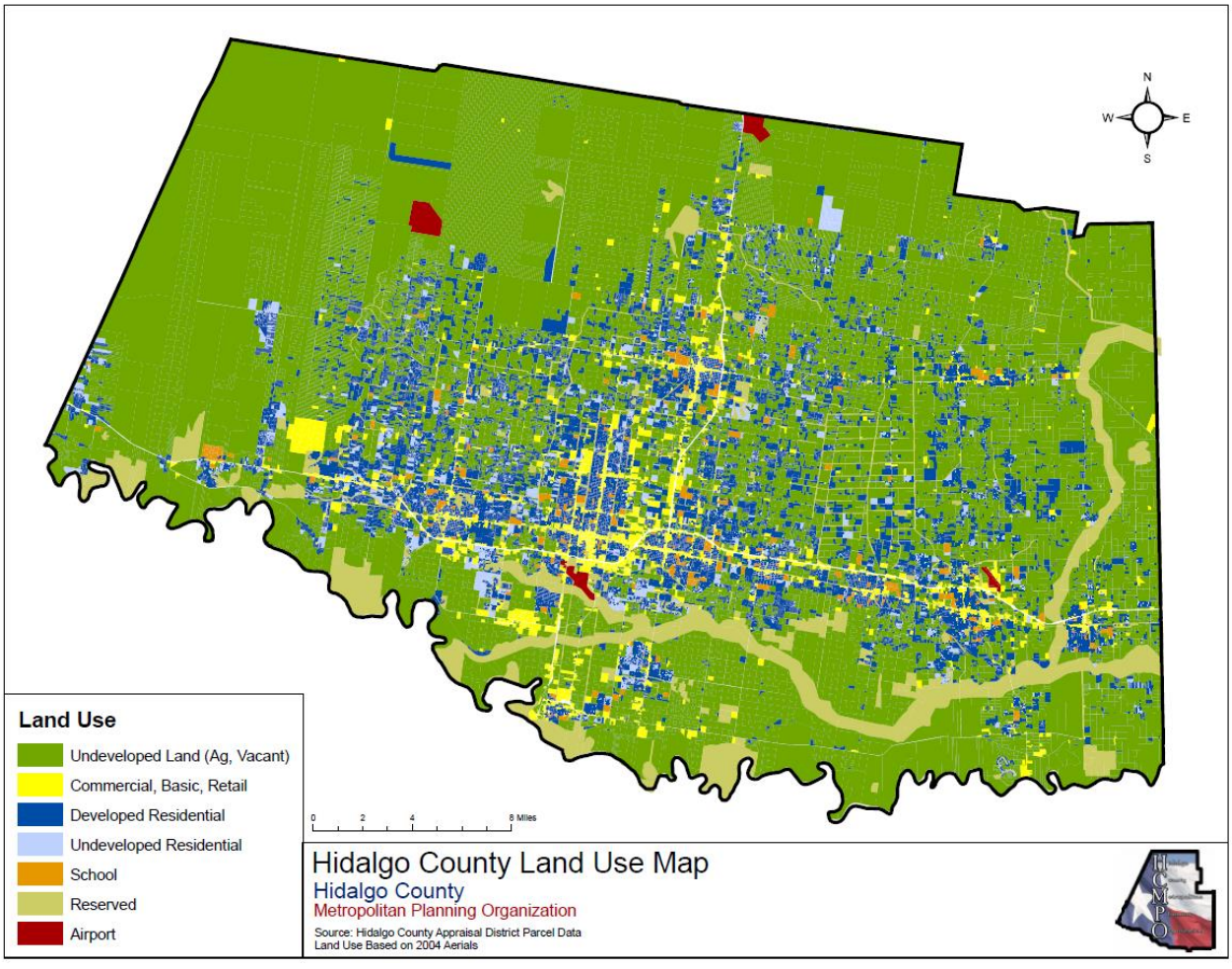
The 2000 land use map[13] for Harlingen is shown in Figure 3.3. The estimated total area is 24,957 acres. According to the City of Harlingen, 12.3 percent of the 2000 land use was low-density residential, 1.9 percent was medium-density residential, 2.8 percent was high-density residential, 6 percent was retail, 1.7 percent was industrial, 2.3 percent was recreation/public facilities, 8.9 percent was institutional, 39.2 percent was vacant land, and 24.9 percent was other uses (streets and water).[14]



Source: City of Harlingen[14]

Figure 3.3: City of Harlingen Land Use Map (2000)

Based on 2004 aerials, Hidalgo County's land use was a mix of undeveloped agricultural or vacant land, commercial/basic/retail developments, developed residential areas, undeveloped residential land, schools, reserved land, and airports. As Figure 3.4 illustrates, developed residential areas and commercial/basic/retail developments were found near the major roadway corridors such as US 83/BU 83, and US 281. Based on the input at public meetings, consultant analysis, and local expertise, Hidalgo County reached consensus on a transportation and land use vision in 2010 called the Vision Hidalgo County Scenario Planning Study, which focuses on livability and greater access to jobs and entrepreneurial opportunities. The county seeks to limit sprawl, increase urban density, conserve farm and natural areas, and diversify its housing and employment opportunities.[15] This document is available on the HCMPO website.



Source: HCMPO[15]

Figure 3.4: Hidalgo County Land Use Map (2004)

3.2 U.S. Trade Corridors

The trade corridors (current and potential) traversing the study area are the IH 69 corridor, US 281, and US 77. This section of the report summarizes salient information about these trade corridors.

3.2.1 IH 69 Corridor

The proposed 1,600-mile IH 69 corridor will connect Michigan, Indiana, Kentucky, Tennessee, Mississippi, Arkansas, Louisiana, and Texas. In Texas, the corridor starts at US 84 (in Joaquin) and US 59 (in Texarkana) and extends to Laredo and the Rio Grande Valley (see Figure 3.5). Congress has designated the highway as a High Priority Corridor and a Future Interstate Highway. IH 69 is complete through Michigan. Mississippi and Indiana have completed certain segments of IH 69, and Kentucky and Tennessee have designated portions of existing highways as IH 69. The first segment of IH 69 in Texas was on the existing US 77 from IH 37 in Corpus Christi to SH 44 in Robstown (subsequently designated IH 69E).[16]

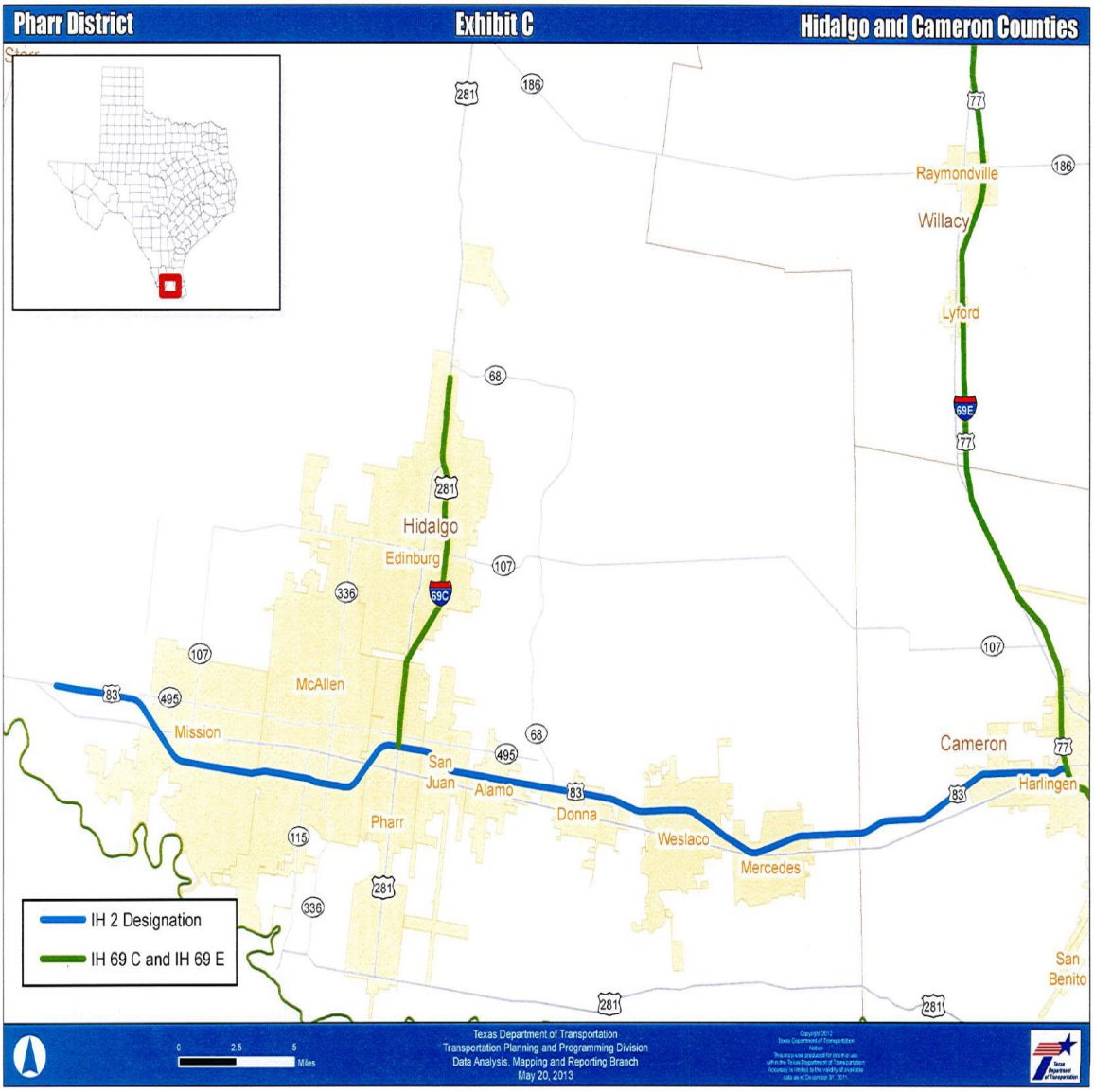
As of May 24, 2013, the American Association of State Highway and Transportation Officials and the FHWA administrator approved, and TTC ordered, that:

- A 3.5-mile segment of US 59, from IH 30 to SL 151 in Texarkana, be designated as IH 369.
- A 53.3-mile segment of US 77, from the junction of BU 77 north of Raymondville to just north of the U.S.-Mexico International Border Crossing Complex, be designated as IH 69 East (IH 69E).
- A 46.8-mile segment of US 83, from the junction of Shower Road in Palmview to US 77 in Harlingen, be designated as IH 2.
- A 13.5-mile segment of US 281, from the junction of FM 2812 in Edinburg to US 83 in Pharr, be designated as IH 69 Central (IH 69C) (see Figure 3.6).[17]

The IH 69 alignment in Texas includes multiple highway sections, but over 200 miles are built to or close to interstate highway standards. All States along the corridor are continuing to plan and develop projects along the IH 69 corridor.[16]

Source: Alliance for I-69 Texas[18]

Figure 3.5: Proposed IH 69 Corridor in Texas



Source: TxDOT (2013)[17]

Figure 3.6: IH Designations in Lower Rio Grande Valley

3.2.2 US 281

US 281 is another border-to-border route in Texas, linking the Texas-Mexico border with the North Dakota-Canada border. US 281 begins near the Texas-Mexico border in Brownsville near the intersection of US 77 and SH 48. From this point, the route proceeds north and then west along the Rio Grande, turning north near the Pharr-Reynosa International Bridge in McAllen (see Figure 3.7).

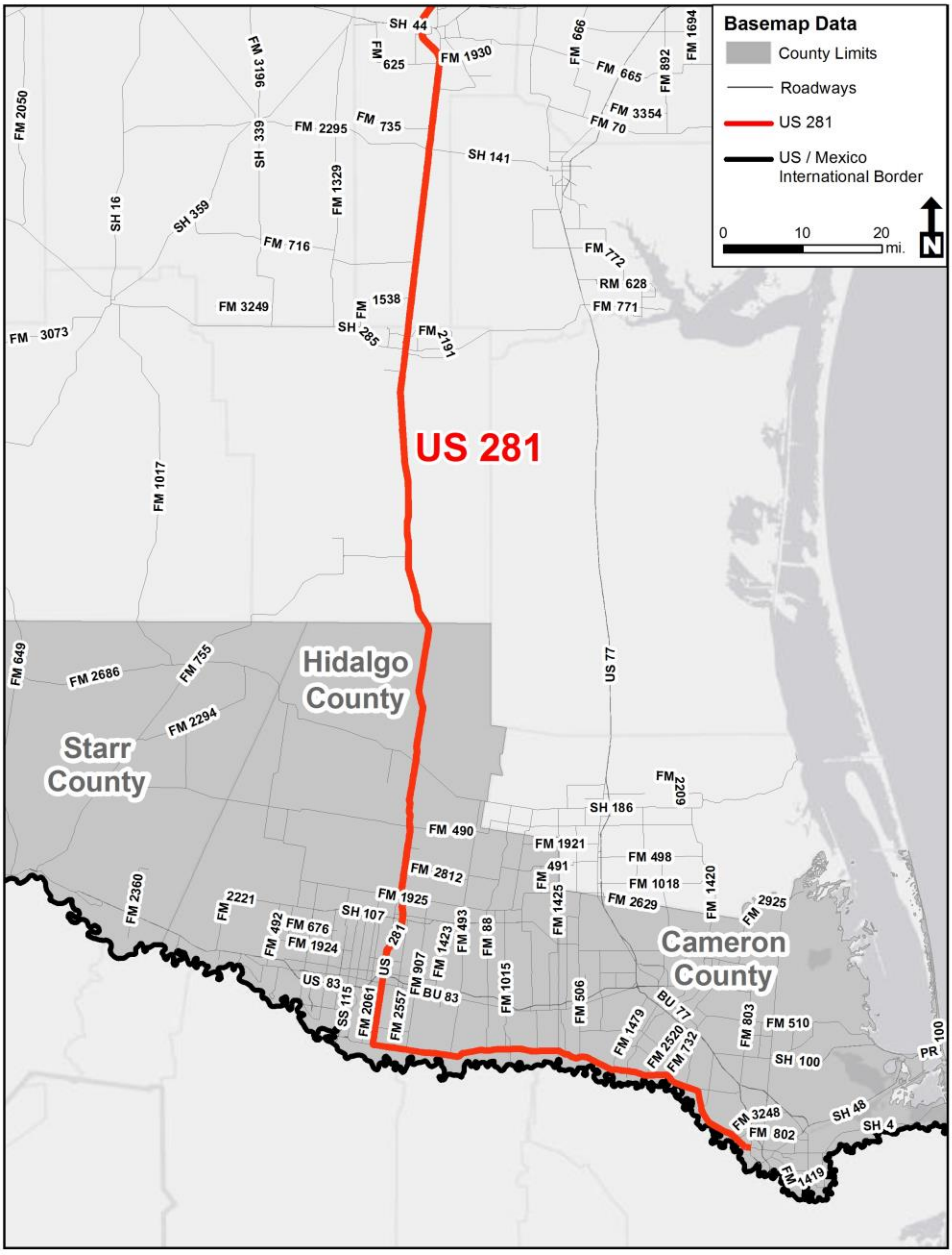


Figure 3.7: US 281 in Lower Rio Grande Valley

US 281 continues north, connecting Edinburg, Alice, San Antonio, and Blanco. It bypasses Austin and the Dallas/Fort Worth area, connecting Johnson City, Marble Falls, Lampasas, Stephenville, Mineral Wells, Jacksboro, and Wichita Falls before continuing north to Oklahoma.[19] Although some existing sections are built to freeway standards, most of the existing US 281 sections are rural two- and four-lane expressways.

TxDOT is planning to expand 48 miles of US 281 in Hidalgo and Cameron counties from Spur 600 at the Pharr-Reynosa International Bridge to SH 100 near Los Fresnos. This section of US 281 will be a four-lane divided highway just north of and

parallel to the existing US 281 route. However, the planned project requires cooperation from the affected communities to secure the right of way. The planned project will alleviate traffic in the area and provide an alternative east-west route to US 83, but concerns have been expressed about potential negative impacts on businesses and landowners in the region.

3.2.3 US 77

The southern terminus of US 77 is the junction with MEX[20] 180 at the Veteran's International Bridge in Brownsville, as Figure 3.8 indicates. From there, the route merges almost immediately with US 83 and proceeds northwest to San Benito and Harlingen, where it deviates from US 83 and splits into US 77 and US 77 Business. It then proceeds north to connect to Raymondville, Kingsville, and Corpus Christi, where it briefly coincides with IH 69 and IH 37.[21] US 77 then continues northeast to Refugio, where the highway divides into US 77 (serving Victoria) and US 77 Alternate (serving Cuero and Yoakum). The highway connects again in Hallettsville and crosses IH 10 in Schulenberg, before continuing north, passing between Austin and College Station. US 77 connects with IH 35 in Waco and continues along IH 35E through Waxahachie and Dallas. In Denton, IH 35E and IH 35W reconnect. US 77 coincides with IH 35 from Denton north to Oklahoma. Some US 77 sections are constructed to Interstate Highway standards—primarily where the route follows other interstates or highways—but most of US 77 through Texas is rural two- and four-lane expressways.[21]

TxDOT has held public hearings and completed environmental assessments regarding upgrading US 77 between Harlingen and Corpus Christi to meet Interstate Highway standards and to improve safety and mobility. The proposed improvements include expansion to a four-lane divided highway and construction of new overpasses, interchanges, and frontage roads. These improvements will require approximately 689 acres of additional right of way (249 acres in Kleberg County and 440 acres in Nueces County).[22]

The addition of tolled truck lanes to the existing US 77 corridor in southern Texas was also analyzed in the *Lower Rio Grande Valley and Laredo Region Freight Study*.[23] Tolled truck lanes were considered in addition to other proposed improvements for a majority of the corridor length. The report identifies alternative alignments for tolled truck lanes east of Harlingen toward the Free Trade Bridge at Los Indios, the Port of Brownsville, and from the proposed Port of Brownsville Bridge to Mexico. Traffic projections reported in the study showed a projected increase in the percentage of truck traffic on the corridor for both the tolled and non-toll truck lanes scenarios.[23]

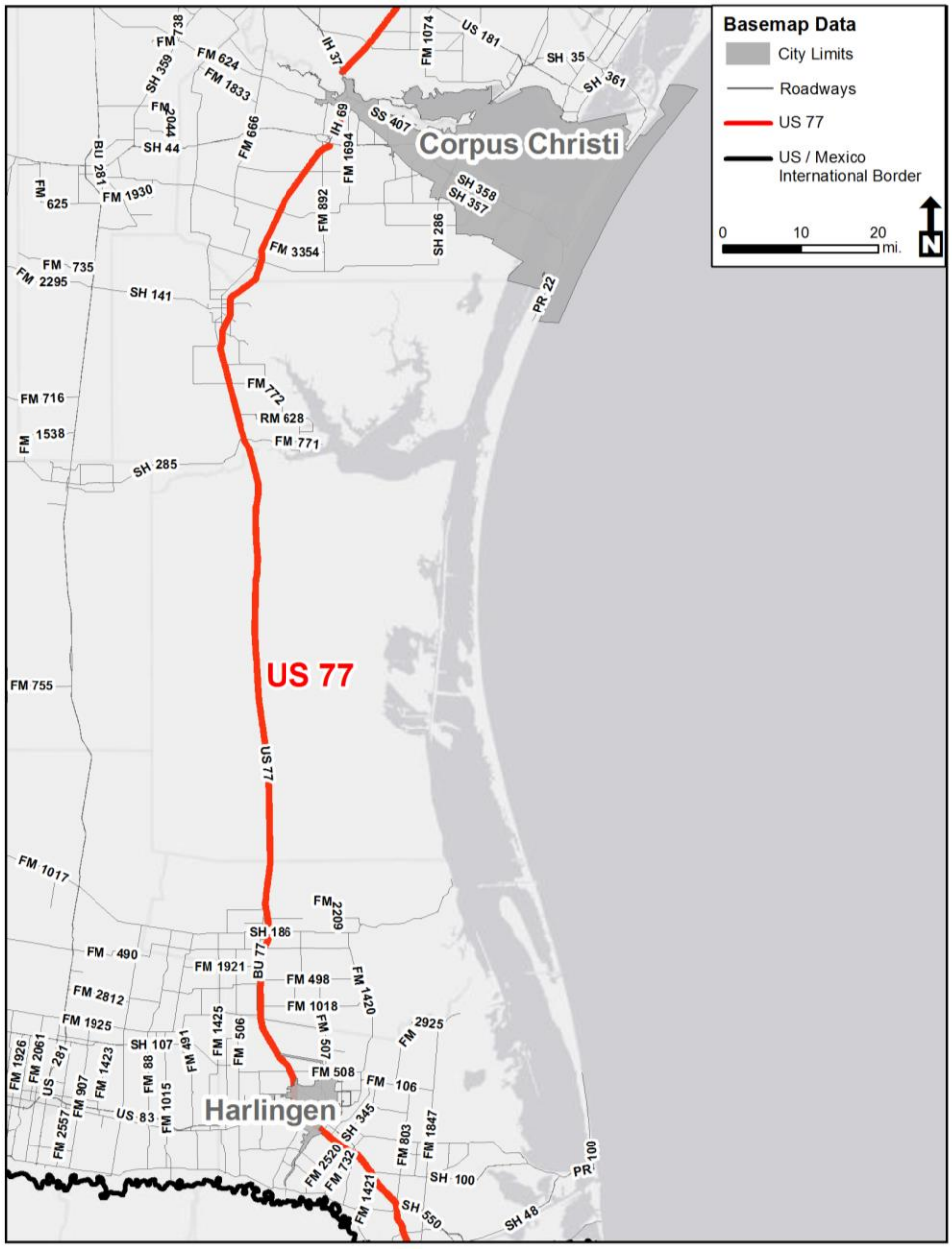


Figure 3.8: US 77 in Texas

3.3 Mexico's Demographic and Socio-economic Characteristics

The Mexican municipalities included in the Mexican Area of Influence are Camargo, Guerrero, Gustavo Díaz Ordaz, Matamoros, Mier, Miguel Alemán, Reynosa, Río Bravo, and Valle Hermoso in the State of Tamaulipas. The following demographic, socio-economic, and land use data were obtained from Consejo Nacional de Población (CONAPO), Instituto Nacional de Estadística y Geografía (INEGI), Comisión Nacional de los Salarios Mínimos (CONASAMI), and other municipal plans and documents.

3.3.1 Population

Table 3.6 shows that the total population of the Mexican municipalities included in the Mexican Area of Influence was 1,223,504 in 2005 (or about 40 percent of the total population in Tamaulipas in 2005). Between 2005 and 2010, the population of these municipalities increased at an average annual rate of 2.0 percent to a total of 1,349,496 in 2010 (or about 41.8 percent of the total population in Tamaulipas in 2010). However, the population increase was concentrated in the largest municipalities in the Mexican Area of Influence: Matamoros and Reynosa. With the exception of these two municipalities and the Municipalities of Camargo and Valle Hermoso, the total population in the remaining five municipalities decreased between 2005 and 2010. In the Municipalities of Guerrero, Gustavo Díaz Ordaz, and Miguel Alemán, the total municipal population has decreased by an average of approximately 2.0 percent or more per year between 2005 and 2010.

Table 3.6: Population (2005–2030)

State/Municipality	Year			AAGR	
	2005	2010	2030	2005–2010	2010–2030
Camargo	17,761	18,168	18,079	0.5%	0.0%
Guerrero	3,982	3,566	2,404	−2.2%	−2.0%
Gustavo Diaz Ordaz	15,387	14,020	9,364	−1.8%	−2.0%
Matamoros	463,955	499,767	607,544	1.5%	1.0%
Mier	6,672	6,365	4,984	−0.9%	−1.2%
Miguel Alemán	24,520	22,316	14,940	−1.9%	−2.0%
Reynosa	520,358	612,711	938,639	3.3%	2.2%
Río Bravo	108,100	107,414	97,407	−0.1%	−0.5%
Valle Hermoso	62,769	65,169	70,387	0.8%	0.4%
Mexican Area of Influence	*1,223,504*	*1,349,496*	*1,763,748*	*2.0%*	*1.3%*
Tamaulipas	*3,035,926*	*3,230,307*	*3,824,091*	*1.2%*	*0.8%*

Source: CONAPO[24] and INEGI[25]

Furthermore, between 2010 and 2030, the area's population is expected to increase, but at a lower rate of 1.3 percent per year to reach 1,763,748 by 2030—yielding an increase of 414,252 people between 2010 and 2030. This is partly explained by lower anticipated population growth rates in the Municipalities of Camargo, Matamoros,

Reynosa, and Valle Hermoso, as well as lower anticipated populations in the five municipalities that have seen a negative population growth rate since 2005.

The decrease in population growth in the Mexican Area of Influence is similar to that anticipated for the entire State of Tamaulipas and is therefore not a phenomenon limited to the Mexican Area of Influence.

3.3.2 Employment

Table 3.7 shows that 543,679 people were employed in the Mexican Area of Influence in 2005 (representing 44.7 percent of the total employment in the State of Tamaulipas). Between 2005 and 2010, employment increased at an average annual rate of 2.2 percent to reach 604,745 in 2010 (representing 45.1 percent of the total employment in the State of Tamaulipas in 2010). Five municipalities—Camargo, Matamoros, Reynosa, Río Bravo, and Valle Hermoso—experienced an increase in employment, while employment in all the remaining municipalities decreased between 2005 and 2010.

Table 3.7: Employment (2005–2030)

State/Municipality	Year			AAGR	
	2005	2010	2030	2005 – 2010	2010– 2030
Camargo	7,892	8,142	9,196	0.6%	0.6%
Guerrero	1,769	1,598	1,223	−2.0%	−1.3%
Gustavo Diaz Ordaz	6,837	6,283	4,763	−1.7%	−1.4%
Matamoros	206,164	223,959	309,027	1.7%	1.6%
Mier	2,965	2,852	2,535	−0.8%	−0.6%
Miguel Alemán	10,896	10,000	7,599	−1.7%	−1.4%
Reynosa	231,228	274,572	477,439	3.5%	2.8%
Río Bravo	48,036	48,135	49,546	0.0%	0.1%
Valle Hermoso	27,892	29,204	35,802	0.9%	1.0%
Mexican Area of Influence	*543,679*	*604,745*	*897,130*	*2.2%*	*2.0%*
Tamaulipas	*1,217,455*	*1,342,209*	*1,982,846*	*2.0%*	*2.0%*

Note: The employment information for each municipality is estimated by INEGI from the population data for the respective municipality and States' percentage of economically active population.

Source: CONAPO[24] and INEGI[25]

Similar to the population forecasts, employment is expected to increase between 2010 and 2030, but at a higher rate of 2.0 percent per year to reach a total of 897,130 by

2030—resulting in an increase of 292,385 between 2010 and 2030 (see Table 3.7). Similar to the period 2005 to 2010, employment is expected to increase in the Municipalities of Camargo, Matamoros, Reynosa, Río Bravo, and Valle Hermoso. In the remaining municipalities, a decrease in employment is anticipated.

3.3.3 Income

Limited income information is available for the State of Tamaulipas and the Mexican municipalities in the Area of Influence. The minimum annual wage in the State of Tamaulipas was MXN $46.80 per day in 2005. This number was converted into an annual wage in U.S. dollars of $1,113, assuming a six-day week for 52 weeks a year and using the average annual exchange rate reported by Banco de México, Mexico's central bank, on November 8, 2012.

Table 3.8 shows that the average minimum annual wage increased an average of 1.3 percent per year in the State of Tamaulipas and the municipalities in the Area of Influence between 2005 and 2010 to reach $1,188 per year in 2010. Between 2010 and 2012, the minimum wage increased at an average annual rate of 2.7 percent per year to reach the current $1,253. For comparison, the minimum wage in Texas is $15,080 per year (assuming a 40-hour week and 52-week year schedule).

Table 3.8: Minimum Wage Data (2005–2012)

State/Municipality	Year			AAGR	AAGR
	2005	2010	2012	2005–2010	2010–2012
Camargo	$1,113	$1,188	$1,253	1.3%	2.7%
Guerrero	$1,113	$1,188	$1,253	1.3%	2.7%
Gustavo Diaz Ordaz	$1,113	$1,188	$1,253	1.3%	2.7%
Matamoros	$1,113	$1,188	$1,253	1.3%	2.7%
Mier	$1,113	$1,188	$1,253	1.3%	2.7%
Miguel Alemán	$1,113	$1,188	$1,253	1.3%	2.7%
Reynosa	$1,113	$1,188	$1,253	1.3%	2.7%
Río Bravo	$1,113	$1,188	$1,253	1.3%	2.7%
Valle Hermoso	$1,113	$1,188	$1,253	1.3%	2.7%
Tamaulipas	*$1,113*	*$1,188*	*$1,253*	*1.3%*	*2.7%*

Note: Mexican pesos have been converted based on the exchange rate of MXN $13.11 per dollar reported by Banco de México, Mexico's Central Bank, on November 8, 2012.

Minimum wages are calculated based on 48 hours a week for 52 weeks a year.

Source: CONASAMI[26] and INEGI[25]

Table 3.9 presents the percentages of workers that have minimum wage jobs in the State of Tamaulipas. Approximately 50 percent of the working population has between one and three minimum wage jobs, earning salaries between US $1,253 and US $3,759 on a yearly basis. Tamaulipas has a high percentage of workers that earn less than the minimum wage (12.4 percent), and only 10.1 percent of its workers earn five or more minimum wages.

Table 3.9: Number of Minimum Wages Earned by Working Population in Tamaulipas (2010)

State	Number of Minimum Wages					Others	
	<1	1–2	2–3	3–5	>5	No Income	Not Specified
Tamaulipas	12.4%	25.4%	24.6%	16.7%	10.1%	5.7%	5.1%

Note: The data correspond to the entire State, not only to the municipalities in the Area of Influence.

Source: INEGI[25]

3.3.4 Land Use

Tables 3.10 and 3.11 provide land use information for the State of Tamaulipas and the municipalities in the Mexican Area of Influence. Table 3.10 shows that most of the available land in the Mexican Area of Influence (approximately 64.4 percent) is currently used for agriculture and grazing. Of the remaining land area, approximately 26 percent is not developed (designated as agricultural or urban land use), and only 1.6 percent is designated as urban (used for commercial, industrial, and residential purposes). Finally, in terms of land area, the largest urban areas are found in the Municipalities of Matamoros, Reynosa, Río Bravo, and Valle Hermoso (see Table 3.11).

In addition to the information included in Tables 3.10 and 3.11, more detailed land use information was also obtained from the Municipal Plans of Matamoros, Reynosa, and Río Bravo. Figure 3.9 and Table 3.12 provide land use information for the City of Matamoros. Table 3.12 shows that more than half (59.8 percent) of the total land in the City of Matamoros is designated as residential (very low density, low density, medium density, and high density). Land used for transportation infrastructure accounts for 16.7 percent (primary and secondary corridors) of the total land area in the City of Matamoros, industrial parks account for 8.8 percent, and urban centers account for 2.5 percent. Interestingly, the rest of the land is designated as conservation areas, safeguard areas, water bodies, and flood plains, which means that land is limited to accommodate future growth.

Table 3.10: Land Use Percentages

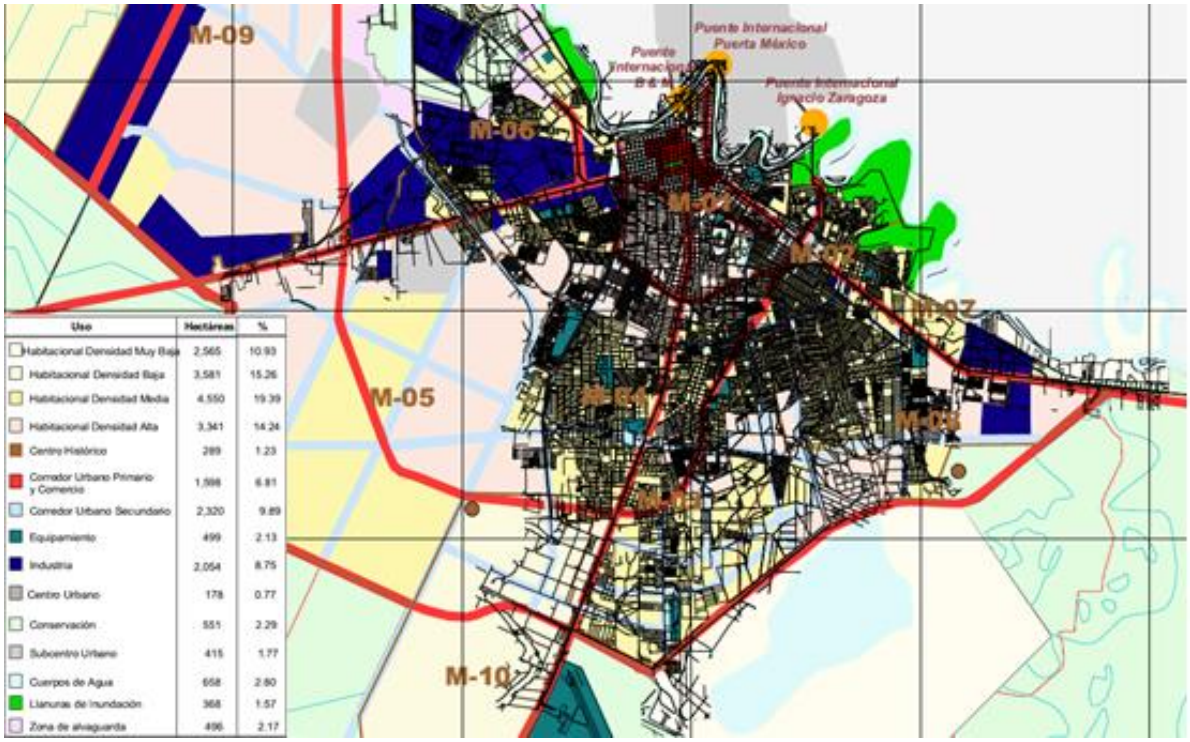
State/Municipality	Land Use Category			
	Agriculture & Grazing	Not Developed	Urban	Other
Camargo	64.0%	30.6%	0.8%	4.6%
Guerrero	43.0%	49.7%	0.1%	7.1%
Gustavo Diaz Ordaz	86.1%	12.6%	1.1%	0.2%
Matamoros	45.2%	31.7%	2.1%	20.9%
Mier	69.5%	30.0%	0.4%	0.1%
Miguel Alemán	71.9%	21.0%	0.7%	6.4%
Reynosa	77.7%	19.8%	2.3%	0.3%
Río Bravo	98.0%	0.1%	1.7%	0.3%
Valle Hermoso	95.5%	0.0%	2.7%	1.8%
Mexican Area of Influence	*64.4%*	*26.0%*	*1.6%*	*8.0%*
Tamaulipas	*46.5%*	*48.3%*	*0.9%*	*4.3%*

Source: INEGI[25]

Table 3.11: Land Use Data (2005)

Municipality	Area (Square Miles)											
	Agriculture	Pasture	Forest	Jungle	Bush	Other Vegetation	Secondary Vegetation	No Vegetation	Water Bodies	Urban	Reforested	Total
Camargo	96.85	132.84	0.00	0.00	98.13	0.00	12.34	0.00	16.38	2.80	0.00	359.34
Guerrero	13.36	389.72	0.00	0.00	422.11	0.00	43.80	0.00	66.94	1.22	0.00	937.15
Gustavo Diaz Ordaz	76.58	66.72	0.00	0.00	20.80	0.00	0.12	0.00	0.37	1.87	0.00	166.46
Matamoros	732.98	75.14	0.00	0.00	34.85	451.53	22.98	58.74	374.71	38.27	0.00	1,789.20
Mier	12.09	237.14	0.00	0.00	107.76	0.00	0.00	0.00	0.24	1.29	0.00	358.52
Miguel Alemán	85.92	90.68	0.00	0.00	48.33	0.00	3.36	0.00	15.71	1.75	0.00	245.75
Reynosa	470.43	471.90	0.00	0.00	195.98	0.00	42.19	1.05	3.14	27.28	0.00	1,211.97
Río Bravo	596.61	2.48	0.00	0.00	0.71	0.00	0.00	0.00	1.42	10.19	0.00	611.41
Valle Hermoso	331.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.13	9.37	0.00	347.49
Mexican Area of Influence	*2,416.81*	1,466.62	0.00	0.00	928.67	451.53	124.79	59.79	485.04	94.04	0.00	6,027.29
Tamaulipas	*7,916.95*	*6,460.33*	*1,804.75*	*2,279.86*	*5,367.33*	*908.65*	*4,537.82*	*100.02*	*1,300.94*	*278.95*	*17.22*	*30,972.82*

Source: INEGI[25]



Source: Municipality of Matamoros[27]

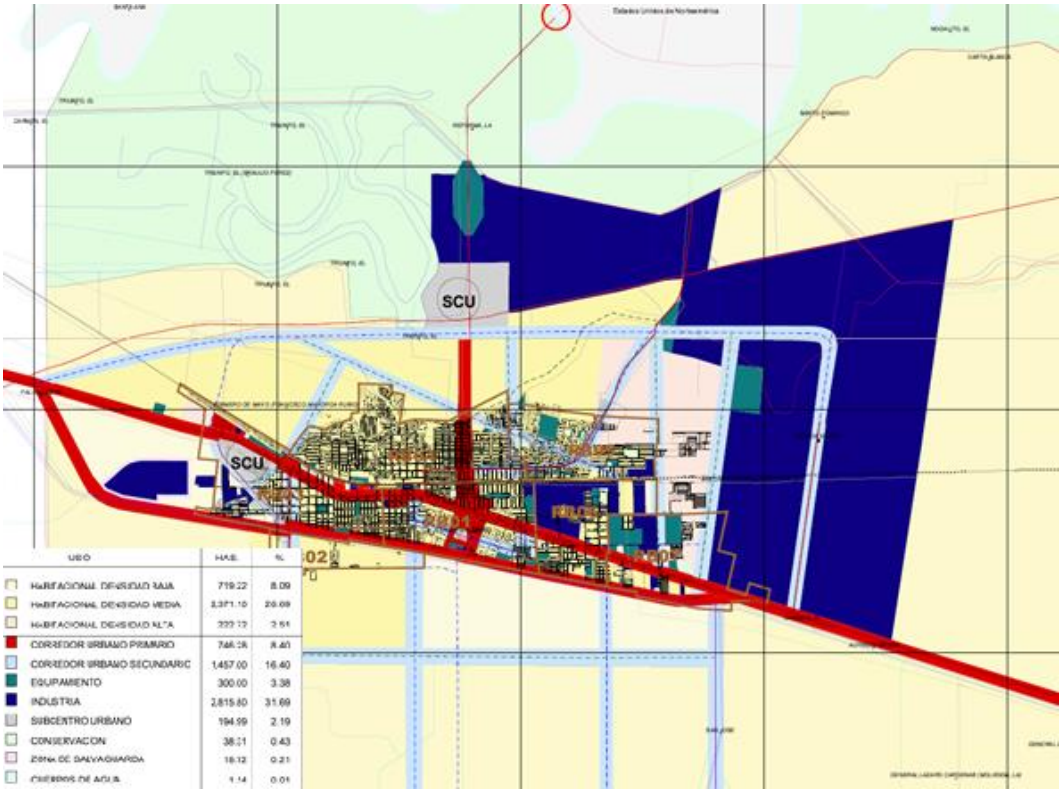
Figure 3.9: City of Matamoros Land Use Map (2001)

Figure 3.10 and Table 3.13 provide land use information for the City of Río Bravo. Unlike the City of Matamoros, less than half (37.29 percent) of the total land in the City of Río Bravo is designated as residential land use. Also, 31.69 percent of the land area is designated for industrial parks—a much larger percentage and area than what is available in the City of Matamoros. Land use for transportation facilities (24.8 percent) also accounts for a larger area compared to the City of Matamoros. On the other hand, the land designated as conservation areas, water bodies, and safeguard areas is much smaller than in the City of Matamoros, accounting for less than 1 percent of the total land area.

Table 3.12: City of Matamoros Land Use Data

Land Use Category	Percentage (%)	Area (Square Miles)
Residential Density: Very Low	10.93	9.90
Residential Density: Low	15.26	13.83
Residential Density: Medium	19.39	17.57
Residential Density: High	14.24	12.90
Historic Center	1.23	1.12
Primary Corridor	6.81	6.17
Secondary Corridor	9.89	8.96
Public	2.13	1.93
Industrial	8.75	7.93
Urban Center	0.77	0.69
Urban Sub-center	1.77	1.60
Conservation	2.29	2.13
Water Bodies	2.80	2.54
Flood Plains	1.57	1.42
Safeguard Areas	2.17	1.92
Total	*100.00*	*90.61*

Source: Municipality of Matamoros[27]



Source: Municipality of Río Bravo 2001[28]

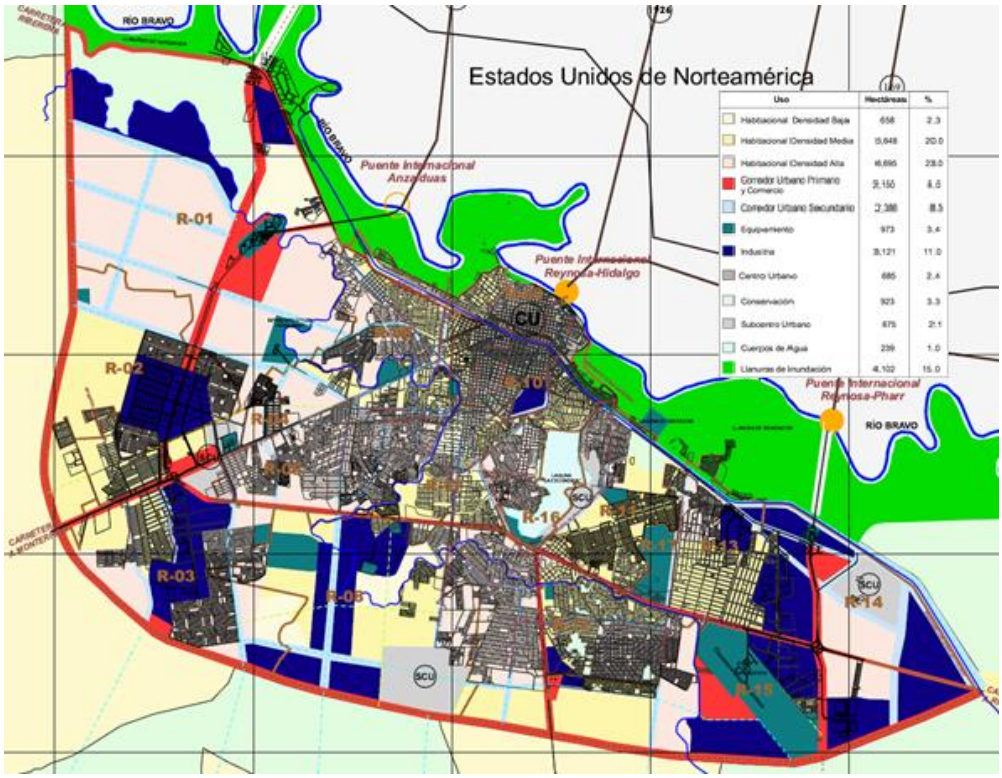
Figure 3.10: City of Río Bravo Land Use Map (2001)

Table 3.13: City of Río Bravo Land Use Data

Land Use Category	Percentage (%)	Area (Square Miles)
Residential Density: Low	8.09	2.78
Residential Density: Medium	26.69	9.15
Residential Density: High	2.51	0.86
Primary Corridor	8.40	2.88
Secondary Corridor	16.40	5.63
Public	3.38	1.16
Industrial	31.69	10.87
Urban Sub-center	2.19	0.75
Conservation	0.43	0.15
Water Bodies	0.21	0.07
Safeguard Areas	0.01	0.004
Total	*100.00*	*34.31*

Source: Municipality of Río Bravo[28]

Figure 3.11 and Table 3.14 provide land use information for the City of Reynosa. Figures 3.12 and 3.13 provide final drafts of 2012 land use maps that are still to be approved and published by this municipality. Table 3.14 shows that approximately 45.3 percent of the total land area is designated as residential. Land used for transportation infrastructure accounts for 16.5 percent (primary and secondary corridors) of the total land area in the City of Reynosa, industrial parks account for 11 percent, and urban centers account for 4.5 percent. Interestingly, a relatively large percentage of the land area (15 percent) is categorized as flood plains. The remaining land is designated as water bodies (1.0 percent) and as conservation areas (3.3 percent), which means that land is limited to accommodate future growth.



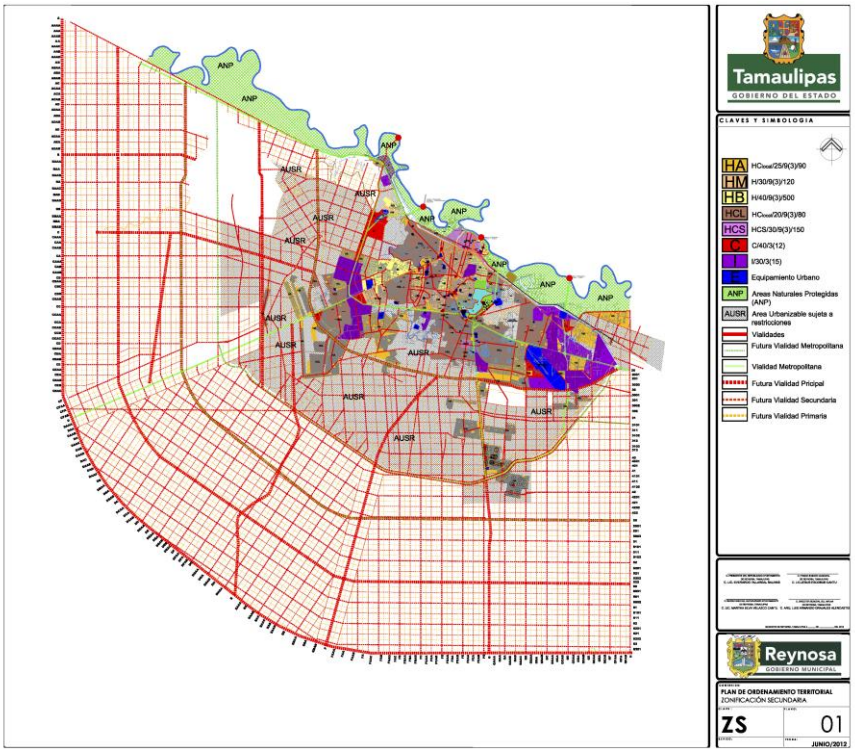
Source: Municipality of Reynosa[29]

Figure 3.11: City of Reynosa Land Use Map (2001)

Table 3.14: City of Reynosa Land Use Data

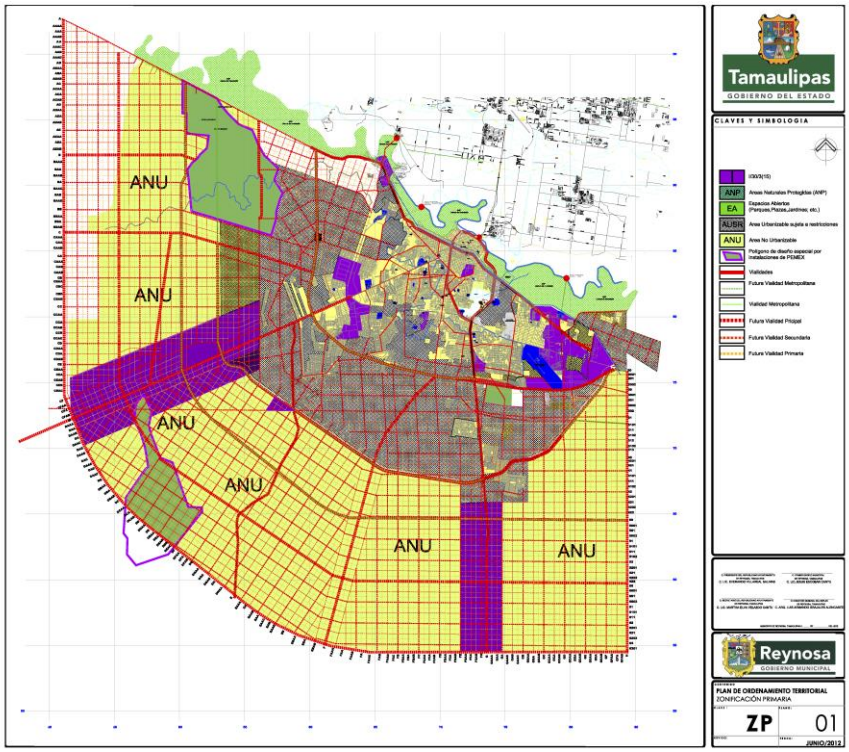
Land Use Category	Percentage (%)	Area (Square Miles)
Residential Density: Low	2.30	2.54
Residential Density: Medium	20.00	21.81
Residential Density: High	23.00	25.85
Primary Corridor	8.00	8.30
Secondary Corridor	8.50	9.21
Public	3.40	3.76
Industrial	11.00	12.05
Urban Center	2.40	2.64
Urban Sub-center	2.10	2.61
Conservation	3.30	3.56
Water Bodies	1.00	0.92
Flood Plains	15.00	15.84
Total	***100.00***	***109.09***

Source: Municipality of Reynosa[29]



Source: Municipality of Reynosa[30]

Figure 3.12: Municipality of Reynosa Land Use Map (Secondary Classification)—2012 Draft



Source: Municipality of Reynosa[29]

Figure 3.13: Municipality of Reynosa Land Use Map (Primary Classification)—2012 Draft

3.4 Mexico's Trade Corridors

3.4.1 Multimodal Corridor Master Plan

This section uses information from Mexico's Multimodal Corridor Master Plan (MCMP), which was concluded in 2010 for SCT.[31] The study was funded by the U.S. Trade Development Agency (USTDA) and conducted by Wilbur Smith Associates, with TTI; IHS Global Insight; Felipe Ochoa y Asociados, S.C.; and Romero Hicks and Galindo Abogados (RHG). The goal of the MCMP is to provide SCT with a tool to plan and promote investments in infrastructure and logistics systems that would serve the needs of Mexico's domestic market and enhance international trade with NAFTA partners and other countries.[32]

The study included several tasks that are relevant to the development of this Border Master Plan. One of the tasks involved performing a detailed analysis of current and future freight demand and supply. A lack of data required development of a freight demand model that was used to estimate:

- Freight flows through Mexico's major seaports.
- Cross-border traffic with the United States.
- Domestic freight flows with origins and destinations in Mexico.

The report stated that by 2020, Tamaulipas will be one of the 10 Mexican States[33] with the highest economic growth and that cross-border trade with the United States will grow at an average annual rate of 6 percent. This will translate into an increase of approximately 110 million tons in cross-border trade between 2010 and 2020.

The study team also performed a detailed analysis of 18 multimodal corridors in Mexico. These corridors were identified considering the spatial concentration of population and employment, as well as the existing freight transportation network and facilities. The identified corridors were evaluated qualitatively and quantitatively using multi-attribute criteria.

One of the corridors traverses the Mexican Area of Influence. This corridor extends from Mazatlán to Matamoros and traverses five Mexican States: Sinaloa, Durango, Coahuila, Nuevo León, and Tamaulipas (see Figure 3.14). Table 3.15 summarizes the results of the qualitative assessment of the Mazatlán-Matamoros corridor.

Source: SCT[31]

Figure 3.14: Mazatlán-Matamoros

Table 3.15: Summary of Qualitative Evaluation for Mazatlán-Matamoros Corridor

Criterion		Qualitative Score
Demand (freight volume)	For multimodal development	Low
	For international traffic	Low
	For long-haul movements	Low
Value of the multimodal corridor	Domestic trade	Low
	International trade	Low
	Transshipment trade	Low
	Stimulation of regional growth	Average
Shortages in current service levels compared to transport users' requirement, which increases goods' delivery time	Interlinear railway problems for freight during long hauls	Problematic
	Railroad equipment	Not available
	Railroad infrastructure	Deficient
	Delays due to at-grade railroad crossings in urban areas	Problematic
	Delays due to at-grade highway crossings in urban areas	Not problematic
	Enough logistics companies operating in the corridor	Sufficient
	Customs procedures	Not problematic
Excessive logistical costs for shippers, affecting the competitiveness of industries in Mexico and increasing prices for consumers	Railway	Not competitive
	Highway and automotive transportation	Not competitive
	Port terminals (origin/destination)	Competitive
	Domestic terminals	Competitive
	Land terminals (origin/destination)	Competitive
Inadequate infrastructure capacity, resulting in bottlenecks	Terminals for freight handling at the origin	Sufficient
	Terminals for freight handling at the destination	Sufficient
	Domestic terminals	Sufficient
	Highway network	Sufficient
Safety deficits that limit exports by not being able to satisfy new requirements or safety standards	Security deficiencies in the railroad network	Not available
	Security deficiencies in the highway network	Not problematic

Source: SCT[31]

Table 3.15 shows that the Mazatlán-Matamoros corridor was rated low in terms of demand (freight volumes) for multimodal development, international traffic, and long-haul movements. In addition, the Mazatlán-Matamoros corridor was rated fairly low as a multimodal corridor for facilitating international and transshipment trade.

The qualitative assessment was supplemented with a quantitative assessment of the 18 identified corridors using multi-attribute criteria. In the quantitative assessment, the metric used to score each criterion ranged from 8 to 24. Based on this scale and the use of six criteria, total scores ranged from 48 to 144. Corridors that scored higher than 120 were prioritized for investments in the short term, those that scored between 100 and 120 were prioritized for investments in the medium term, and those that scored below 100 were prioritized for investment in the long term. Table 3.16 summarizes the outcome of the prioritization process. As the table shows, the Mazatlán-Matamoros corridor was prioritized for investments in the long term.

Table 3.16: Summary of Quantitative Evaluation for Corridors

Corridors	Criteria to Identify the Priority Corridors						
	Future Demand	Potential Increase in Rail Participation	Potential Increase in Container Usage	Potential for National Economic Development	Connectivity	Infrastructure/ Service Quality	Total
Mexicali-Guadalajara-México City	22	22	21	17	20	19	121
Manzanillo-Guadalajara-México City	23	22	22	19	20	18	124
Lázaro Cárdenas-México City	23	20	20	18	20	22	123
Manzanillo-Gómez Palacio-Monterrey-Ciudad Juárez	16	19	19	15	19	18	106
Monterrey-Altamira/Tampico	16	18	19	16	16	17	102
Lázaro Cárdenas-Querétaro-San Luis Potosí-Monterrey-Nuevo Laredo	22	22	23	22	21	22	132
Veracruz-Querétaro	15	17	20	15	17	21	105
Veracruz-México City	21	16	19	17	21	21	115
Salina Cruz-Coatzacoalcos	15	15	15	20	14	15	94

Corridors	Criteria to Identify the Priority Corridors						
	Future Demand	Potential Increase in Rail Participation	Potential Increase in Container Usage	Potential for National Economic Development	Connectivity	Infrastructure/ Service Quality	Total
Topolobampo-Chihuahua-Ojinaga	13	16	14	17	13	15	88
Guaymas-Nogales	19	17	18	19	17	17	107
Ensenada-Tijuana	13	9	12	17	12	16	79
Lázaro Cárdenas-México City-Veracruz	11	11	11	13	16	16	77
México City-Salina Cruz-Ciudad Hidalgo	11	11	8	19	11	8	67
Veracruz-Coatzacoalcos-Mérida	8	8	8	16	11	11	61
Altamira-San Luis Potosí-Manzanillo	13	11	11	11	13	13	72
Mazatlán-Matamoros	***8***	***8***	***11***	***11***	***11***	***11***	***59***
Salina Cruz-Mérida	8	8	8	16	8	8	56

Source: SCT[31]

Each member of the SCT committee[34] assigned a weight to each criterion. The assigned weights were subsequently averaged and used to calculate the average weight attributed to each criterion (see Table 3.17). These weights were applied to the results in Table 3.16 to calculate a score based on the importance of each criterion (see Table 3.18).

Table 3.17: Criteria Weights to Evaluate Corridors

Corridors	Criteria to Identify the Priority Corridors						
	Future Demand	Potential Increase in Rail Participation	Potential Increase in Container Usage	Potential for National Economic Development	Connectivity	Infrastructure/ Service Quality	Total
Average for the Committee	22%	17%	14%	16%	18%	14%	100%

Source: SCT[31]

Table 3.18: Summary of Quantitative Evaluation for Corridors (Weighted)

Corridors	Criteria to Identify the Priority Corridors						
	Future Demand	Potential Increase in Rail Participation	Potential Increase in Container Usage	Potential for National Economic Development	Connectivity	Infrastructure/ Service Quality	Total
Mexicali-Guadalajara-México City	4.80	3.70	2.95	2.55	3.55	2.75	20.30
Manzanillo-Guadalajara-México City	4.95	3.80	2.95	3.00	3.60	2.65	20.95
Lázaro Cárdenas-México City	4.95	3.45	2.75	2.85	3.60	3.20	20.80
Manzanillo-Gómez Palacio-Monterrey-Ciudad Juárez	3.25	3.30	2.60	2.40	3.35	2.55	17.45
Monterrey-Altamira/Tampico	3.65	2.85	2.65	2.50	2.85	2.50	17.00
Lázaro Cárdenas-Querétaro-San Luis Potosí-Monterrey-Nuevo Laredo	4.85	3.70	3.20	3.50	3.60	3.20	22.05
Veracruz-Querétaro	3.25	2.95	2.65	2.40	3.10	3.05	17.40
Veracruz-México City	4.70	2.75	2.50	2.60	3.75	3.05	19.35
Salina Cruz-Coatzacoalcos	3.25	2.50	2.10	3.15	2.60	2.30	15.90
Topolobampo-Chihuahua-Ojinaga	2.90	2.75	2.00	2.65	2.35	2.30	14.95
Guaymas-Nogales	4.05	2.75	2.50	3.10	3.10	2.45	17.95
Ensenada-Tijuana	2.75	1.50	1.55	2.70	2.20	2.30	13.00
Lázaro Cárdenas-México City-Veracruz	2.13	1.60	1.60	2.67	2.40	2.40	12.80

Corridors	Criteria to Identify the Priority Corridors						
	Future Demand	Potential Increase in Rail Participation	Potential Increase in Container Usage	Potential for National Economic Development	Connectivity	Infrastructure/ Service Quality	Total
México City-Salina Cruz-Ciudad Hidalgo	2.13	1.60	1.20	3.73	1.60	1.20	11.47
Veracruz-Coatzacoalcos-Mérida	1.60	1.20	1.20	3.20	1.60	1.60	10.40
Altamira-San Luis Potosí-Manzanillo	2.67	1.60	1.60	2.13	2.00	2.00	12.00
Mazatlán-Matamoros	***1.60***	***1.20***	***1.60***	***2.13***	***1.60***	***1.60***	***9.73***
Salina Cruz-Mérida	1.60	1.20	1.20	3.20	1.20	1.20	9.60

Source: SCT[31]

Table 3.18 shows that the Mazatlán-Matamoros corridor received the second lowest score largely because of very low scores for future demand, potential increase in rail participation, and potential for national economic development. As a result, the Mazatlán-Matamoros corridor was prioritized for investments in the long term.

3.5 Bi-national Trade Corridors

The study team identified two major trade corridors in the Lower Rio Grande Valley area (see Figure 3.15). The first of these is US 281 on the U.S. side and MEX 40 on the Mexico side. US 281 is a four-lane divided highway. A 13.5-mile segment of US 281, from the junction of FM 2812 in Edinburg to US 83 in Pharr, is designated as IH 69C.[17] MEX 40 is a two-lane undivided highway. However, as each highway approaches the U.S.-Mexico border, they have been upgraded to a four- or six-lane divided facility to accommodate the high traffic volumes typically experienced in the region. The other major trade corridor in the region includes US 77 on the U.S. side and MEX 101 on the Mexico side. Both of these highways represent rural highways that have partial access control. While US 77 is a divided highway with two lanes in either direction, MEX 101 is a four-lane highway with a paved median separating the opposing traffic directions. A 53.3-mile segment of US 77, from the junction of BU 77 north of Raymondville to just north of the U.S.-Mexico International Border Crossing Complex, is designated as IH 69E.

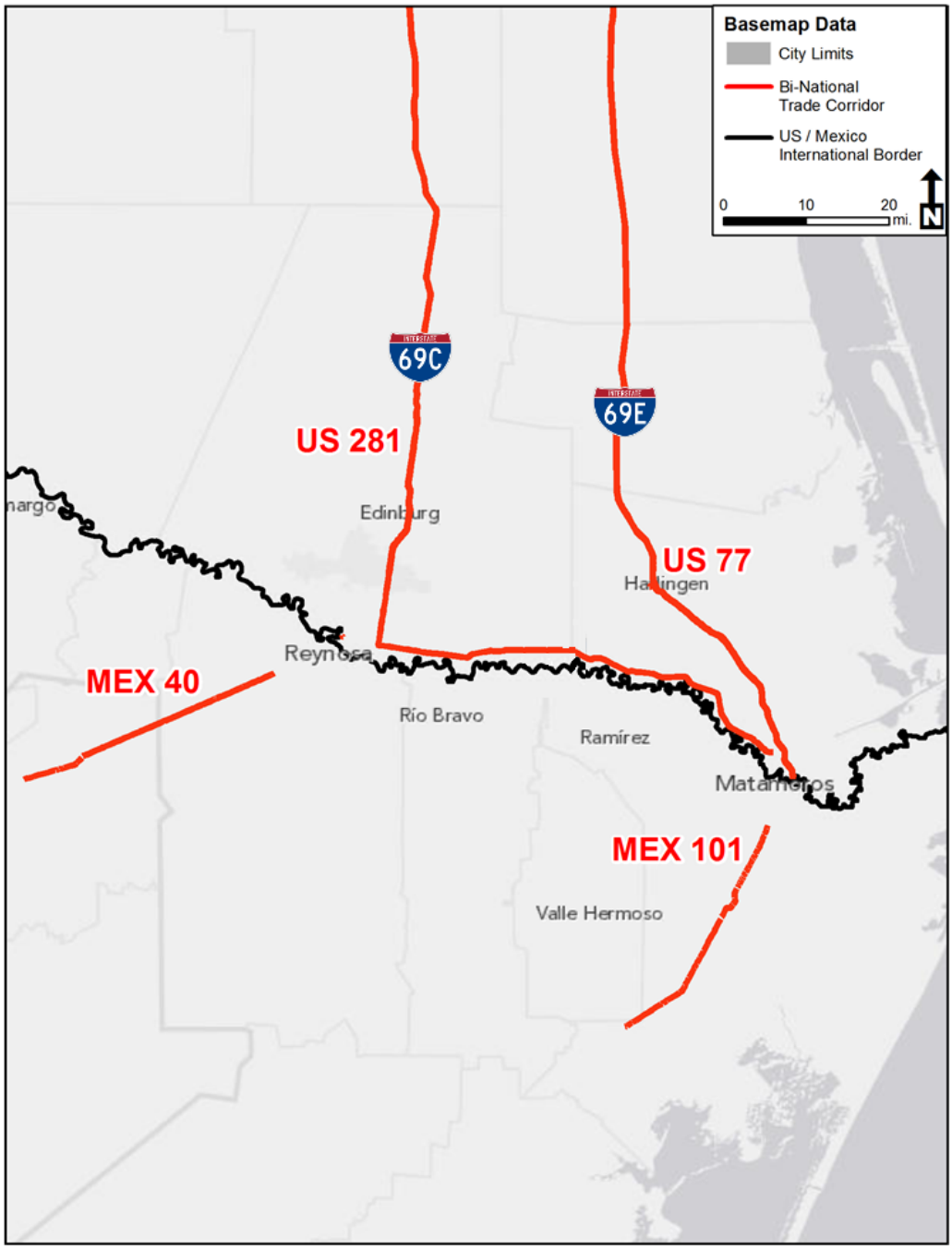


Figure 3.15: Binational Trade Corridors

3.6 Concluding Remarks

Between 2010 and 2030, the total population and total employment in the Area of Influence are anticipated to increase by approximately 43.2 percent and 51.9 percent, respectively. Total population in the Area of Influence is expected to increase from 2,612,769 in 2010 to 3,741,504 in 2030—an increase of 1,128,735 people. Total

employment in the Area of Influence is expected to increase from 1,115,023 in 2010 to 1,694,143 in 2030—an increase of 579,120 employment opportunities.

Given the major trade corridors traversing the study area and the anticipated increase in population and employment in the study area, the existing capacity of existing POEs and the transportation facilities serving these POEs might be strained in the future. Chapter 4 provides an overview of the current POEs and the transportation facilities serving these POEs.

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1 "The annual average growth rate, abbreviated as AAGR and more accurately known as the compound annual growth rate, shows an average value for the annual rate of change over a period of time (typically several years) allowing for the compound effect of growth. This rate facilitates comparisons of rates of change for periods of different lengths, for example, comparing annual, five-yearly and ten-yearly rates of change. This rate is calculated by taking the nth root of the rate of change (as a percentage) between the value at the beginning and end of the period, where n is the number of years between the beginning the two values." From European Commission, Glossary: Annual Average Growth Rate (AAGR), Statistics Explained, http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Glossary:Compound_annual_growth_rate (accessed June 2013).

2 Texas Department of State Health Services, Texas Population, 2005, http://www.dshs.state.tx.us/chs/popdat/ST2005.shtm (accessed June 2013).

3 Texas State Data Center, Texas Population Projections Program, http://txsdc.utsa.edu/Data/TPEPP/Projections/Index.aspx (accessed June 2013).

4 Texas Workforce Commission, TRACER, http://www.tracer2.com/ (accessed June 2013).

5 U.S. Department of Commerce Bureau of Economic Analysis, BEARFACTS, http://www.bea.gov/regional/bearfacts/action.cfm (accessed June 2013).

6 From 2005 to 2010, the county accounted for 6.3 percent of Texas's population increase.

7 TxDOT, District and County Statistics (DISCOS), http://www.txdot.gov/inside-txdot/division/finance/discos.html (accessed October 29, 2012).

8 Texas State Comptroller, Texas in Focus: South Texas—Infrastructure, http://www.window.state.tx.us/specialrpt/tif/southtexas/infrastructure.html (accessed October 29, 2012).

9 U.S. Department of Agriculture, 2007 Census of Agriculture, http://www.agcensus.usda.gov/Publications/2007/Online_Highlights/County_Profiles/Texas/ (accessed September 2012).

[10] U.S. Census Bureau, State and County QuickFacts, http://quickfacts.census.gov/ (accessed September 2012).

[11] BMPO, 2010–2035 Brownsville Metropolitan Transportation Plan, adopted December 9, 2009.

[12] BMPO, Transportation and Land Use Study, September 2009, http://content.lib.utah.edu/cdm/ref/collection/FHWA/id/2081 (accessed August 2013).

[13] A Future Land Use Plan for 2020 was also developed by the City of Harlingen based upon anticipated growth and known planned infrastructure improvements. This map is available in Harlingen's Vision 2020 Comprehensive Plan document.

[14] City of Harlingen, Harlingen's Vision 2020 Comprehensive Plan, Planning and Zoning Division, 2002, http://www.myharlingen.us/default.aspx?name=pz.comprehensivemaster (accessed August 2013).

[15] HCMPO, Vision Hidalgo County—Scenario Planning Study (2010), http://www.hcmpo.org/files/Studies/ScenarioPlanning.pdf (accessed August 2013).

[16] TxDOT, I-69 Segment Four and Five Committee Report and Recommendations, http://ftp.dot.state.tx.us/pub/txdot-info/pub_inv/committees/i69/seg45_final.pdf (accessed October 23, 2013).

[17] Texas Transportation Commission, Minute Order Number 113584, May 30, 2013.

[18] Alliance for I-69 Texas, I-69 System Segments Now Part of National Interstate Highway System, http://www.i69texasalliance.com/ (accessed May 2012).

[19] The American Main Street. US Highway 281 Texas, http://www.ushwy281.com/2010/01/us-highway-281-texas.html (accessed October 29, 2012).

[20] The Federal highway system in Mexico is denoted with the letters MEX.

[21] TexasEscapes.com, Route 77: The Padre Road, http://www.texasescapes.com/TRIPS/Route-77-The-Padre-Road.htm (accessed October 2012).

[22] TxDOT, US 77 from Kingsville to Driscoll Project, http://www.txdot.gov/business/partnerships/current-cda/us77-upgrade.html (accessed June 2012).

[23] A summary of the U.S. 77 Interstate Tolled Truck Lane Study was included in the Lower Rio Grande Valley and Laredo Region Freight Study. TxDOT, *Lower Rio Grande Valley and Laredo Region Freight Study*, HNTB, July 2011.

[24] CONAPO, http://www.conapo.gob.mx/ (accessed June 2013).

[25] INEGI, Anuario de Estadísticas por Entidad Federativa 2011, http://www.inegi.org.mx/ (accessed June 2013).

[26] CONASAMI, Salarios Mínimos, http://conasami.gob.mx/salarios_minimos.html (accessed August 2013).

[27] Municipality of Matamoros, Plan Municipal de Ordenamiento Territorial y Desarrollo Urbano—Matamoros, 2001, http://seduma.tamaulipas.gob.mx/wp-content/uploads/2011/11/Plan_municipal_matamoros.pdf (accessed August 2013).

[28] Municipality of Río Bravo, Plan Municipal de Ordenamiento Territorial y Desarrollo Urbano, 2001, http://seduma.tamaulipas.gob.mx/wp-content/uploads/2011/11/Plan_municipal_rio_bravo.pdf (accessed August 2013).

[29] Municipality of Reynosa, Plan Municipal de Ordenamiento Territorial y Desarrollo Urbano, 2001, http://seduma.tamaulipas.gob.mx/wp-content/uploads/2011/11/Plan_municipal_reynosa.pdf (accessed August 2013).

[30] Municipality of Reynosa, Plan Municipal de Ordenamiento Territorial y Desarrollo Urbano, (forthcoming), draft copy obtained through private correspondence on September 2012.

[31] SCT, 2010, www.sct.gob.mx/ (accessed June 2013).

[32] "The methodology developed during the study provides the SCT with a tool that can be used to prioritize multimodal corridors for future development based on pre-defined criteria and guide investments and actions needed to make the multimodal transportation system in Mexico more efficient." SCT, Mexico's Multimodal Corridor Master Plan, 2010, obtained through private correspondence in January 2011.

[33] Mexico has 31 States and one Federal district.

[34] The SCT committee was made up of officials from the following SCT divisions: Rail (three officials), Planning (one official), Ports (two officials), Freight (one official), and the Mexican Transportation Institute (one official).