



Economic Impacts of Increased U.S. Imports of Fresh Produce from Mexico by 2025

CNAS Report 2017-1
February 2017

Introduction

Produce imports from Mexico are a major source of economic activity in the Lower Rio Grande Valley of Texas. The United States imported \$12.04 billion of produce and products from Mexico during 2016, including fresh, frozen and processed fruits, vegetables, and nuts. About 98 percent of these imports entered the United States by land ports between Mexico and Texas, New Mexico, Arizona, and California. When considering only fresh fruits and vegetables, which is nearly ninety percent of the total, imports totaled \$10.67 billion. These imports were shipped in 463,755 forty-thousand pound truckloads. About 48 percent of U.S. fresh fruit and vegetable imports from Mexico worth \$5.4 billion entered through Texas land ports, arriving in 221,662 truckloads.

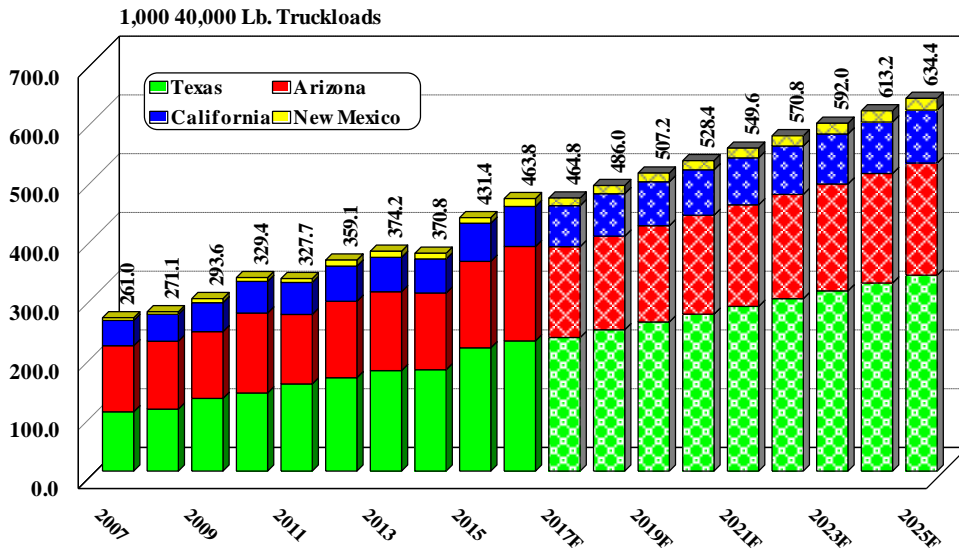
Baseline Projection

Over the next five to eight years, produce imports from Mexico are expected to grow with the majority of this growth coming into the United States via Texas. In an effort to quantify how much U.S. produce imports from Mexico are expected to grow by 2025, a linear trend forecasting approach was used to estimate the volume and flow of imports based upon trends that were present from 2007-2016. Linear trend analysis was conducted in order to develop a baseline estimate. This is a conservative approach because no significant changes are considered; therefore, it represents a baseline for growth in imports from Mexico and assumes that the future will be reflective of the past. Further, it is assumed that the mix of imports will remain relatively stable over the time period.

Based upon the assumptions above, it is estimated that U.S. fresh produce imports from Mexico via truck will increase to 634,427 truckloads by 2025, or 37.5 percent above 2016 levels (Figure 1). Most of this growth will occur through Texas ports with imports expected to grow by 50 percent to 333,347 truckloads. By 2025, Texas is estimated to account for 52.5 percent of all U.S. produce imports from Mexico as compared to 47.8 percent in 2016. This growth in imports has implications throughout the border economy in general and the Texas economy in particular.

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Figure 1. U.S. Imports of Fresh Produce from Mexico by Truck Baseline, 2007-2025F



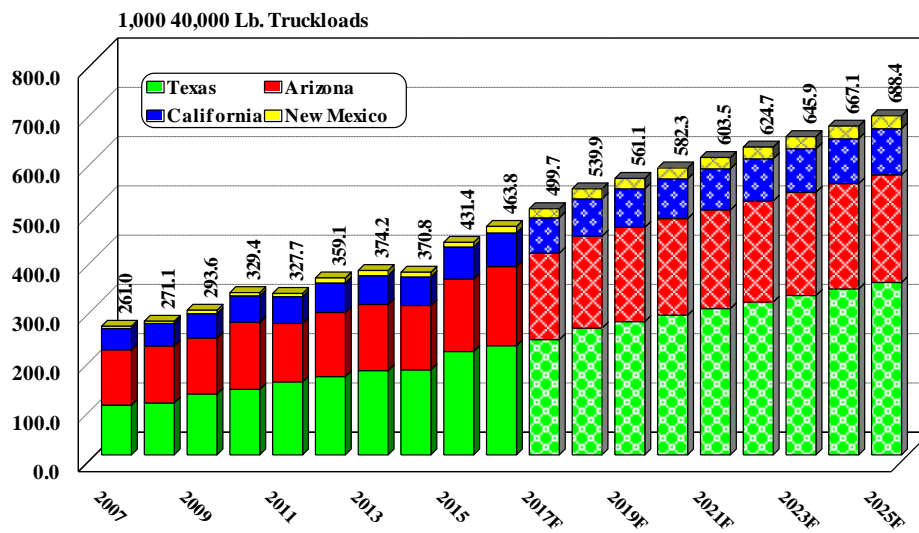
Source: Agricultural Marketing Service, USDA and Department of Agricultural Economics, Texas A&M University System
2016-2023 Forecast based on 2007-2015 Model

Additional Information Considered

Following the development of the baseline forecast, additional factors were included and information was acquired from industry experts in an effort to develop a more accurate forecast of U.S. produce imports from Mexico. One important factor is U.S. interest rates are expected to rise over this time period, causing the dollar to appreciate which will spur even more imports. Another important factor for the increase in fresh produce imports through Texas is the improvement of Mexican Federal Highway 40 between Mazatlan and Reynosa, particularly the Mazatlan to Durango portion with the construction of the Baluarte bridge and 114 additional bridges and 61 tunnels in that portion of the highway. The new portion of the highway covers more than 140 miles and replaced the existing Devil’s backbone road built in the 1940s. These infrastructure improvements could reduce transportation time by six or more hours between Mazatlan and the LRGV and shave \$500 to \$1,500 off of truck transportation costs per load.

Incorporating this additional information together with previous input from produce industry experts, shippers and brokers, a revised forecast was developed as shown in Figure 2. This forecast assumes that the 2017 shipment growth rate for each border state is the same as each grew in 2016, followed by a 2018 growth rate equal to that of each state’s 2014-2016 average growth. For 2019-2025, each state will return to their respective 2007-2016 trend growth. This set of assumptions allows for more recent trends to drive short and medium-term projections and historical trends to apply for long-term estimates.

Figure 2. U.S. Imports of Fresh Produce from Mexico following Industry Input, 2007-2025F



Source: Agricultural Marketing Service, USDA and Department of Agricultural Economics, Texas A&M University System
2017-2025 Forecast based on 2007-2016 Model and Previous Industry Input

The results of this forecast show overall fresh fruit and vegetable imports from Mexico growing to 688,350 truckloads by 2025, or a 49.2 percent increase over 2016. Texas ports, mainly in the Lower Rio Grande Valley, will handle nearly 51 percent of these imports at 349,881 truckloads. While this is 58 percent more than 2016 levels for Texas, the estimate is justified in large part due to higher recent growth in imports through Texas due to Mexican highway, bridge and cold storage improvements. These improvements will not only attract produce that was previously shipped through western U.S. destinations, but may also attract some imports from Central America, South America, and possibly Asia.

While these estimates are based upon the best available current information and solid assumptions regarding future trends, it is likely that actual numbers will be slightly different than the forecast. For instance, Arizona imports are expected to grow much slower than Texas when considering the combination of decreases in truck crossings due to Mexican Highway 40 and increased demand in the western United States. However, it is possible that either factor is more dominant, leading to either a higher or lower trend during 2017-2018.

Estimated Economic Impacts

When considering the entire U.S./Mexico border region of Texas, New Mexico, Arizona and California, there was a minimum of \$516.2 million of direct economic output attributed to produce imports from Mexico during 2016 (Table 1). By 2025, this is expected to grow to \$766.2 million with the leading sectors where import-related output occurred were warehousing at \$268.5 million and truck transportation at \$206.5 million, followed by sorting, grading and packing (\$131.2 million), customs brokering

Table 1. Summary of Economic Activity from U.S. Produce Imports from Mexico over Land Borders, 2016 and 2025 Forecast with Industry Input

	TX/NM/AZ/CA		Texas	
	2016	2025F	2016	2025F
Total Truckloads	463,755	688,350	221,662	349,956
Direct Economic Output	<i>Million Dollars</i>			
Warehousing	\$180.9	\$268.5	\$86.4	\$136.5
Truck Transportation	\$139.1	\$206.5	\$66.5	\$105.0
Sorting, Grading and Packing	\$88.4	\$131.2	\$49.5	\$78.2
Customs Brokering	\$69.6	\$103.3	\$33.2	\$52.5
Miscellaneous Border Services	\$38.3	\$56.8	\$18.3	\$28.9
Total Direct Economic Output	\$516.2	\$766.2	\$254.0	\$401.1
Total Supporting Economic Output	\$574.9	\$853.4	\$249.2	\$393.4
Total Economic Output	\$1,091.1	\$1,619.6	\$503.2	\$794.4
Total Jobs Supporting Produce Imports	8,921	13,241	4,660	7,357

(\$103.3 million), and miscellaneous border services (\$56.8 million). This direct output will require an additional \$853.4 million in economic activity from supporting industries for a total economic impact of \$1.62 billion. Leading supporting industries include real estate with \$119.3 million, business services (\$93.5 million), energy (\$89.1), financial services (\$76.9 million), health care (\$60.4 million), wholesaling (\$39.6 million), retail (\$34.6 million), food and drinking businesses (\$33.1 million), and other transportation (\$30.8 million).

Total employment in the four-state region associated with handling fresh produce imports in 2025 is estimated at 13,241 jobs. Most jobs were in sorting, grading and packing, 2,552 jobs, followed by warehousing with 2,358 jobs, 1,750 jobs in the customs brokering sector, truck transportation with 1,373 jobs, and 408 jobs in miscellaneous border services. Supporting industries with significant job impacts include business services with 882 jobs, health care (593 jobs), food and drink establishments (506 jobs), real estate (393 jobs), financial services (390 jobs), and retail (381 jobs).

Economic impacts of produce imports on Texas are also important. Direct economic activity attributed to the produce import industry was \$254.0 million during 2016, requiring an additional \$249.2 million in economic activity from supporting industries for a total economic impact of \$503.2 million. By 2025, this is expected to grow to \$401.1 million in direct activity and \$393.4 million in supporting activity for a total of \$794.4 million in economic activity throughout the Texas economy. Direct output

will be led by warehousing at \$136.5 million and followed by the truck transportation (\$105.0 million), sorting, grading and packing (\$78.2 million), customs brokering (\$52.5 million), and miscellaneous border services (\$28.9 million). Real estate (\$51.6 million), energy (\$45.6 million), business services (\$43.5 million), financial services (\$40.8 million), and healthcare (\$28.1 million) will be the leading supporting industries in terms of output.

About 7,357 jobs will be required throughout the Texas economy to support these import operations during 2025. Sorting, grading and packing will require 2,067 jobs, followed by warehousing (1,095 jobs), customs broker services (925 jobs), truck transportation (697 jobs), and miscellaneous border services (235 jobs). Business services with 428 jobs will be the leading supporting sector in terms of employment, followed by health care (267 jobs), food and drink establishments (251 jobs), financial services (218 jobs), real estate (188 jobs), and retail (186 jobs).

Conclusion

The economic impacts of U.S. produce imports from Mexico on southwestern land ports of entry are substantial, expected to total \$1.62 billion by 2025 as these imports continue to grow over the next five to seven years. Additional employment will occur as 13,241 jobs will be required to support this increase in economic activity. In Texas alone, the total economic activity to support the additional imports will be \$794.4 million, along with 7,357 jobs. Any delays, disruptions or related barriers to entry of fresh produce causes a ripple effect in terms of economic and employment losses across a wide spectrum of regional economies.



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Table 2. U.S. Produce Imports from Mexico over land borders, 40,000# Equivalent Loads

BASELINE: Linear Trend Projection for each state and total United States

	Texas	Arizona	California	New Mexico	Total	Texas as % of Total	Texas Growth Rate
2007	101,025	112,327	43,264	4,378	260,992	38.7%	-----
2008	105,522	115,609	45,713	4,304	271,147	38.9%	4.5%
2009	123,777	113,495	49,417	6,938	293,627	42.2%	17.3%
2010	133,039	136,031	53,849	6,462	329,381	40.4%	7.5%
2011	148,331	118,389	54,479	6,496	327,694	45.3%	11.5%
2012	158,968	130,019	60,006	10,154	359,147	44.3%	7.2%
2013	171,064	134,168	58,638	10,355	374,224	45.7%	7.6%
2014	172,648	130,549	57,989	9,594	370,779	46.6%	0.9%
2015	209,817	147,191	64,882	9,484	431,373	48.6%	21.5%
2016	221,662	160,602	68,237	13,254	463,755	47.8%	5.6%
2017	227,414	154,733	69,704	12,967	464,818	48.9%	2.6%
2018	240,656	159,260	72,259	13,844	486,019	49.5%	5.8%
2019	253,897	163,786	74,815	14,722	507,220	50.1%	5.5%
2020	267,139	168,313	77,371	15,599	528,422	50.6%	5.2%
2021	280,381	172,839	79,927	16,476	549,623	51.0%	5.0%
2022	293,622	177,366	82,482	17,354	570,824	51.4%	4.7%
2023	306,864	181,892	85,038	18,231	592,025	51.8%	4.5%
2024	320,106	186,419	87,594	19,108	613,226	52.2%	4.3%
2025	333,347	190,945	90,149	19,986	634,427	52.5%	4.1%

2017-2025 estimates are forecast based on 2007-2016 data.

Source: USDA/AMS Market News Portal – Fruits and Vegetables

	Texas	Arizona	California	New Mexico	Total
Growth from '16	50.4%	18.9%	32.1%	50.8%	36.8%

Table 3. U.S. Produce Imports from Mexico over land borders, 40,000# Equivalent Loads

Assumptions: Industry Input and Other Factors Considered, 2017 shipment growth rate for each border state is the same as each grew in 2016, followed by a 2018 growth rate equal to that of each state’s 2014-2016 average growth. For 2019-2025, each state will return to their respective 2007-2016 trend growth.

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2016	221,662	160,602	68,237	13,254	463,755	47.8%	5.6%
2017	234,176	175,236	71,765	18,522	499,700	46.9%	9.9%
2018	257,264	186,745	75,681	20,251	539,942	47.6%	9.9%
2019	270,506	191,271	78,237	21,128	561,143	48.2%	4.9%
2020	283,748	195,798	80,793	22,006	582,344	48.7%	4.7%
2021	296,989	200,324	83,349	22,883	603,545	49.2%	4.5%
2022	310,231	204,851	85,904	23,760	624,747	49.7%	4.3%
2023	323,473	209,377	88,460	24,638	645,948	50.1%	4.1%
2024	336,714	213,904	91,016	25,515	667,149	50.5%	4.0%
2025	349,956	218,430	93,572	26,392	688,350	50.8%	3.8%

2017-2025 estimates are forecast based on 2007-2016 data and industry input.

Source: USDA/AMS Market News Portal – Fruits and Vegetables.

	Texas	Arizona	California	New Mexico	Total
Growth from '16	62.5%	33.3%	37.4%	65.9%	48.4%