

# Economic Impacts of Increased U.S. Imports of Fresh Produce from Mexico by 2020

## CNAS Issue Brief 2013-04

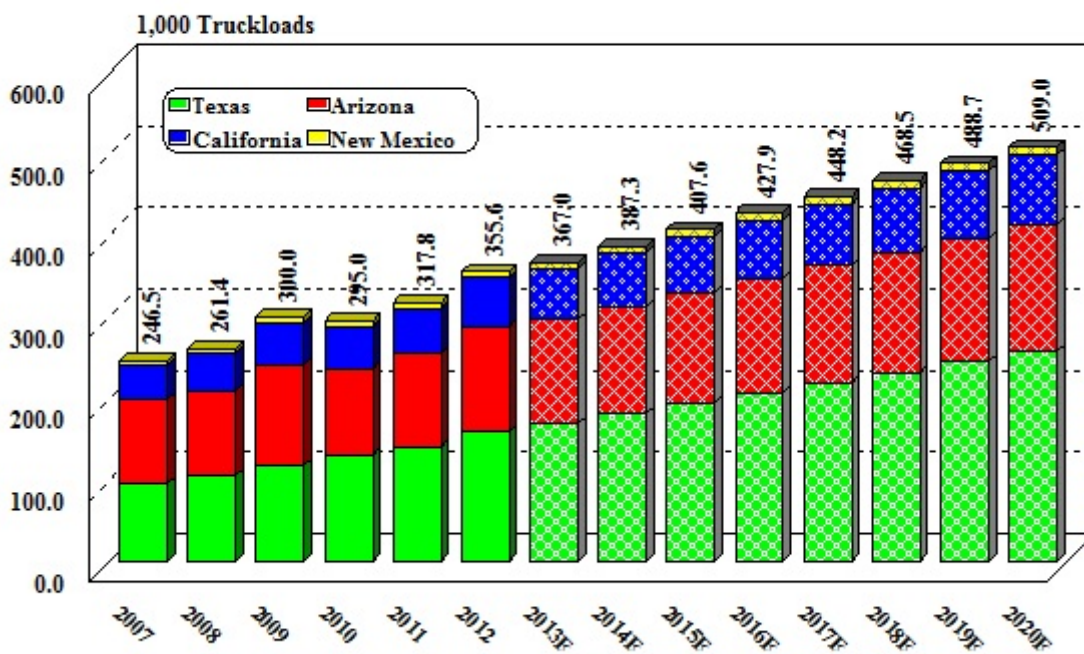
September 2013

Produce imports from Mexico are a major source of economic activity in the Lower Rio Grande Valley of Texas. The U.S. imported \$7.78 billion of fresh and frozen produce, including fruits, vegetables, and nuts, from Mexico during 2012, with more than 98 percent entering the United States by land ports between Mexico and Texas, New Mexico, Arizona, and California. When considering only fresh fruits and vegetables, which is more than ninety percent of the total, imports totaled \$7.65 billion. These imports were shipped in 355,638 forty-thousand pound truckloads. About 45 percent of U.S. fresh fruit and vegetable imports worth \$3.44 billion entered through Texas land ports, which arrived in 158,968 truckloads.

Over the next five to seven 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 2020, a linear trend forecasting approach was used to estimate the volume and flow of imports based upon trends that were present from 2007-2012. 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. produce imports from Mexico via truck will increase to 468,452 truckloads, or nearly 32 percent above 2012 levels. (figure 1) Most of this growth will occur through Texas ports with imports expected to grow by 62 percent to 257,534 truckloads.

**Figure 1. U.S. Imports of Fresh Produce from Mexico Baseline, 2007-2020F**



Source: Agricultural Marketing Service, USDA and Department of Agricultural Economics, Texas A&M University System

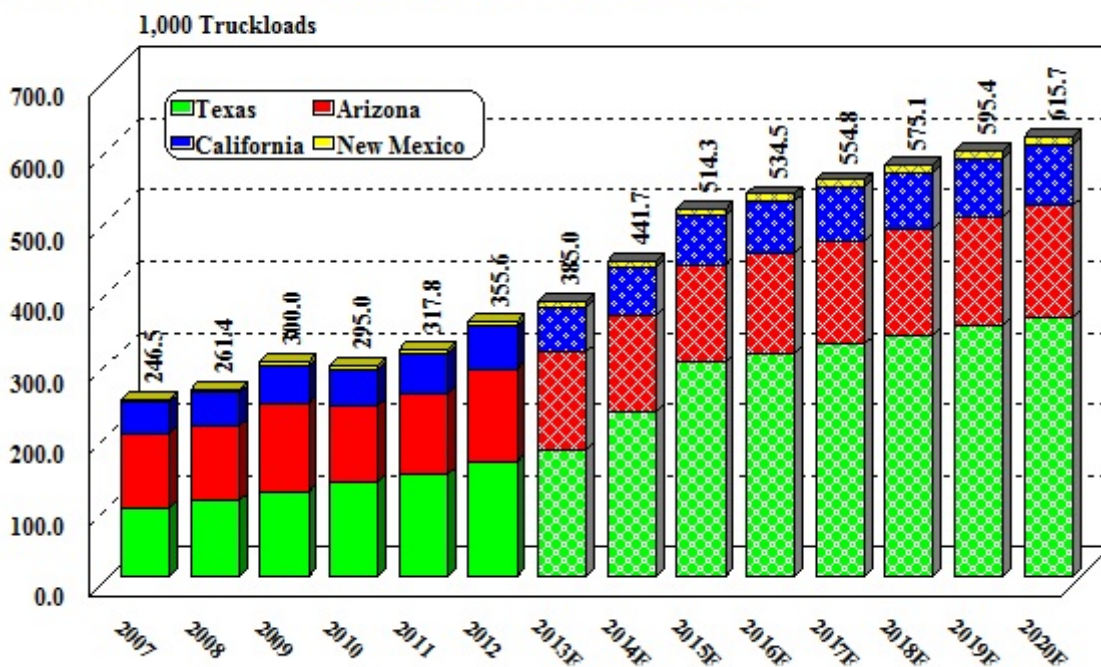
By 2020, Texas is estimated to account for slightly more than half of all U.S. produce imports from Mexico as compared to 45 percent in 2012. This growth in imports has implications throughout the border economy in general and the Texas economy in particular.

### Additional Information Considered

Following the development of the baseline forecast, additional factors were included and information was acquired from industry expert focus groups 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 is the improvement to 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 the Mazatlan to Durango portion of the highway. This new portion of the highway will cover more than 140 miles and will replace the existing Devil's Backbone road built in 1940s. These infrastructure improvements are expected to reduce transportation time by six or more hours between Mazatlan and the Lower Rio Grande Valley and shave \$500 to \$1,500 off of truck transportation costs per load. Finally, actual import data through mid-August 2013 revealed that year-to-date total imports compared to 2012 are up overall by 13.8 percent, with Texas up by 26.2 percent, which is more than expected, and Arizona up by 4.4 percent as opposed to slightly dropping.

Incorporating this additional information together with input from industry experts from U.S. shippers and brokers and Mexican exporters, a revised forecast was developed as shown in figure 2. This forecast incorporates a 30 percent growth rate for Texas imports for 2014 and 2015 before returning to the previous trend, Arizona staying flat for 2014 and 2015 before returning to previously forecast growth rate, New Mexico growing slightly above their baseline forecast, and California experiencing no changes from the baseline.

**Figure 2. U.S. Imports of Fresh Produce from Mexico following Industry Input, 2007-2020F**



Source: Agricultural Marketing Service, USDA and Department of Agricultural Economics, Texas A&M University System

The results of this forecast show overall fruit and vegetable imports from Mexico growing to 615,672 truckloads by 2020, or a 73.1 percent increase over 2012. Texas ports, mainly in the Lower Rio Grande Valley, will handle nearly 59 percent of these imports at 362,274 truckloads. This is a more than double 2012 levels for Texas; however, this estimate is justified in large part due to Mexican highway, bridge and cold storage improvements which will not only attract produce that was previously shipped through Western U.S. destinations, but will likely 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 stay flat for 2014 and 2015 when considering the combination of decreases in truck crossings due to the new Mexican highway and increased demand in the western United States. However, it is possible that either factor is more dominant, leading to either a slight downward or upward trend during those two years.

### **Estimated Economic Impacts**

When considering the entire U.S./Mexico border region of Texas, New Mexico, Arizona and California, there was a minimum of \$291.8 million of direct economic output attributed to produce imports from Mexico during 2012. (table 1) By 2020, this is expected to grow to \$505.1 million with the leading sectors where import-related output occurred were truck transportation and warehousing (\$153.9 million each), followed by sorting, grading and packing (\$104.9 million) and customs brokering (\$92.4 million). This direct output will require an additional \$562.5 million in economic activity from supporting industries for a total economic impact of \$1.07 billion. Leading supporting industries include real estate with \$80.0 million, business services (\$57.6 million), financial services (\$54.6 million), health care (\$46.2 million), retail (\$32.6 million), wholesaling (\$26.1 million), food and drinking businesses (\$23.6 million), other transportation (\$15.4 million), and food processing (\$15.2 million).

Total employment in the four-state region associated with handling fresh produce imports in 2020 is estimated at 10,381 jobs. Most jobs were in sorting, grading and packing, 3,247 jobs, followed by warehousing with 1,727 jobs, truck transportation with 1,137 jobs, and 790 jobs in the customs brokering sector. Supporting industries with significant job impacts include business services with 588 jobs, health care (446 jobs), retail (396 jobs), and food and drink establishments (362 jobs).

Economic impacts of produce imports on Texas are also important. Direct economic activity attributed to the produce import industry was \$136.9 million during 2012, requiring an additional \$148.6 million in economic activity from supporting industries for a total economic impact of \$285.5 million. By 2020, this is expected to grow to \$312.0 million in direct activity and \$338.7 million in supporting activity for a total of \$650.7 million in economic activity throughout the Texas economy. Direct output will be led by the truck transportation and warehousing sectors (\$90.6 million each), followed by sorting, grading and packing (\$76.5 million) and customs brokers (\$54.3 million). Real estate (\$46.3 million), financial services (\$45.0 million), business services (\$37.8 million) and healthcare (\$32.3 million) will be the leading supporting industries in terms of output.

About 6,920 jobs will be required throughout the Texas economy to support these import operations. Sorting, grading and packing required, 2,086 jobs, followed by warehousing, 1,087 jobs, truck transportation, 746 jobs, and customs broker services with 450 jobs. Business services, with 456 jobs,

health care with 323 jobs, food and drink establishments with 255 jobs, and retail with 251 jobs are the leading supporting sectors in terms of employment.

**Table 1. Summary of Economic Activity from U.S. Produce Imports from Mexico over Land Borders, 2012 and 2020 Forecast with Industry Input**

	Texas		TX/NM/AZ/CA	
	2012	2020F	2012	2020F
Total Truckloads	158,968	362,274	355,638	615,672
Direct Economic Output	<i>Million Dollars</i>			
Sorting, Grading and Packing	\$33.6	\$76.5	\$60.6	\$104.9
Truck Transportation	\$39.7	\$90.6	\$88.9	\$153.9
Customs Brokers	\$23.8	\$54.3	\$53.3	\$92.4
Warehousing	\$39.7	\$90.6	\$88.9	\$153.9
Total Direct Economic Output	\$136.9	\$312.0	\$291.8	\$505.1
Total Supporting Economic Output	\$148.6	\$338.7	\$324.9	\$562.5
Total Economic Output	\$285.5	\$650.7	\$616.7	\$1,067.6
Total Jobs Supporting Produce Imports	3,037	6,920	5,997	10,381

## Conclusion

The economic impacts of U.S. produce imports from Mexico on southwestern land ports of entry are substantial, expected to total \$1.07 billion by 2020 as these imports continue to grow over the next five to seven years. Additional employment will occur as 10,381 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 \$650.7 million, along with 6,920 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.



**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*

	<b>Texas</b>	<b>Arizona</b>	<b>California</b>	<b>New Mexico</b>	<b>Total</b>	<b>Texas as % of Total</b>	<b>Texas Growth Rate</b>
2007	94,947	103,870	43,242	4,478	246,537	38.5%	
2008	104,659	104,252	47,366	5,085	261,362	40.0%	10.2%
2009	116,940	123,888	52,487	6,650	299,965	39.0%	11.7%
2010	131,023	105,911	52,097	5,956	294,987	44.4%	12.0%
2011	140,989	113,822	56,371	6,638	317,820	44.4%	7.6%
2012	158,964	130,019	60,006	6,646	355,635	44.7%	12.7%
2013	168,903	127,775	62,973	7,389	367,040	46.0%	6.3%
2014	181,564	131,817	66,128	7,812	387,322	46.9%	7.5%
2015	194,226	135,859	69,284	8,235	407,605	47.7%	7.0%
2016	206,888	139,901	72,439	8,658	427,887	48.4%	6.5%
2017	219,549	143,944	75,595	9,081	448,169	49.0%	6.1%
2018	232,211	147,986	78,751	9,504	468,452	49.6%	5.8%
2019	244,873	152,028	81,906	9,927	488,734	50.1%	5.5%
2020	257,534	156,070	85,062	10,350	509,017	50.6%	5.2%

2013-2020 estimates are forecast based on 2007-2012 data.

*Source: USDA/AMS Daily Movement Report, Various Issues, and 2012 Update*

	<b>Texas</b>	<b>Arizona</b>	<b>California</b>	<b>New Mexico</b>	<b>Total</b>
<b>Growth from '12</b>	<b>62.0%</b>	<b>20.0%</b>	<b>41.8%</b>	<b>55.7%</b>	<b>43.1%</b>

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

*Assumptions: Industry Input and Other Factors Considered, including Accounts for actual shipments through August 2013, then applies a 30% Jump in TX in 2014 & 2015 relative to original trend, then return to previous growth rate, AZ flat for 2014 & 2015 before returning to previous trend, and the same previous growth rate for CA and NM for all years beginning in 2014.*

	Texas	Arizona	California	New Mexico	Total	Texas as % of Total	Texas Growth Rate
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2012	158,964	130,019	60,006	6,646	355,635	44.7%	12.7%
2013	176,903	135,775	62,973	9,389	385,040	45.9%	11.3%
2014	229,974	135,775	66,128	9,812	441,689	52.1%	30.0%
2015	298,966	135,775	69,284	10,235	514,260	58.1%	30.0%
2016	311,627	139,817	72,439	10,658	534,542	58.3%	4.2%
2017	324,289	143,859	75,595	11,081	554,825	58.4%	4.1%
2018	336,951	147,901	78,751	11,504	575,107	58.6%	3.9%
2019	349,612	151,944	81,906	11,927	595,390	58.7%	3.8%
2020	362,274	155,986	85,062	12,350	615,672	58.8%	3.6%

2013-2020 estimates are forecast based on 2007-2012 data and additional information.

Source: USDA/AMS Daily Movement Report, Various Issues, and 2012 Update

	Texas	Arizona	California	New Mexico	Total
<b>Growth from '12</b>	<b>127.9%</b>	<b>20.0%</b>	<b>41.8%</b>	<b>85.8%</b>	<b>73.1%</b>