

**Extending the Border Zone to the Entire State of Arizona:
Estimated Expenditures and Economic Impact Simulations, 2013-2016**

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Executive Summary

- Every year, thousands of frequent, low-risk, short-term visitors travel from Mexico into Arizona to conduct business, visit with family and friends, or shop at local stores—spending billions of dollars. Although these visitors have been pre-cleared through thorough background checks for frequent travel into the U.S., their U.S.-issued border crossing cards (BCCs) limit their travel in Arizona to 75 miles entering through Arizona’s land ports of entry—allowing visitors to travel about as far as the city of Tucson, with the exception of a 25-mile limit for visitors entering through the San Luis port of entry (Yuma region).
- A resolution of support to extend the border zone from its current 75-mile zone to the entire state and to streamline the Mexican visa process at the land ports of entry is currently being supported by regional planning agencies¹ throughout Arizona, including the Maricopa Association of Governments (MAG), as well as the Intertribal Council of Arizona and the city of Nogales, Arizona. Extending the zone for the BCC requires an administrative action by the U.S. Department of Homeland Security.
- The supporters of the proposal questioned what could happen if these legal visitors could bring their tourism dollars into all of Arizona, where they could go to shopping centers, attend Spring Training baseball games, or travel all the way up to Flagstaff or the Grand Canyon where they could spend more dollars.
- In 2015, MAG requested that the UA conduct an economic impact analysis of Mexican spending resulting from extending the border zone to the entire state of Arizona. Since the late 1970s, the University of Arizona (UA) has conducted four extensive research studies that assess direct spending by Mexican visitors and estimate their total economic impact on Arizona. The last Mexican visitors study prior to this study was conducted in 2007-2008.
- This report outlines calculations of baseline expenditures of Mexican visitors to Arizona from 2013 to 2016, and provides “what if” scenarios of the effect of extending the border zone statewide. The “what if” scenarios include 1) An increase in all border crossers² by three percent; 2) an increase in passenger crossers³ by three percent; and 3) increases of five percent, 10 percent and 15 percent in the number of Mexican travelers⁴ traveling north of the existing border zone. The UA utilized IMPLAN, a nationally recognized impact analysis model to estimate the economic impacts related to these scenarios.

¹ Central Arizona Governments (CAG), Flagstaff Metropolitan Planning Organization (FMPO), Pima Association of Governments (PAG), Southeastern Arizona Governments Organization (SEAGO), Western Arizona Council of Governments (WACOG) and Yuma Metropolitan Planning Organization (YMPO).

² Refers to data provided by the U.S. Customs and Border Protection of all non-U.S. Citizens (representing Mexican citizens) crossing legally into Arizona through its southern ports of entry either by foot, in personal-owned vehicles, in buses, train, or in small private aircrafts. The percentage of non-U.S. Citizens to total (U.S. and non-U.S. Citizens) border crossings is assumed unchanged since the 2008 study. Arizona’s southern ports of entry include Douglas, Lukeville, Naco, Nogales (international airport, and Mariposa and DeConcini gateways), San Luis (commercial and passenger gateways), Sasabe, and Lukeville.

³ Mexican citizens crossing legally into Arizona through its six land ports of entry in personal-owned vehicles, and buses.

⁴ Mexican citizens crossing legally into Arizona through its air and land ports of entry.

- The analysis used data and detailed characteristics of Mexican visitors and their spending obtained in a 2007-2008 Mexican visitors study conducted by the UA for the Arizona Office of Tourism. The first task was to build a model based on the 2007-08 survey to accurately estimate travel parties⁵ and expenditures, by port of entry and by destination-county; as a result, initial 2013 estimates of expenditures, by port of entry, and by destination-county, were made.
- It can be reasonably assumed that spending increased in proportion to increases in per capita income⁶ in Mexico; Short-term trends were used to “project” border crossers for 2014 - 2016, by port of entry by mode, based on the growth rates in passenger crossers numbers from their trough to current levels for each port of entry.
- Total 2013 border crossers to Arizona are 27.4 percent below the 2007-08 levels. Strong recent trends in passenger crossers, particularly through the ports of San Luis and Nogales, result in a projected average annual compounded growth rate for border crossers of almost 9 percent between 2013 and 2016.
- The total number of travel parties fell by almost 31 percent between 2007-08 and 2013, more than the reduction in all border crossers. This is because the number of pedestrian crossers fell dramatically, particularly in Nogales, and pedestrians have a smaller travel party size. Therefore, the 44 percent fall in pedestrian crossers translates into a decrease in travel parties that is larger than the decrease in total border crossers. Annual spending of Mexican visitors to Arizona declined to \$2.257 billion in 2013 - approximately \$431 million lower than the 2007-2008 levels, due to the recession and effects of heightened travel and border security measures.
- Based on a 9 percent projected annual increase in passenger crossers and the small assumed 1.74 percent annual increase in per party expenditures, estimated total expenditures grew 6.9 percent annually from 2013 to 2016. The total direct and indirect jobs impact of these estimated expenditures were 23,076 in 2013, and 25,064, 27,257, and 29,677 in 2014-2016.
- The projected baseline expenditures for 2014, 2015 and 2016 were used to assess the economic impacts of the “what if” scenarios of extending the border zone statewide.
- Extending the border zone will affect more than 1 million Mexican visitors who have been issued a BCC over the last 10 years in Nogales and Hermosillo, the two closest cities to Arizona located in the state of Sonora. This group represents a significantly large population who could positively impact Arizona’s economy. Nearly 1.5 million of the 1.7 million visa applications adjudicated at the U.S. State Department’s consulates and embassies in Mexico in fiscal year 2013 were for BCCs⁷.

⁵ Group of people traveling together on a trip under a single or pooled budget. Example is a family of two parents and three children.

⁶ Measured as annual compounded average growth in per capita Mexican Gross Domestic Product (1.74 percent), a proxy for income growth in Mexico.

⁷ U.S. State Department Hearing on Border Security – 2013.

- The proposed change would allow pre-cleared Mexican visitors holding a BCC, which currently acts as a visa document, to travel beyond Tucson without having to fill out an additional paper I-94 form and provide flexibility to spend their tourist dollars throughout Arizona, invigorating tourism-sensitive economies in both rural and urban regions of the state. Analysis of border crossings during the 1999 border zone extension in Arizona from 25-mile to 75-mile indicates an increase of under 3.9 percent in border crossings between 1998 and 1999 (year prior to the extension) compared to between 1999 and 2000 (the year following the change).
- The most recent border zone expansion occurred in 2013 in the state of New Mexico, which extended its border zone from 25 miles to 55 miles. Analysis of border crossings right after the extension indicates crossings (including through the El Paso port of entry) were 4.2 percent higher during the year after the border expansion than the year prior to the border expansion.
- Three “what if” scenarios were run: an increase in all border crossers by 3 percent; an increase in passenger crossers by 3 percent; and increases of 5 percent, 10 percent and 15 percent in the number of Mexican visitors traveling to the north of the existing border zone.
- Overall this report concludes that extending the border zone to the entire state of Arizona could:
 - **Generate up to \$181 million in additional estimated spending and 2,179 additional jobs in 2016⁸**
 - **Bring the total projected spending of Mexican visitors to Arizona to nearly \$3.1 billion and a total jobs impact of 31,856.** These numbers are expected to move with the Mexican economy.

Summary table: Total effects of potential spending by Mexican visitors due to proposed border zone extension

Baseline impacts of 2016 projections of Mexican visitors spending		
	<i>Spending baseline projections</i>	2,907,340,000
	<i>Expected jobs created from baseline spending</i>	29,677
Additional spending by Mexican visitors due to proposed border zone expansion - best case scenario, 2016		
	<i>A 3 percent increase in total border crossers</i>	75,350,000
	<i>A 15 percent increase in passenger crossers traveling farther north</i>	105,870,000
	Total potential spending:	181,220,000
Jobs effects of additional spending:		
	<i>A 3 percent increase in total border crossers</i>	769
	<i>A 15 percent increase in passenger crossers traveling farther north</i>	1,410
	Total Jobs effect:	2,179
Total effect of potential spending by Mexican visitors due to proposed border zone extension, 2016		
	<i>Spending - baseline projections and additional spending</i>	3,088,560,000
	<i>Expected jobs created from baseline projections and additional spending</i>	31,856

⁸ Based on a scenario of a three percent increase in border crossings resulting from the positive message the extension would send, and a 15 percent increase in passenger crossings who decide to travel north of the 75-mile border zone due to the extension.

Introduction

The travel and tourism industry is Arizona's top export-oriented industry, generating \$19.8 billion in direct spending by both domestic and international visitors in 2013. International visitors make up 15.7 percent of both domestic and international visitations, injecting new monies into Arizona's economy. Mexico is Arizona's top tourist originating country and trading partner. In 2013, there were 17.4 million visitations to Arizona by Mexican citizens. Over ninety-nine percent of these travelers enter into Arizona through its six border ports of entry with majority of them coming from Sonora, Mexico. 3.6 million Mexican travelers chose to stay one night or more representing 68 percent of all international overnight travelers to Arizona⁹. Mexican overnight travelers spent on average \$839 per party per trip, accounting for 66 percent of Arizona's Mexican international visitors expenditures.¹⁰

The majority of Mexican travelers use the border crossing card to travel into the United States. In fiscal year 2013 nearly 1.5 million of the 1.7 million visa applications adjudicated at the U.S. State Department's consulates and embassies in Mexico were for Border Crossing Cards.¹¹ According to the U.S. State Department official website, approximately 1,283,947 Mexicans were issued a BCC in that fiscal year. Over the last 10 years, approximately 1,010,713 Mexicans were issued a BCC in Nogales and Hermosillo, the two closest cities to Arizona located in the state of Sonora.

Border Crossing Cards (BCCs)

Border Crossing Cards (BCCs) were first issued in 1918¹² as a means of replacing the documents required for frequent, non-immigrant crossers of the US-Mexico border, with the intent of fostering the economic connectivity of the Border Region. BCC cards cost \$15 for crossers under 15 years of age, and \$160 for over 15 years. To obtain a card requires a valid passport, application, face-to-face interview, and criminal history check. They also require contact information and proof of ties to family and employment in Mexico. Other visas that are also available to Mexican nationals traveling to the United States include the B-1 (business), B-2 (pleasure & medical), and B-1/B-2 (combination); each carry similar requirements to the BCC.¹ Most Mexican citizens are issued a combined Border Crossing Card and B1/B2 visitor's visa in the form of a BCC/Laser Visa.

In 1953, a 25 mile border zone was established¹³, limiting the travel of BCC holders without an I-94 form. BCC holders were also limited to a 72 hour period of stay within the U.S., until 2004, when the limit was increased to 30 days. In 1999, the state of Arizona extended the border zone to 75 miles for holders of the BCC, at specific ports of Sasabe, Nogales, Mariposa, Naco and Douglas, in recognition of the lack of major economic centers within the 25 mile radius (64 FR 68616 Dec, 8, 1999; 8 CFR 235). This effectively allowed BCC holders to travel to Tucson. Other states such as California and Texas retain the 25 mile border zone for BCC holders. In 2013, New Mexico extended its border zone to 55 miles (78 FR 35103 July, 2013).

⁹ Churchard, K., Elkins, M., & Miller, J. (2014). Arizona Travel Impacts and Visitation (Presenting 2013 YE Data), Arizona Office of Tourism.

¹⁰ Pavlakovich-Kochi, V., & A. Charney. (2008). Mexican Visitors to Arizona: Visitor Characteristics and Economic Impacts, 2007-08, The University of Arizona.

¹¹ U.S. State Department Hearing on Border Security - 2013

¹² Smith, L, Marian (Historian). History of the INS – U.S. Immigration & Naturalization Service, *United States Citizenship and Immigration Services (USCIS)*. <http://www.uscitizenship.info/ins-usimmigration-inoverview.html> accessed 4/23/2015

¹³ 78 Federal Registry 35103 July, 2013

Proposal to Extend the Border Zone in Arizona Statewide

Over the past two years, the Maricopa Association of Governments has worked with Council of Governments and Metropolitan Planning Organizations throughout the state to seek support for a proposal to extend the border zone in Arizona from its current limit of 75 miles north of the U.S.-Mexico border to the entire state. To date, the proposal has received the support from Central Arizona Governments, Flagstaff Metropolitan Planning Organization, the Northern Arizona Council of Governments, Maricopa Association of Governments, Pima Association of Governments, Southeastern Governments Organization, Western Arizona Council of Governments, the Yuma Metropolitan Planning Organization, and the Inter Tribal Council of Arizona. In addition, the Nogales City Council unanimously passed a resolution of support.

The proposal to extend the border zone would allow frequent, pre-cleared Mexican visitors holding a border crossing card to travel throughout the entire state. The goal of the measure is to foster economic development throughout the state through increased visitor travel and spending. The proposed change would require an amendment to the United States Department of Homeland Security regulations to permit BCC holders to travel throughout the state without obtaining a paper Form I-94 (arrival/departure record). Under the current border zone limit, those who wish to remain longer or travel further north beyond the border zone must apply for, and obtain an I-94 paper form at secondary inspection stations and pay a processing fee of \$6. Electronic I-94 forms are available for visitors to the U.S. arriving via air and sea, but have not been implemented for travelers crossing into the U.S. through a land port of entry.

The goal of this report was to estimate Mexican visitors' expenditures based on a scenario analysis of the effects of extending the border zone to the entire state of Arizona, and use these baseline travelers' expenditures to generate a range of related economic impacts on Arizona's economy. The analysis relied almost exclusively on the previous survey-based study *Mexican Visitors to Arizona: Visitor Characteristics and Economic Impacts, 2007-08*, prepared for the Arizona Office of Tourism, by Alberta H. Charney, Ph.D. and Vera Pavlakovich-Kochi, Ph.D. of the University of Arizona's Economic and Business Research Center, Eller College of Management, University of Arizona.

Although the analysis in this report provides some estimates for 2013, and projections for 2014 through 2016, this report should not be considered nor described as an "update" of that 2007-08 study. No new surveys have been conducted. Instead, many of the 2007-08 survey results on important measures, such as the portion of northbound border crossers that are U.S. citizens versus non-U.S. citizens, are assumed unchanged. The data that broke total border crossers into these categories of U.S. citizens versus non-U.S. citizens has not been made available by the U.S. Department of Homeland Security since that study. In addition, the expenditure mix of border crossers both by port of entry and by destination county is assumed to remain unchanged from 2007-08. Travel party sizes, important for adjusting total border crossers into spending units, are assumed unchanged. Essentially, the 2013 expenditures have been estimated solely by changing the number of border crossers at each port, and by assuming that expenditures per party increased in proportion to the growth in Mexico's per capita Gross Domestic Product (GDP).

Methodology for 2013 Expenditure Estimates and 2014-2016 Projections

The first task was to replicate the 2007-08 travel parties and expenditures, by port of entry and by destination-county.ⁱⁱ This process was begun by allocating visitor parties to ports of entry and to destination counties. To accomplish this, Table 43 from the 2007-2008 Mexican Visitors report was used, which contains the cities of origin of Mexican travelers by final destination. Visitor parties from each originating city were allocated to the US-Mexico border port of entry most likely taken, based on the drive time from those cities. This allocation was not perfect. In some cases, it was difficult to determine precisely which port a party coming from a specific city would have used. For example, parties from Cananea may choose to enter through Naco or Douglas. However, parties were allocated in such a way as to reasonably match crossing parties and parties by destination-county.

Once allocation of travel parties to port of entry and destination-county was completed, expenditures were decomposed - while maintaining per party expenditures - by port of entry and per party expenditures by county of destination. Despite the detailed information in the 2007-2008 report, it was still necessary to make some assumptions in order to reduce the number of variables that had to be adjusted. It was assumed that pedestrians and most pedestrian spending stayed in their county of crossing, even though it is known that some went further north, particularly to Tucson. There was a well-developed bus system to Tucson from Nogales, consequently part of the pedestrian expenditures were allocated to Pima County. Except for the assumptions regarding pedestrians, 2007-08 border crossers by port of entry, by mode, and per party expenditures at both port of entry and destination-county were used to re-create the total expenditure figures, by port of entry and by destination-county.

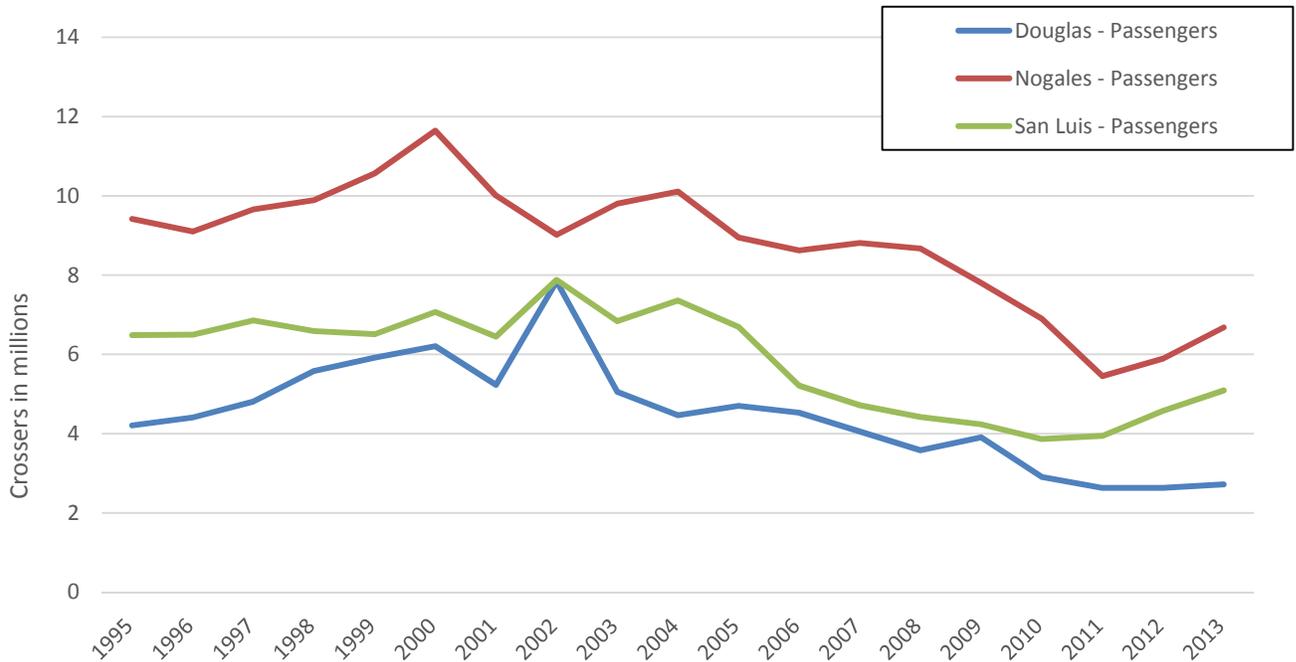
Once the 2007-2008 parties and expenditure figures were decomposed into a two-way table by port of entry and destination-county, 2013 crossing data were used to estimate initial 2013 parties and expenditure figures. The Customs and Border Protection 2013 border crossing data, by port, by mode, were adjusted to represent only non-U.S. citizen crossers¹⁴, using the U.S. citizen - non-U.S. citizen mix of border crossers from the 2007-08 study. Then the non-U.S. border crossers were converted to parties using the party size figures, by port, from the earlier study. Once 2013 non-U.S. citizen parties were estimated, initial 2013 estimates of expenditures, by port, by destination-county, were made.

It is recognized that Mexican resident incomes have grown since the 2007-08 study so, for a given number of crossers and Mexican visitor parties, it can be reasonably assumed that expenditures per party increased in proportion to the growth in per capita Mexican GDP. The annual compounded average growth rate in per capita Mexican GDP was 1.74 percent.

¹⁴ As in the 2007-2008 Mexican visitors study, non-U.S. citizens border crossers will be referred to as Mexican visitors in this study since the non-U.S. citizen population of border crossers is mostly comprised of Mexican nationals.

Once the 2013 expenditure estimates were completed, “projections” for 2014, 2015 and 2016 statewide Mexican visitor expenditures were created. Since 2013 was the last full-year for which border-crossing

Figure 1. Passenger crossings at select southern ports



data were available, short-term trends were used to “project” border crossers for 2014 - 2016, by port of entry by mode. The growth rates in passenger crossers from the low points of each series to current were used to develop the projections. The low points occurred in 2011 for all ports of entry, except for San Luis passenger crossers, which occurred in 2010. For San Luis passenger crossers, the trend from 2010, the low point, was computed. Historical trends for total passenger crossers (U.S. citizen and non-citizen) at select ports are displayed in Figure 1.

Data Source: U.S. Customs and Border Protection, Office of Field Operations, Tucson Field Office

Pedestrian crossers were not trended between 2013 and 2016; they were held constant at 2013 rates. Pedestrian crossing patterns are more volatile than passenger crossers, particularly in San Luis. They are trending downward in Nogales, upward in Douglas and the smaller ports show little or no trend. Since the focus of this analysis is to eventually estimate “what if” scenarios associated with extending the border zone, thereby affecting Mexican visitor travel to areas north of Pima County, less emphasis was placed on projecting pedestrian traffic. Further, total expenditures associated with pedestrians were less than 13 percent of the total expenditures in 2013. Expenditure estimates from 2013 were inflated to 2014-2016 using the average annual compound growth rate in Mexico’s per capita GDP computed between 2007-08 and 2013.

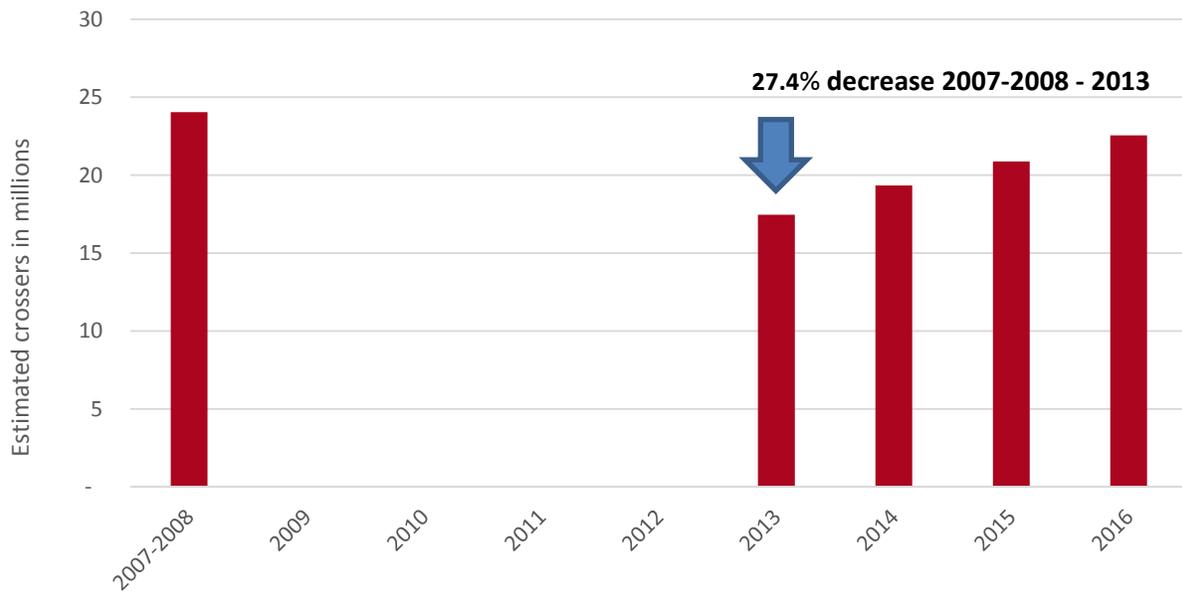
Mexican Visitor Expenditure Estimates for 2013 and Projections for 2014 – 2016

Estimates of Mexican visitors, parties, and expenditures for 2013 and projections for 2014-2016 are presented in Table 1.

Table 1. 2013-2016 Estimates and Projections of Mexican Visitors, Parties and Expenditures (incl. Sky Harbor Airport)					
Mexican Visitors	2007-2008	2013	2014	2015	2016
Estimated Visitors	24,040,000	17,460,000	19,340,000	20,880,000	22,550,000
Estimated Parties	13,690,000	9,480,000	9,960,000	10,470,000	11,030,000
Estimated Expenditures	2,688,670,000	2,260,630,000	2,455,410,000	2,670,260,000	2,907,340,000

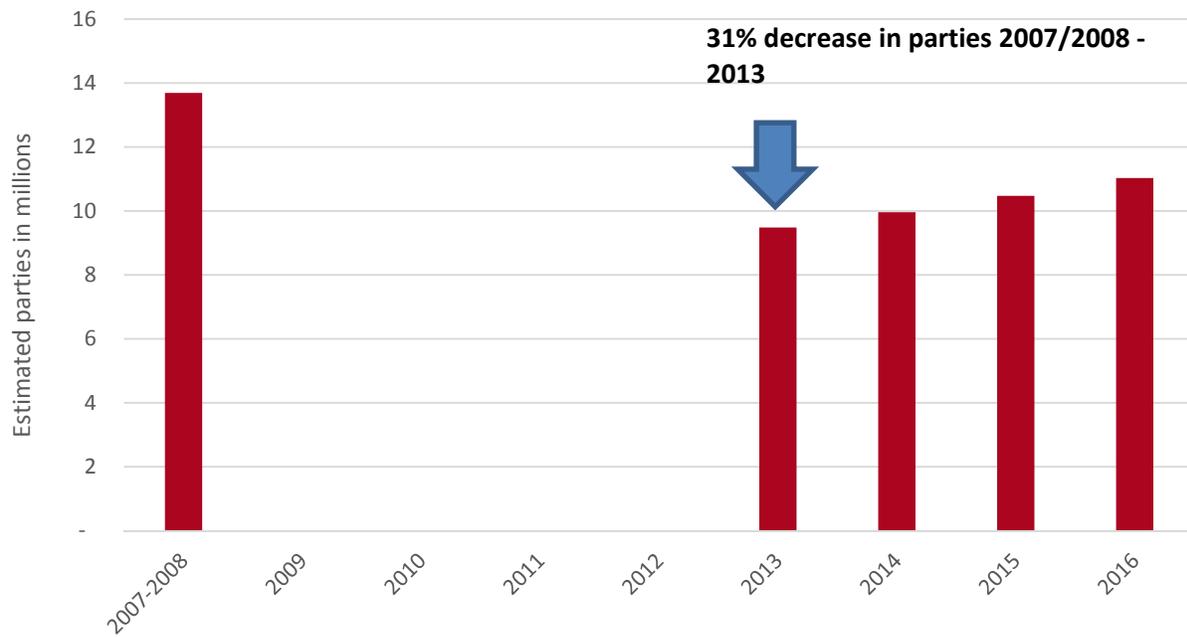
Total 2013 non-U.S. citizen border crossers to Arizona are 27.4 percent below the 2007-08 levels. Strong recent trends in passenger crossers, particularly through the ports of San Luis and Nogales, result in a projected average annual compounded growth rate for crossers of almost 9 percent between 2013 and 2016 (Figure 2).

Figure 2. Estimated 2013 crossers and 2014-2016 projections



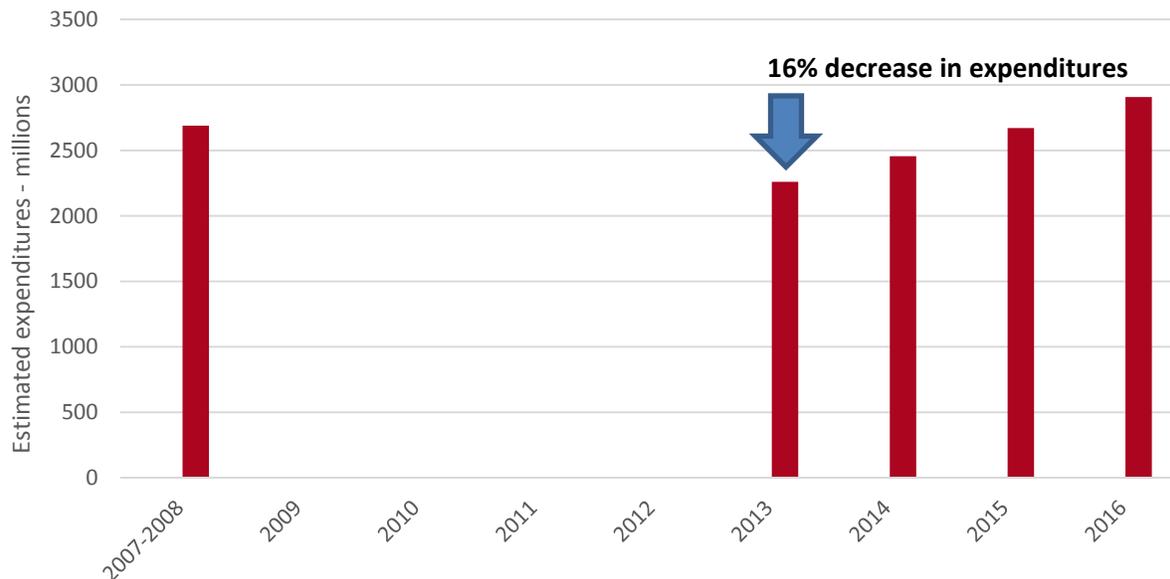
The total number of parties fell by almost 31 percent between 2007-08 and 2013, more than the reduction in non-U.S. citizen border crossers. This is because the number of pedestrian crossers fell dramatically, particularly in Nogales, and pedestrians have a smaller party size. Therefore, the 44 percent fall in pedestrians translates into a decrease in parties that is larger than the decrease in total crossers (Figure 3).

Figure 3. Estimated 2013 parties and 2014-2016 projections



In contrast, the estimated fall in expenditures between 2007-08 and 2013 is only 16 percent. The dramatic reduction in pedestrians reduces the number of Mexican visitor parties. However, because per party expenditures for pedestrians is much smaller than for passenger crossers, total expenditures fall less than proportionally to visitor parties. In addition, it was assumed that visitor expenditures, by party, increased between 2007-08 and 2013 proportionally to the growth in Mexico's per capita GDP. That assumption grows per party expenditures, for all crossers, for all ports by 9.94 percent over the five and one-half years between 2007-08 and 2013. Projected expenditures grew by an annual compounded growth rate of 6.9 percent between 2013 and 2016; results are displayed in Figure 4 and Table 1.

Figure 4. Estimated 2013 expenditures and 2014-2016 projection



Economic Impacts of the Mexican Visitor Baseline Estimates and Projections

Once estimates and projections of baseline Mexican visitor expenditures were completed, economic impacts were estimated. Impacts were calculated using IMPLAN, an input-output database and software system designed to compute the indirect and induced economic effects associated with direct expenditures.

Direct impacts are jobs created as a direct result of the spending activity. Because much of Mexican visitor expenditures are in trade and service categories, those are the sectors where most direct impacts occur. Indirect impacts are effects that occur as impacted direct industries make purchases from other local industries. Hotels, for example, may use local laundry services for linens, or local restaurants purchase food and supplies locally. Induced impacts are generated when employees in the directly and indirectly impacted sectors make local purchases, creating additional rounds of spending impacts.

Labor income, value added, output (as produced by IMPLAN) and gross sales are all subsets of each other and therefore cannot be summed. Labor income is the income earned by both workers and proprietors and is the major component of Value Added, which is the contribution to Gross Domestic Product of the region. Unlike Value Added, which subtracts input purchases at each round so there is no double counting as money circulates through a local economy, Output (as produced by IMPLAN) is the summation of spending at each round. Output, therefore, double counts the intermediate costs of goods and services at each round. IMPLAN, in computing direct output, removes the wholesale cost of the goods and retains only the retail/wholesale margin. Therefore, in IMPLAN, it is possible that when a relatively high portion of direct expenditures is spent on retail or wholesale purchases, the resulting total output impact is less than total direct expenditures. Therefore, total direct expenditures are

substituted for IMPLAN’s direct output and summed with indirect and induced. We call the result Gross Sales. Total sales represents the summation of sales at all rounds of spending and includes the cost of items purchased outside the region, and double counts the cost of intermediate goods as money circulates through the economy.

Simulations

In addition to computing the economic impact associated with estimates and projections of Mexican visitor expenditures, three simulations were run, representing three “what if” scenarios.

Scenario 1: The change in the border zone sends a message to Mexican travelers that they are welcome and it results in an increase in all non-U.S. citizen border crossers to Arizona (including passengers at Sky Harbor International Airport) by 3 percent.

Scenario 2: The change in the border zone sends a positive message to Mexican travelers that they are welcome. The proposed change will enable Mexican visitors to travel further north since the zone limit is removed and the 1-94 deterrent effect no longer exists. In this scenario, pedestrian crossers are assumed to be unaffected by the change in the border zone, and a 3 percent increase in passenger border crossers (including passengers at Sky Harbor) is simulated.

Scenario 3: The change results in an increase in the number of existing non-U.S. citizen border crossers who choose to travel further north than Tucson. Three alternative assumptions were used in these scenarios:

Scenario 3a: The total number of visitor parties to the northern parts of the state increases by 5 percent over the number of visitor parties already identified as traveling north of Pima County. This scenario does not increase the total number of border crossers. Instead, it subtracts an equal number of passenger crossers/parties from baseline southern-port crossers and assumes they travel north of Pima County and will most likely end up in Maricopa County, although some are allocated to Mohave County and a small portion to Coconino.

Scenario 3b: This scenario is similar to 3a, but the increase in northern parties is assumed to be 10 percent.

Scenario 3c: This scenario is similar to 3a, but the increase in northern parties is assumed to be 15 percent.

Scenario 1 is not as realistic as Scenario 2, simply because pedestrian behavior is much less likely to change with a border zone extension. Pedestrian crossings are strongly related to local shopping and, to a lesser extent, Arizona job opportunities. In graphs of total pedestrian border crossings, the Arizona housing bubble and economic boom, followed by the steep recession, is visible in the data (Figure 5). It

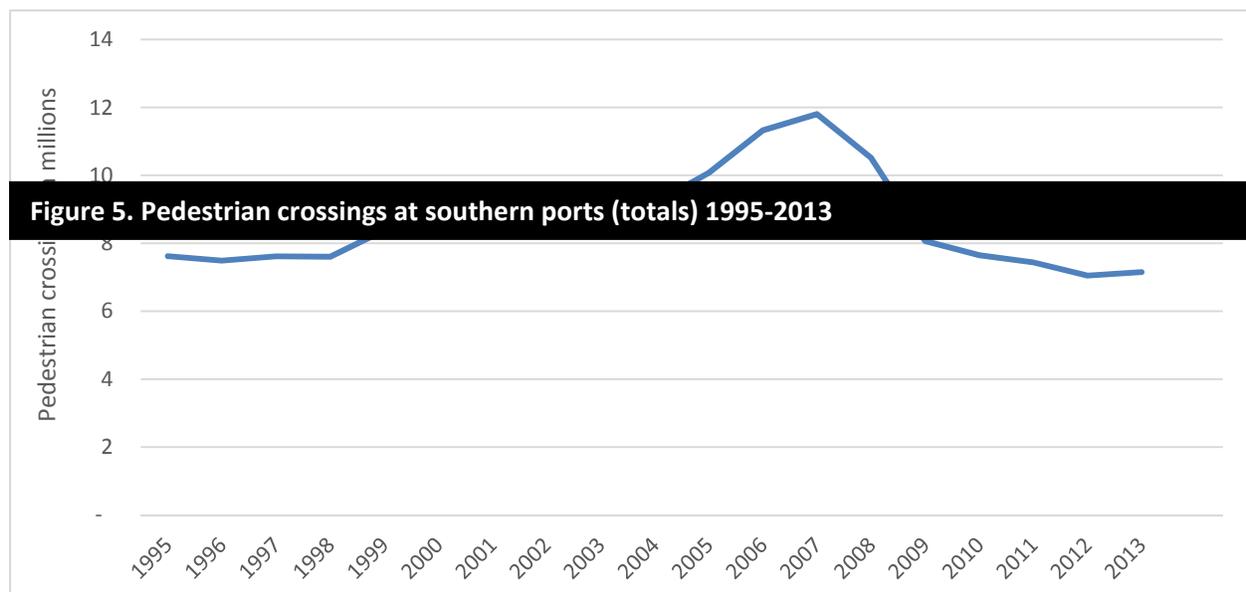


Figure 5. Pedestrian crossings at southern ports (totals) 1995-2013

may be that a few of the pedestrians were working in construction or other related sectors on this side of the border. It is also likely that the performance of the maquiladora, the fresh produce industries and trade-related activities along the border are highly correlated to both the U.S. and Arizona economies, resulting in higher pre-recession wages for border residents and more frequent crossings by Mexican visitors.

Scenario 3 subtracts a very small portion of the southern Port-of-Entry border crossers who would have stayed within the current border zone and reallocates them to northern parts of the states. The 5 percent, 10 percent and 15 percent increase is an increase in northern destination parties, not a decrease by that amount in current border zone parties. For example, if one thousand parties traveled north of the existing border zone in the 2013 estimated visitor parties, then this scenario would increase parties traveling to the north by 50 parties (5 percent), 100 parties (10 percent) and 150 parties (15 percent). Specific increases to the region north of the existing border zone are discussed below under scenario results.

The simulation results should be viewed as “what if” scenarios. However, the 3 percent for the increase in Scenarios 1 and 2 was chosen after examining crossing data before and after previous border expansions.

The 1999 change in Arizona’s previous border expansion proved difficult to analyze because a) that border expansion occurred during a strong upward trend in border crossings and b) within a year after the border was extended, Arizona and the rest of the U.S. went into a recession that, although it was mild in terms GDP, was long in terms of job loss and job recovery. The strong upward trend combined with the downward shift associated with the recession make conclusions from the Arizona border crossings data difficult. Patterns in crossers cannot be analyzed on a port-by-port basis because people can vary their port of entry, depending on where they are going or to avoid long wait times at other ports. Total passenger crossers were summed across all southern Arizona ports. The percent change in all border crossers from 1999 to 2000 (the year following the change) was compared to the percent change in all border crossers in the previous year (1998-1999) and the difference was just under 3.9 percent. The growth rates before the change were volatile and turned negative in the second year following the change, due to the recession, so it is important to examine other data, as well.

The New Mexico border zone expansion occurred in July, 2013. Again, port by port border crossers cannot be analyzed for New Mexico because passengers change ports of entry for a wide variety of reasons. The Santa Teresa port substantially increased capacity in May 2013 by adding additional lanes. Since that change, border crossers at that port jumped substantially (over 20 percent) due to border crossers diverting from one of the two other ports, particularly the El Paso port in Texas. For New Mexico, the growth rate in total border crossers (including through the El Paso port of entry) was 4.2 percent higher during the year after the border extension than the year prior to the border extension.

We chose to simulate a 3 percent increase in border crossers. This increase is less than both the 3.9 percent associated with Arizona’s previous expansion, and the 4.2 percent increase associated with the very recent New Mexico expansion. There are many differences between the proposed extension to the whole state of Arizona and the previous widening of the border zone, however. Specifically, the previous border zone extension in Arizona permitted travel to a major city (Tucson), which dramatically increased the shopping opportunities. Although the 3 percent is conservative compared to the one-year growth comparisons just discussed, we will not know for certain what the increase in border crossers will be with the proposed statewide border zone extension until the proposal is implemented.

Pima County and Tucson are sufficiently close to the border to permit shopping by day-trip travelers, who cross and return to Mexico the same day, so it was not surprising to see a substantial increase in border crossings associated with the 1999 border expansion. The 2001 Mexican visitors study indicated that 12.2 percent of visitors to Tucson after the 1999 border zone extension did not have an I-94¹⁵. However September 11th events, and a recession in 2001 severely impacted travel through the southern border ports of entry. Traveling further north clearly costs more because the distance involved requires one or more overnight stays. It remains to be seen whether the additional expansion will translate into increased travel to the northern part of the state for shopping, events and other tourist-related activities. However, a major change that was noted between the 2007-08 study and the 2001 Mexican Visitor study (Charney and Pavlakovich-Kochi, 2002), was the dramatic increase in Mexican travelers who chose to spend the night in Arizona, from less than 4 percent in 2001 to about 16 percent in 2007-2008¹⁶. Therefore, the 5 percent, 10 percent and 15 percent increases in Mexican travelers to areas north are certainly feasible.

Scenario 1. Increase all Border Crossers by 3 percent

Although this scenario is not as realistic as Scenario 2, the results are presented in Table 3a. The top section of the table presents the baseline 2013 estimates and 2014-2016 projects, which are identical to those in Table 2. The economic effects associated with the baseline plus 3 percent additional border crossers is presented below that. The difference between the scenario effects and the baseline represents the impacts associated with the 3 percent increase in all port crossings, for all modes. There is an increase in total expenditures by \$62.3 million in 2013 associated with a 3 percent increase in total crossers (including Sky Harbor International Airport). This impact grows over time simply because the 3 percent increase applies to larger numbers in the projections. The total estimated job impact is 636 jobs in 2013, which grows in proportion to the baseline growth. The contribution to GDP associated with the increase in Mexican travelers would have been approximately \$37 million dollars during the 2013 estimation year.

¹⁵ Charney, A., and V. Pavlakovich-Kochi. The Economic Impacts of Mexican Visitors to Arizona, The University of Arizona, July 2002.

¹⁶ Pavlakovich-Kochi, V., and A. Charney. Mexican Visitors to Arizona: Visitor Characteristics and Economic Impacts, 2007-08, The University of Arizona, 2008.

Table 3a. Summary Scenario 1: 3% Overall Mexican Travel Volume Increase

	2013	2014	2015	2016
Baseline				
Expenditures	2,260,630,000	2,455,410,000	2,670,260,000	2,907,340,000
Total Effect				
Jobs	23,076	25,064	27,257	29,677
Labor Income	836,890,000	909,000,000	988,530,000	1,076,300,000
Value Added	1,351,470,000	1,467,920,000	1,596,360,000	1,738,090,000
Gross Sales	3,259,400,000	3,540,240,000	3,850,010,000	4,191,830,000
Scenario 3%				
Expenditures	2,322,960,000	2,521,830,000	2,741,010,000	2,982,690,000
Total Effect				
Jobs	23,712	25,742	27,979	30,446
Labor Income	859,960,000	933,580,000	1,014,730,000	1,104,200,000
Value Added	1,388,730,000	1,507,620,000	1,638,650,000	1,783,140,000
Gross Sales	3,349,270,000	3,635,990,000	3,952,020,000	4,300,480,000
Difference				
Expenditures	62,330,000	66,410,000	70,750,000	75,350,000
Total Effect				
Jobs	636	678	722	769
Labor Income	23,080,000	24,590,000	26,190,000	27,900,000
Value Added	37,270,000	39,700,000	42,300,000	45,050,000
Gross Sales	89,870,000	95,750,000	102,010,000	108,650,000

Scenario 2. Increase Passenger Border Crossers by 3 percent

The results of Scenario 2, which simulates an increase in only passenger crossers (including Mexican Visitor passengers who fly into Sky Harbor International Airport), are presented in Table 3b. These results are overall slightly smaller than those in Table 3a, for obvious reasons. This scenario does not increase pedestrian crossers so the overall spending is relatively lower resulting in smaller impacts. In this scenario, jobs would have been 551 higher in the 2013 estimation year with a three percent increase in all passenger traffic. Labor income would have been \$20 million higher in the 2013 estimation year and the contribution to GDP (value added) would have been approximately \$33.3 million higher. These impacts grow over time, proportionally to the projected growth of passenger border crossers.

Table 3b. Summary Scenario 2: 3% Mexican Passenger Increase

	2013	2014	2015	2016
Baseline				
Expenditures	2,260,630,000	2,455,410,000	2,670,260,000	2,907,340,000
Total Effect				
Jobs	23,076	25,064	27,257	29,677
Labor Income	836,890,000	909,000,000	988,530,000	1,076,300,000
Value Added	1,351,470,000	1,467,920,000	1,596,360,000	1,738,090,000
Gross Sales	3,259,400,000	3,540,240,000	3,850,010,000	4,191,830,000
Scenario 3% Passenger Increase				
Expenditures	2,314,610,000	2,513,330,000	2,732,370,000	2,973,900,000
Total Effect				
Jobs	23,627	25,655	27,891	30,356
Labor Income	856,870,000	930,440,000	1,011,530,000	1,100,940,000
Value Added	1,383,740,000	1,502,540,000	1,633,490,000	1,777,880,000
Gross Sales	3,337,230,000	3,623,740,000	3,939,550,000	4,287,800,000
Difference				
Expenditures	53,980,000	57,910,000	62,100,000	66,560,000
Total Effect				
Jobs	551	591	634	679
Labor Income	19,980,000	21,440,000	22,990,000	24,640,000
Value Added	32,270,000	34,620,000	37,130,000	39,790,000
Gross Sales	77,830,000	83,500,000	89,540,000	95,970,000

Scenario 3. Increase Parties Traveling North of the Existing Border Zone by 5, 10, and 15 percent

In 2013, there were an estimated 427,334 parties that went to Maricopa County. In this scenario, we increased the parties traveling north of the present border zone parties by 21,366, 42,733 and 64,100 parties, respectively. Correspondingly, we decreased the parties staying in the three border ports of Cochise, Yuma, and Santa Cruz by the same number of parties, spread proportionally to 2013 estimated parties, by port. The resulting decrease in travelers who stayed in the southern counties was approximately one percent. Because parties traveling further north spend substantially more than parties who stay in the border communities, the statewide impact results are positive.

Increasing parties who decide to travel north of the border zone by 5 percent results in an increase of approximately 357 jobs. The job impacts increase over time because the baseline Mexican travelers that travel north of the current border zone increase over time. The three sub-scenarios are proportional with each other since IMPLAN and all Input-Output models are linear in their impacts. Labor income, contribution to GDP, and gross sales are proportional to the job impact.

Table 3c. Summary Scenario 3: 5%, 10%, and 15% Increase in Mexican Travel to Northern Counties

	2013	2014	2015	2016
5% Increase				
Expenditures	26,800,000	29,350,000	34,230,000	35,290,000
Total Effect				
Jobs	357	391	444	470
Labor Income	12,950,000	14,180,000	16,030,000	17,040,000
Value Added	21,710,000	23,780,000	26,830,000	28,580,000
Gross Sales	42,180,000	46,200,000	53,030,000	55,540,000
10% Increase				
Expenditures	53,590,000	58,710,000	68,460,000	70,580,000
Total Effect				
Jobs	714	782	889	940
Labor Income	25,890,000	28,360,000	32,060,000	34,090,000
Value Added	43,420,000	47,560,000	53,660,000	57,170,000
Gross Sales	84,360,000	92,410,000	106,060,000	111,090,000
15% Increase				
Expenditures	80,390,000	88,060,000	102,690,000	105,870,000
Total Effect				
Jobs	1,071	1,173	1,333	1,410
Labor Income	38,840,000	42,540,000	48,080,000	51,130,000
Value Added	65,130,000	71,340,000	80,490,000	85,750,000
Gross Sales	126,540,000	138,610,000	159,090,000	166,630,000

Summary and Conclusions

In this analysis, the 2007-08 report on Mexican travelers was used, along with 2013 data on border crossers and some assumptions to estimate 2013 Mexican visitor parties and expenditures. The figures from the 2007-08 Mexican Visitors report were decomposed to accurately estimate border crossers, parties and expenditures for that year. Using updated border crossing data, estimates of 2013 travel parties, by mode of travel, were developed. Expenditures per party were assumed to increase at the same rate as growth in Mexican per capita GDP in \$US. Throughout this analysis, a few major variables were held constant at the 2007-2008 study levels, specifically, party size by port, by mode, and the share of all crossers that were US verses non-US citizens.

To develop estimates for 2014-2016, the annual percent change computed from the trends in passenger crossers, starting from the lowest points (the troughs) at each port of entry, were used. Border crosser projections were converted to party projections. Finally, 2013 per party expenditures were used to estimate per party expenditures in 2014 through 2016 by inflating using the average annual compound growth rate in per capita Mexican GDP, computed from the 2007-08 to 2013 period. Total expenditures are total estimated parties times total estimated per party expenditures. Total estimated expenditures between 2007-08 and 2013 fell by 16 percent. Based on projections of passenger crossers and the small assumed increase in per party expenditures, estimated expenditures grew 6.9 percent annually from

2013 to 2016. The total jobs impact of these estimated baseline expenditures were 23,076 in 2013, and 25,064, 27,257, and 29,677 in 2014-2016.

Three “what if” scenarios were run: an increase in all non-U.S. citizen border crossers by 3 percent; an increase in passenger crossers by 3 percent; and increases of 5, 10 and 15 percent in the number of Mexican travelers traveling to regions north of the existing border zone. The 3 percent was determined by comparing the growth rates in crossers before and after the 1999 extension of the border zone in Arizona, and the 2013 extension in New Mexico. Both of those border zone extensions resulted in an increase in border crossers the following year by more than 3 percent over the increase in the previous year.

The 3 percent increase in all border crossers, resulted in job impacts of 636, 678, 722 and 769 for the 2013-2016 period. The 3 percent increase in passenger crossers resulted in slightly smaller impacts of 551, 591, 634 and 679 for the same years. The 5 percent increase in travelers to the north had a job impact of 357, 391, 444 and 470 for the 2013-2014 period. The 10 and 15 percent increases in travelers to the north were approximate multiples of the 5 percent increase.

There is some uncertainty whether the proposed border zone extension will result in smaller or larger sized changes compared to the other border expansions. The previous border expansion in Arizona allowed crossers with a BCC to reach Tucson and substantial shopping. The proposed border expansion will open up new business and tourism opportunities to Mexican travelers. Potential destinations could include popular parks and monuments located in rural Arizona such as the Grand Canyon, Sedona, as well as world renowned sporting events such as the Cactus League, NASCAR, and Waste Management Phoenix Open. The actual percentage by which border crossers increase and stimulate spending further north remains to be seen.

On the one hand, the extension should send a positive message to Mexican travelers that they are very welcome to come to Arizona. By removing barriers to travel, it is anticipated that more Mexican travelers will come to the state and that some of those will venture further north and explore all the amenities Arizona has to offer, in addition to shopping. On the other, we don't have a precise understanding of the relationship between the cost and the nuisance of obtaining the I-94 and the Mexican travelers' choice of destination. This is key in determining the effect of the border zone extension. Many high-end Mexican shoppers are already making their way to stores and malls in the Greater Phoenix Metropolitan area. The nuisance factor involved in obtaining the form I-94 for car passengers is almost non-existent for airline passengers, because the airline passengers no longer need to pay a fee and complete paperwork for an I-94 when they arrive at the port of entry. They can also obtain a copy of the electronic I-94 at the air or sea port of entry or online if necessary. Customs and Border Protection (CBP) now gather air and sea travelers' arrival and departure information automatically from electronic records provided by State Department, carrier or CBP. Obtaining the Form I-94 at the southern border ports requires a \$6 fee, and is time consuming as it requires additional biometric checks and interviews so it is this group that is expected to be impacted by the border expansion. Based on the impacts of the 2013 New Mexico 55-mile border zone extension on CBP, extending the border zone will allow Customs and Border Protection (CBP) to better allocate resources by reducing paperwork burdens associated with the Form I-94 process for both travelers and the CBP officers¹⁷.

¹⁷ Zone Extended for Border Crossing Card Holders in New Mexico, U.S. CBP News media released June 7, 2013

We know that the primary reason Mexicans cross the border is to shop [Charney and Pavlakovich-Kochi, 2008; Sullivan et al, 2013]. We also know that the reason they come to shop is for a better selection, service and often better prices. However, as early as 2006, it was noted that more and more high-end stores are opening in the larger cities of Mexico. As demand for certain items are met on the Mexican side of the border, the incentive to travel to the US is lessened [Cañas et al, 2006]. The US continues to have the edge, it was argued, because of a wider variety of goods, better prices and the latest styles.

The Peso has been losing value over many years, making American goods more expensive for Mexican shoppers over time. In addition, short-run fluctuations in the exchange rate can have immediate effects on border communities, but it may not affect each border town uniformly. Each border community has different US-Mexico relationships that result in different impact effects from any policy change, i.e., whether the community is strongly connected to the U.S. through agriculture, such as commercial vegetables, or whether it is linked through manufacturing and maquiladoras [Cañas et al, 2005].

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ⁱⁱ It should be noted that the original 2007-08 survey database, which still exists, could not be accessed in time for this study. The turn-around time on this was extremely short and returning to the original database, which has not been accessed in over five years, would have taken much longer than the total time allotted to computing the figures for this study.