

ESTIMATING ECONOMIC IMPACTS OF
BORDER WAIT TIMES AT THE SAN DIEGO-
BAJA CALIFORNIA BORDER REGION

SUMMARY GRAPHICS

CONDUCTED FOR



AND



MARCH 2005

True North
RESEARCH

HLB



TABLE OF CONTENTS

Table of Contents	i
Interim Summary Graphics	1
Graphics.....	1
Question SC1: Country of Residence.....	1
Question 1: Trip Origin, live in Mexico.....	2
Question 2: Trip Destination, live in Mexico.....	2
Question 3: Primary Trip Purpose, live in Mexico.....	3
Question 4: Secondary Trip Purpose, live in Mexico.....	3
Question 25: Trip Destination, live in U.S.....	3
Question 26: Primary Trip Purpose, live in U.S.....	4
Question 27: Secondary Trip Purpose, live in U.S.....	4
Question 6: Number of Trips Across Border in Past 30 Days, live in Mexico.....	5
Question 28: Number of Trips Across Border in Past 30 Days, live in U.S.....	5
Question 7: Expected Border Wait Time, live in Mexico.....	6
Question 29: Expected Border Wait Time, live in U.S.....	6
Question 9: Amount of Money Expect to Spend in US on Trip, live in Mexico.....	7
Question 11: Intention of Spending had Trip not been Taken, live in Mexico.....	9
Question 31: Amount of Money spent in Mexico on Trip, live in U.S.....	9
Question 33: Intention of Spending had Trip not been Taken, live in U.S.....	10
Question 17: Expected Loss of Work Hours due to Border Delay, live in Mexico.....	11
Question 40: Expected Loss of Work Hours due to Border Delay, live in U.S.....	11
Question 18: Willingness to Work Across Border with 2 Hour Border Waits, live in Mexico.....	11
Question 41: Willingness to Work Across Border with 2 Hour Border Waits, live in U.S.....	11
Question BQ: Willingness to Use and Pay for East Otay Mesa POE.....	11

INTERIM SUMMARY GRAPHICS

The purpose of this memorandum is to provide select graphics which summarize some of the data collected for the San Diego Association of Government's study: *Estimating the Economic Impacts of Border Wait Times at the San Diego-Baja California Border Region*. The graphics are based on survey data collected from northbound border crossers at the Otay Mesa-Mesa de Otay, San Ysidro-Puerta México, and Tecate-Tecate points of entry. Crossers traveling in personal vehicles and buses, as well as individuals crossing on foot or using non-motorized forms of transportation (e.g., bicycle), were included in the survey. The primary goal of collecting the data is to develop an economic model that estimates the impacts of border delays on the economies of the San Diego-northern Baja California region.

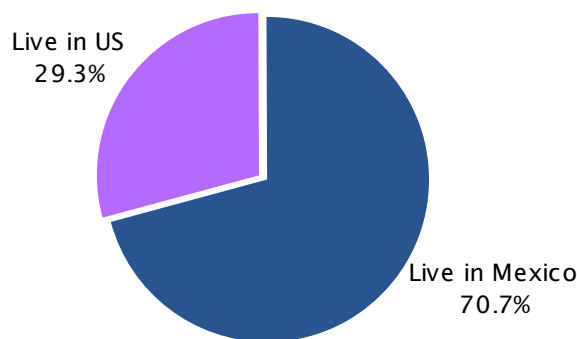
The graphics in this memo are based on 3,603 interviews collected over the course of the data collection period. Interviews were conducted between November 10, 2004 and December 12, 2004,¹ as well as between January 18, 2005 and February 26, 2005.²

When reviewing the graphics included in this memo, it is important to note that they have been weighted to adjust for the strategic oversampling described in *Technical Memorandum #3*. The data were weighted by point of entry (POE), day type, peak/offpeak, mode, SENTRI status and holiday status to be representative of annual border crossing volumes on each dimension.³

GRAPHICS For convenience, the following graphics are presented in the order that the questions were asked in the surveys and are labeled according to the question number. In some cases, the graphics combine the answers from the different questionnaire versions.⁴

Question SC1 *Do you live in Mexico or the United States, or are you visiting from another country?*

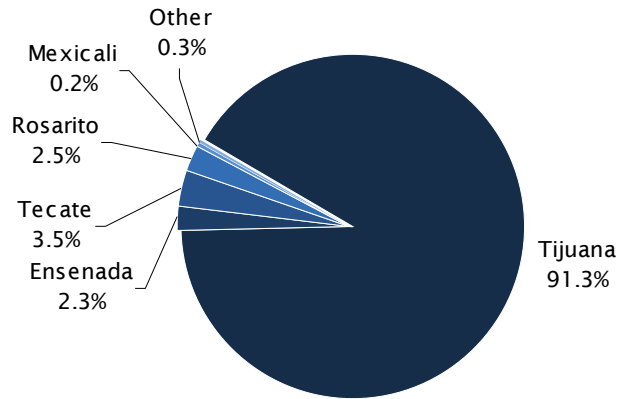
FIGURE 1 SC1 -- ALL RESPONDENTS



1. There were an additional 151 interviews completed among individuals whose destination was outside of San Diego County. These individuals are factored into Figures 1 and 2, but were not asked the remaining questions in the survey and thus are not included in the remaining graphics.
2. The sampling plan, interviewing protocol and questionnaires used in the study are described in *Technical Memorandum #3* and *Technical Memorandum #4*.
3. Data on the volume of northbound border crossings during the data collection period supplied by the Department of Homeland Security (DHS) were used to accomplish the weighting.
4. Recall that the questionnaires differed somewhat depending on whether the respondent lived in Mexico or the United States.

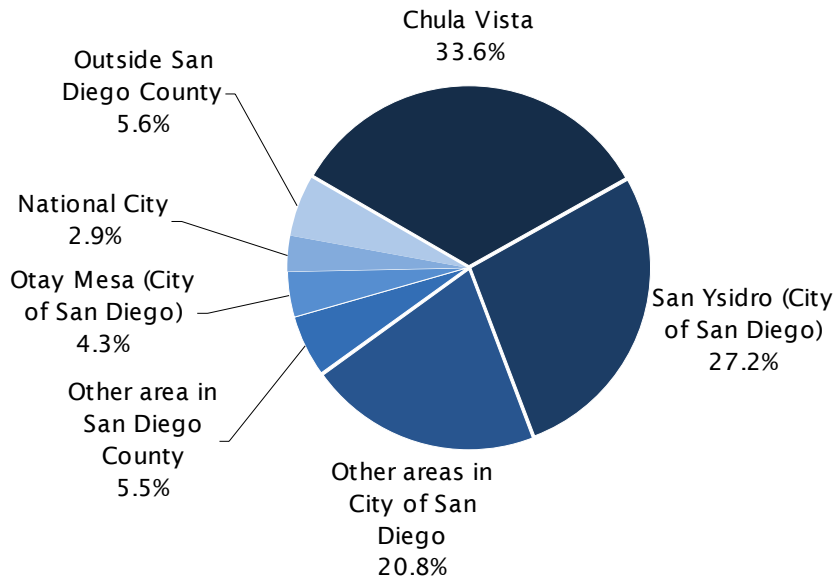
Question 1 *Where did you begin your trip today?*

FIGURE 2 Q1 - RESPONDENTS WHO LIVE IN MEXICO



Question 2 *Where is your primary destination today?*

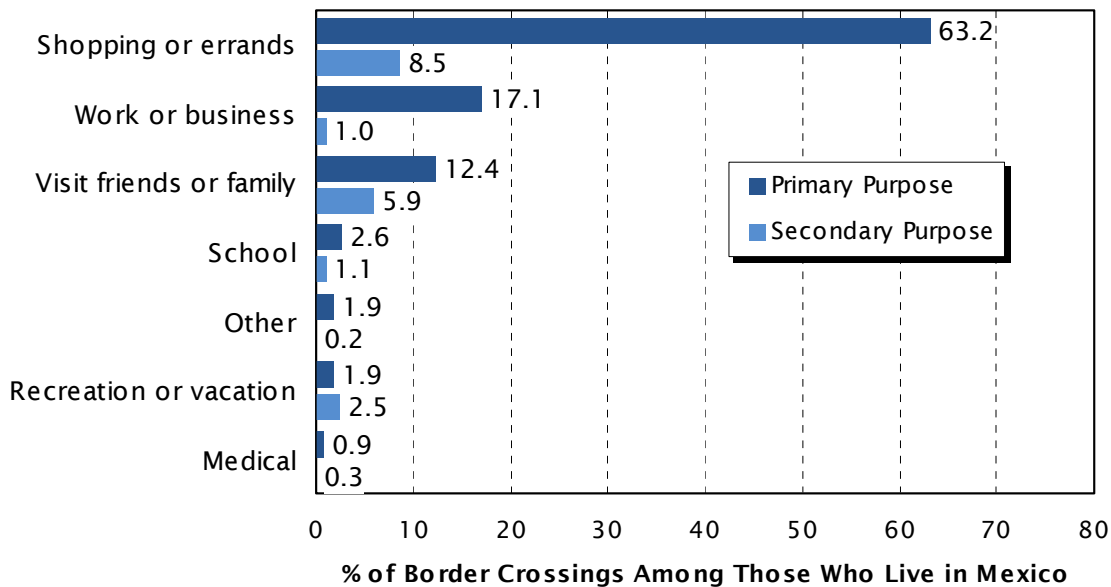
FIGURE 3 Q2 - RESPONDENTS WHO LIVE IN MEXICO



Question 3 *What is the primary purpose for your trip today?*

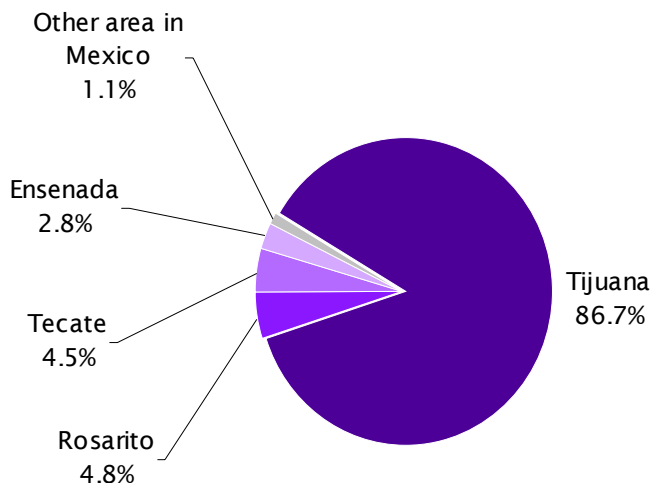
Question 4 *Is there a secondary purpose for your trip today?*

FIGURE 4 Q3 AND Q4 -- RESPONDENTS WHO LIVE IN MEXICO



Question 25 *Where was your primary destination in Mexico?*

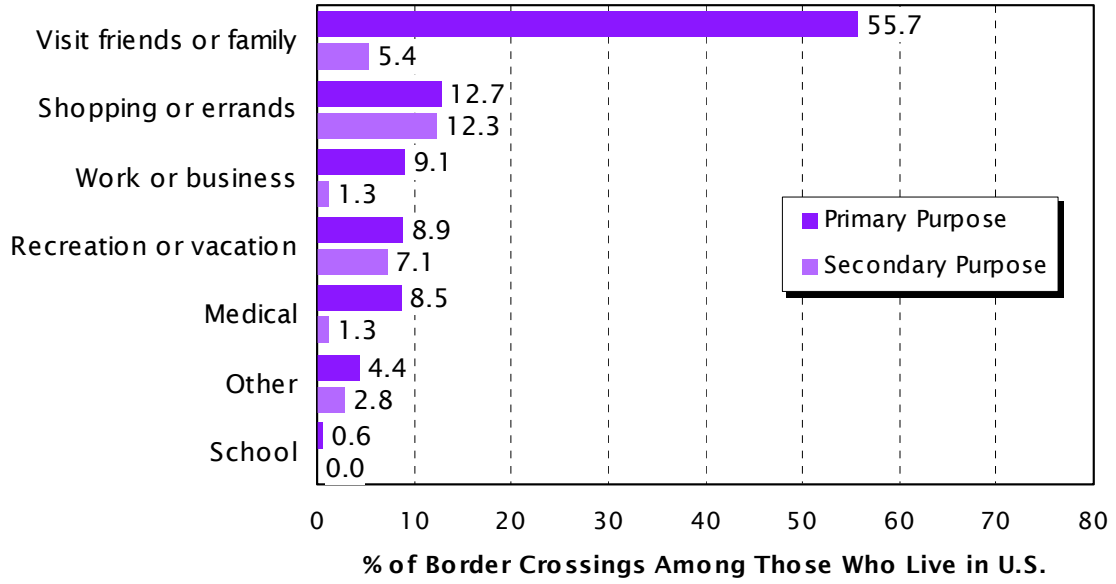
FIGURE 5 Q25 - RESPONDENTS WHO LIVE IN U.S.



Question 26 *What was the primary purpose for your trip?*

Question 27 *Was there a secondary purpose for your trip?*

FIGURE 6 Q26 AND Q27 - RESPONDENTS WHO LIVE IN U.S.

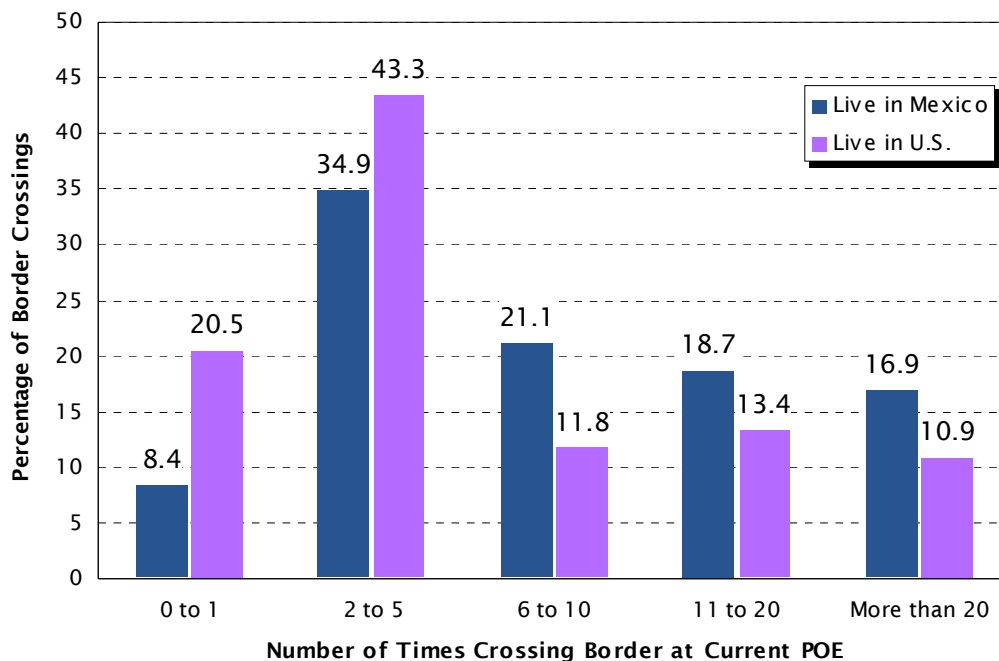


Question 6 In the past 30 days, how many times did you cross into the United States at this point of entry?

Question 28 In the past 30 days, how many times did you cross into the Mexico at this point of entry?

Note: Averages: Q6 = 11.24, Q28 = 7.94

FIGURE 7 Q6 AND Q28 - ALL RESPONDENTS

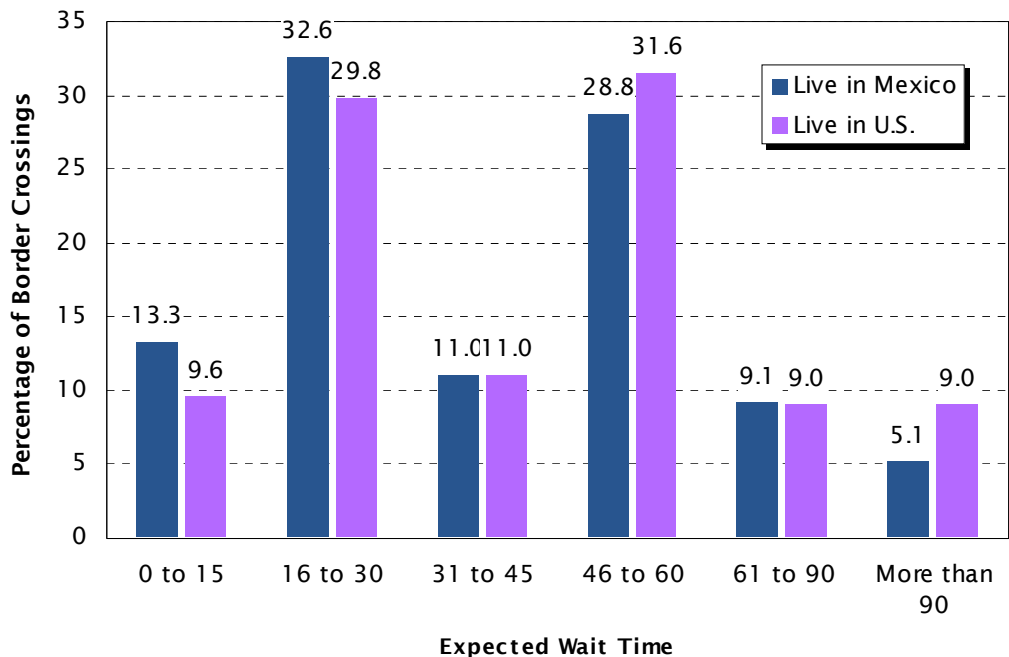


Question 7 When you started this trip today, how long did you expect to wait in line at the border before crossing into the United States?

Question 29 When you decided to make this trip into Mexico, how long did you expect to wait in line at the border today before crossing back into the United States?

Note: Average times: Q7 = 47.72, Q29 = 53.15

FIGURE 8 Q7 AND Q29 -- ALL RESPONDENTS



Note: Fewer than 5 respondents used pesos -- they have NOT been included in the next four figures. Only respondents who used dollars are included in the following four figures.

Question 9 *In total, how much money do you expect to spend in the United States on this trip?*

FIGURE 9 Q9 MEANS BY HOLIDAY AND NON-HOLIDAY PERIODS - RESPONDENTS WHO LIVE IN MEXICO

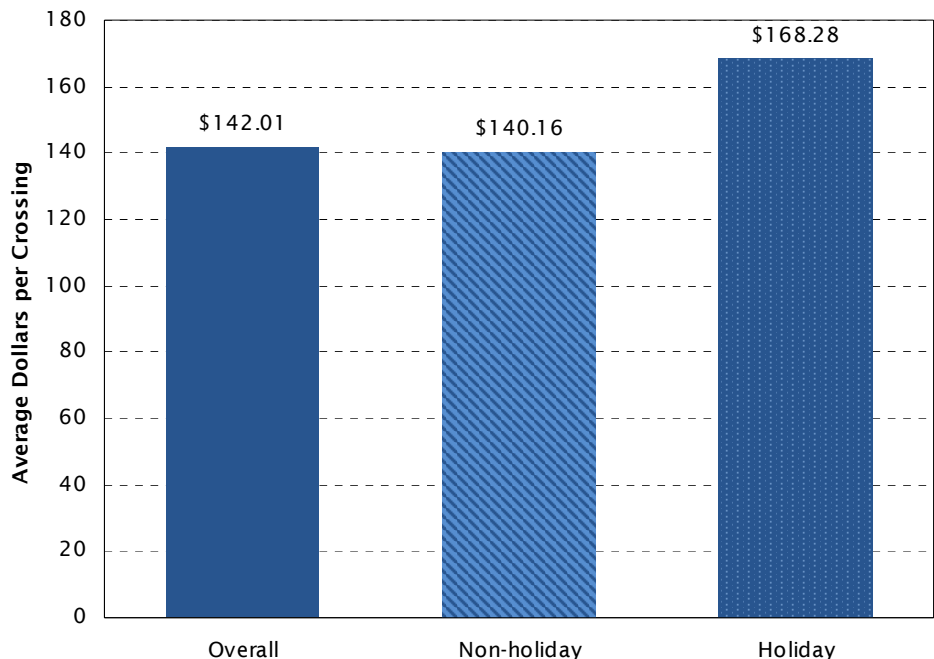


FIGURE 10 Q9 OVERALL DISTRIBUTION - RESPONDENTS WHO LIVE IN MEXICO

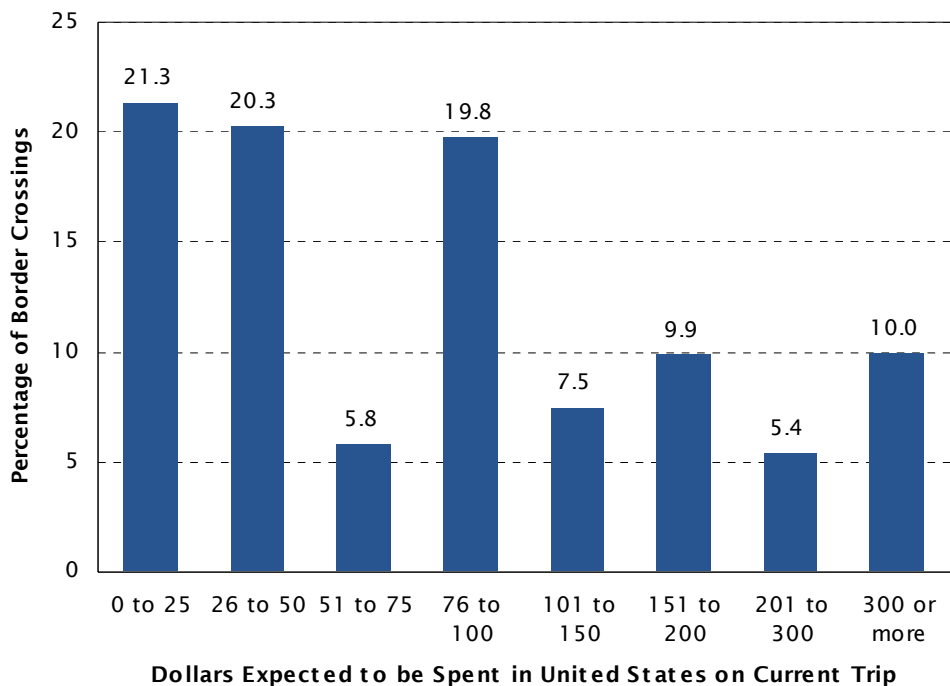


FIGURE 11 ZOOM-OUT BOX PLOT DISTRIBUTION OF Q9 SHOWING OUTLIERS⁵

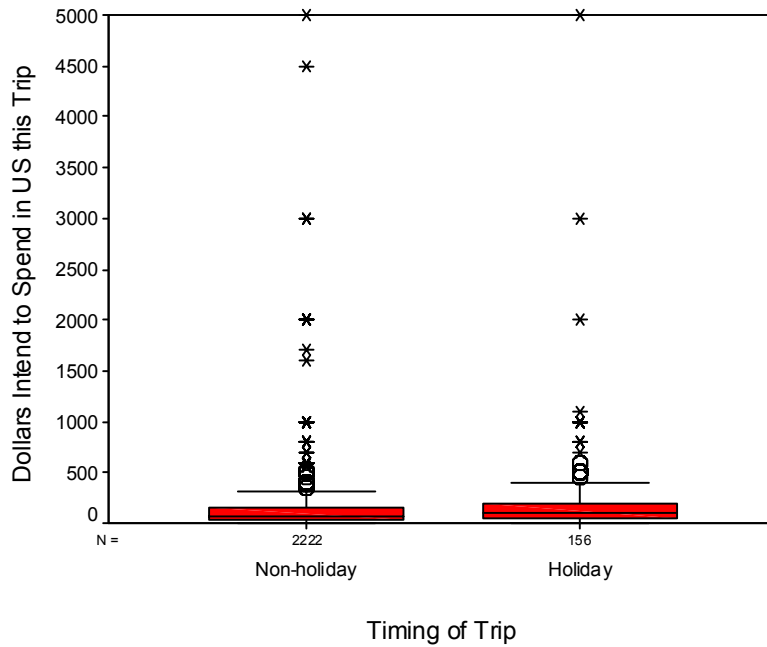
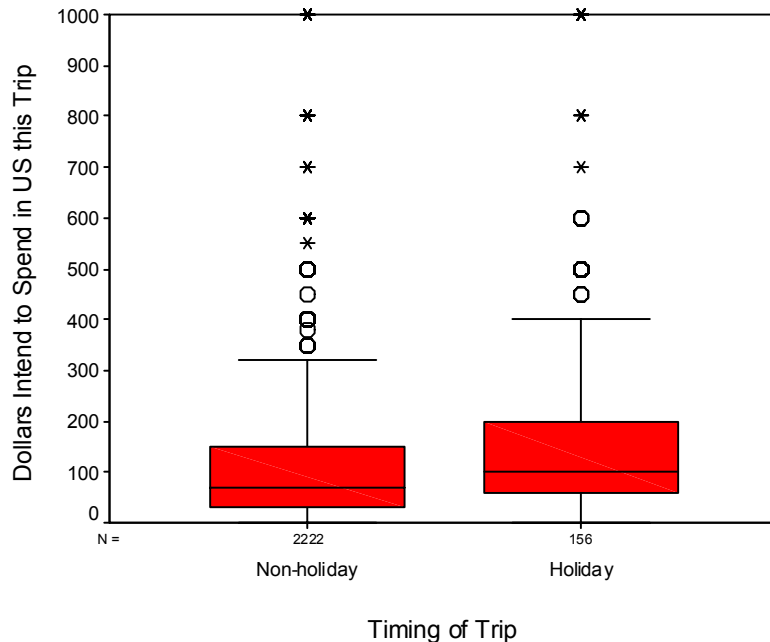


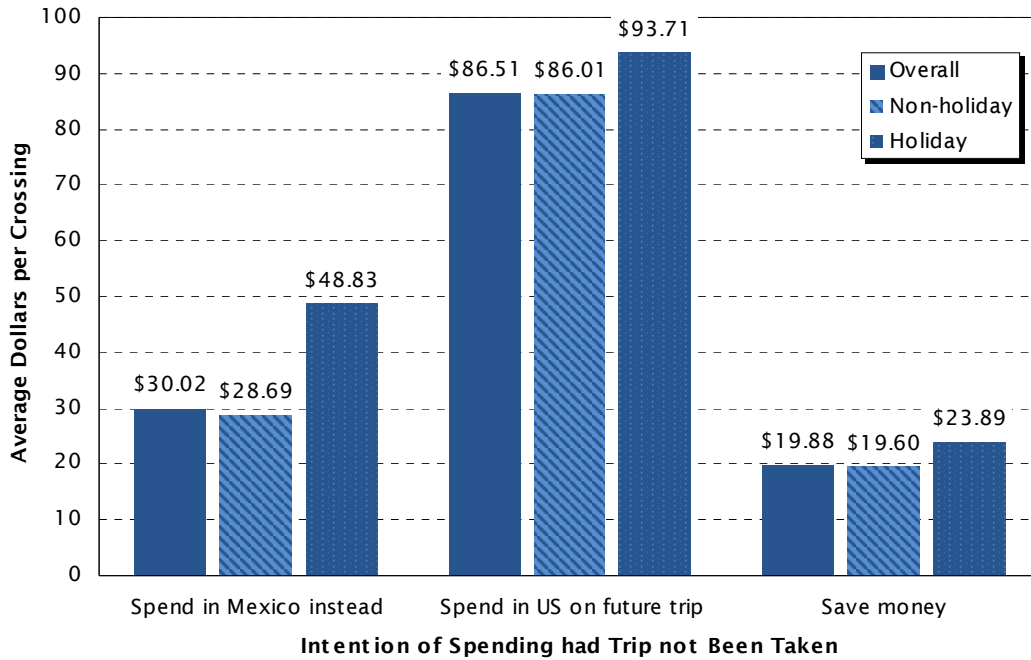
FIGURE 12 ZOOM-IN BOX PLOT DISTRIBUTION OF Q9 SHOWING OUTLIERS



5. Figures 11 and 12 are 'box plot' figures that show the distribution of responses to Question 9. Figure 11 is zoomed-out and shows most of the scale, whereas Figure 12 is zoomed-in to show more detail. Focusing on Figure 12, the figure shows the median dollars that respondents intended to spend in the U.S. on the trip (horizontal black line in the middle of the red box), interquartile range (red box) which contains the middle 50% of observations, the range of values for Question 9 (lines extending from the box to the highest and lowest values, excluding outliers), and outliers that occur (circles or stars) by non-holiday and holiday period. The figures demonstrate the skewed distribution of answers to this question.

Question 11 *Imagine that you had decided not to take this trip today because of the long wait time at the border. I'd like to know what you think you would have done with the money you intended to spend today. Would you have: _____? If yes, ask: How much of the money?*

FIGURE 13 Q11 - MEANS BY HOLIDAY AND NON-HOLIDAY PERIODS - RESPONDENTS WHO LIVE IN MEXICO



Question 31 *In total, how much money did you spend in Mexico on this trip?*

FIGURE 14 Q31 - RESPONDENTS WHO LIVE IN U.S.

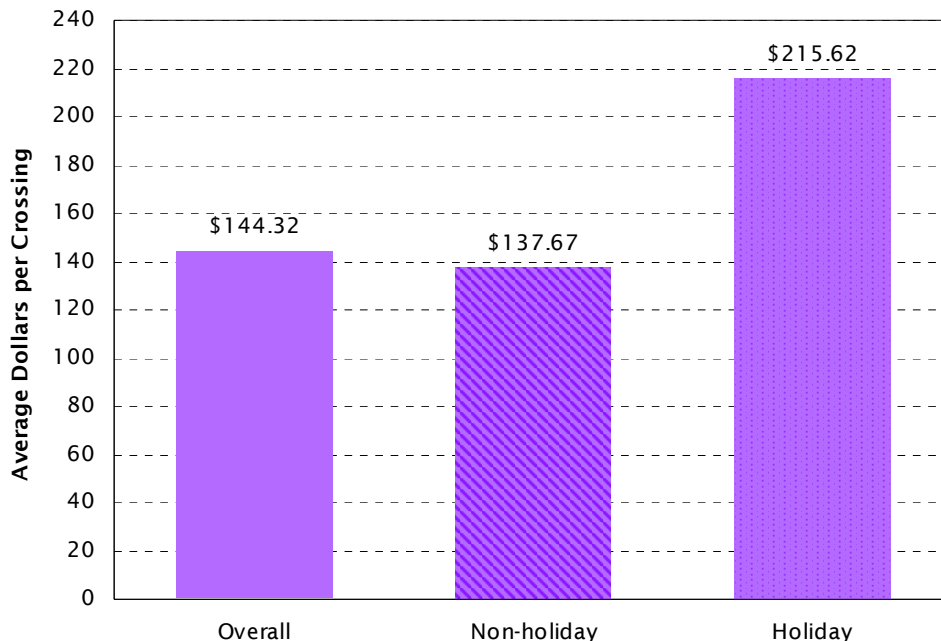
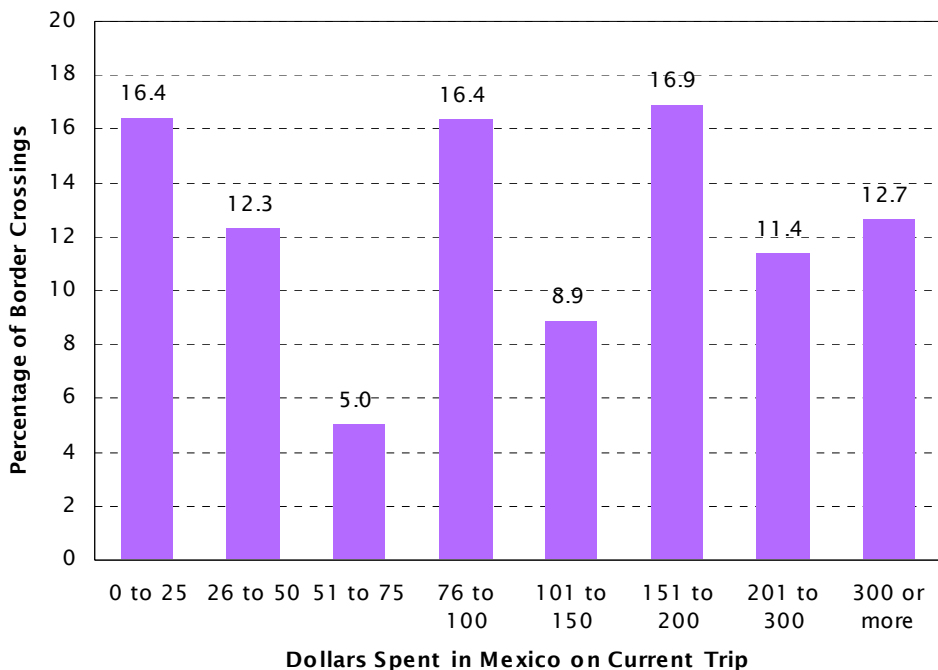
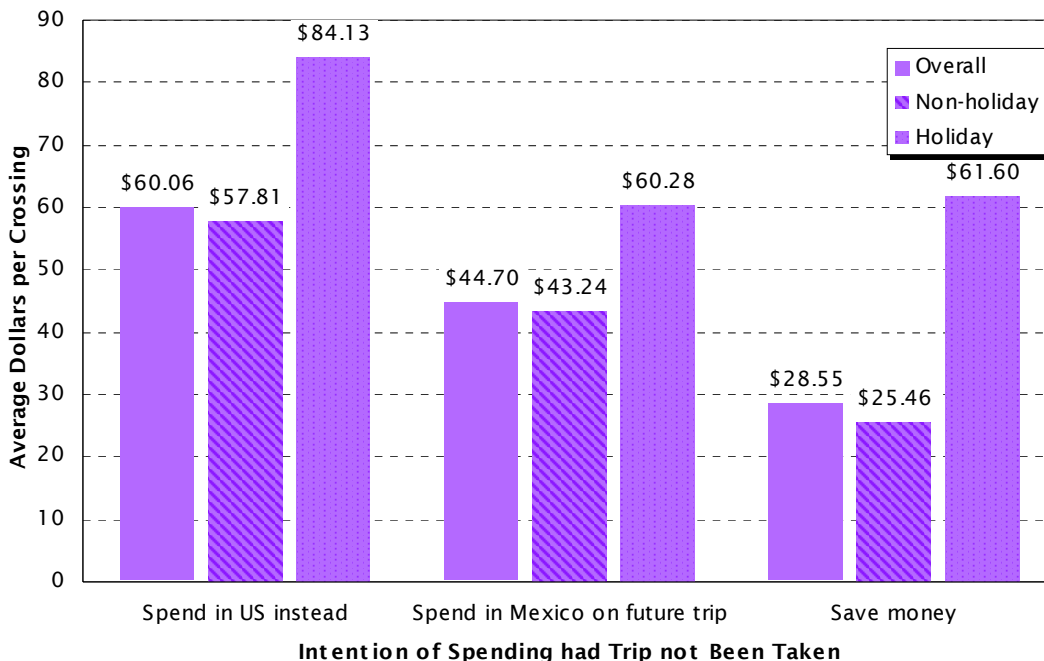


FIGURE 15 Q31 OVERALL DISTRIBUTION - RESPONDENTS WHO LIVE IN U.S.



Question 33 *Imagine that you had decided not to take this trip today because of the long wait time at the border. I'd like to know what you think you would have done with the money you spent in Mexico. Would you have: _____? If yes, ask: How much of the money?*

FIGURE 16 Q33 - RESPONDENTS WHO LIVE IN U.S.



Question 17 *Imagine that you were one hour late to work today because it took longer than expected to cross the border. Would you still work the same number of hours by staying later, or would you work one hour less?*

Question 40 *Imagine that the border wait is one hour longer than you expected today to cross back into the United States. If you knew this ahead of time, would you still work the same number of hours, or would you work one hour less?*

TABLE 1 Q17 AND Q40 - WORKING RESPONDENTS

	Live in Mexico	Live in U.S.
Work same number of hours	49.4%	56.7%
Work one less hour	50.6%	43.3%

Question 18 *If you had to wait 2 hours at the border every day, would you stop working in the United States?*

Question 41 *If you had to wait 2 hours at the border every time when returning to the United States, do you think you would stop working in Mexico?*

TABLE 2 Q18 AND Q41 - WORKING RESPONDENTS

	Live in Mexico	Live in U.S.
Stop working in other country	14.0%	46.6%
Continue working in other country	86.0%	53.4%

Question BQ *A new point of entry may be built in East Otay Mesa that would provide a faster way to cross the border for people who are willing to pay a fee. If it cost three dollars to use this point of entry each time you crossed the border into the United States, would you use it?*

FIGURE 17 BQ - ALL RESPONDENTS

