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**TEXAS A&M INTERNATIONAL UNIVERSITY**  
A Member of The Texas A&M University System

**Department of Accounting, Economics & Finance**

September 23, 2006

Dr. Michael Patrick  
Director, Texas Center  
Texas A&M International University  
Laredo, TX 78041

Dear Dr. Patrick,

In order to fulfill the requirements of the 2005-2006 Texas Center Fellows Research Grant, I have enclosed the paper "The Use of Exchange Rates in the U.S. - Mexico Border" for your consideration. Thank you for your help and economic support.

Sincerely,

A handwritten signature in black ink, appearing to read "Jorge Brusa".

Jorge Brusa  
Assistant Professor

## **Texas Center Research Fellows Grant Program 2005-2006**

### **The Use of Exchange Rates in the U.S. – Mexico Border**

**By Jorge Brusa**

#### **Objective of the project**

The goal of this investigation is to examine the use of exchange rates by business and individuals at the Mexican-US border. In particular, this study investigates the percentage of exchange rate accepted by business and individuals in their daily transactions, the procedure used to determine the conversion rate, the time spent on exchanging or disposing, the percentages of sales and purchasing in foreign currency and the numbers of persons in charge of the foreign exchange activities.

#### **Importance of the study**

The results of this investigation could be of interest to practitioners and academics. Practitioners could be interested in knowing the practical aspects of the use of foreign exchanges, while member of the Academia could use the results of this investigation to compare the use of foreign exchange at the Mexico-US border with previous results observed at the Canada-US border.

#### **Data**

A survey was used to collect the data. The survey was translated to Spanish and the new survey was used to collect data at the Mexican border.

The survey was distributed during June and July 2006 and the data was examined during August 2006. The total number of observations was 300 firms.

## **Results**

The results of this investigation indicate that the majority of the firms in the sample are small business. The average number of employees per firm is 4 (maximum 21, minimum 0). All the interviewed companies have cross-border operations. The average distance from a company to the nearest U.S. – Mexican crossing border is 2.26 miles (maximum distance 6.5 miles and minimum distance 0.1 miles).

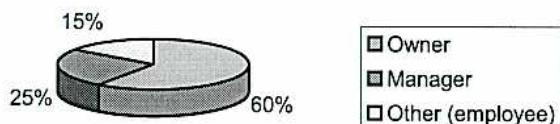
The majority of firms have been accepting U.S. dollars for a long period of time. The average amount of time is 8 years with a maximum of 30 years and a minimum of 1 year. The 58% of the firms in the sample follow the exchange rate set by banks and exchange houses. Practically, all the managers (99 %) in the sample think that accepting dollars enhance their sales. None of them charge a premium when accepting foreign currencies and there is no limit on the purchase if the customer pays with U.S. dollars. Also a large group of managers (79 %) report that they did not have problems with counterfeit currency.

The majority of managers (95 %) report their income to governmental authorities and 84 % of them enroll their employees in social security.

## U.S. Dollar Survey

### Position of Interviewee

**Position of interviewee**



### Number of employees

The average number of employees is 4 per company.

The highest number of employees is 21 and the lowest is 0.

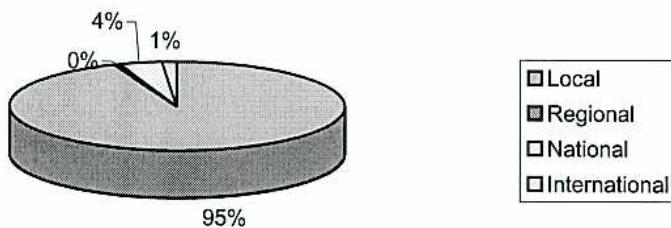
The average number of years a business has been in the local community is 8 years.

The largest number of years an interviewed business has been in the local community is 30 years.

The lowest number of years an interviewed business has been in the local community is 2 years.

### Geographic extend of the company

**Geographic extend of activity**



Out of the 18 respondents whose company is not local, 8 have their company's headquarters located in Monterrey, N.L.; 5 in Ciudad de Mexico; 2 in Nvo. Ldo. Tamps.; 1 in Culiacan, Sin. And 2 in Reynosa, Tamps.

### All the interviewed companies do have cross-border operations.

The average distance from a company location to the nearest US-Mexico border crossing is 2,26 miles. The maximum distance is 6,5 miles and the minimum distance is 0,1 mile.

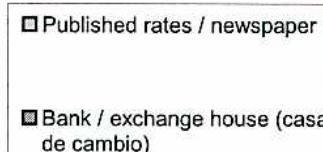
The average number of opening hours per day is 10 with a maximum of 24 and a minimum of 5.

The average number of opening days per week is 6 with a maximum of 10 and a minimum of 3.

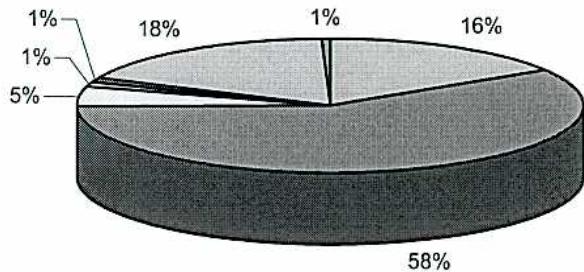
### All the respondents accept US Dollars in payment for goods or services.

### QY2: Conversion rate setting

**Conversion rate setting**

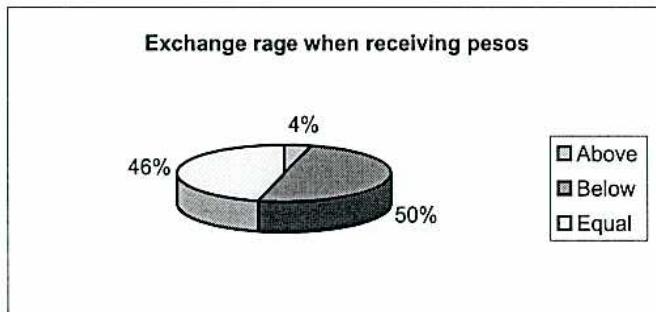


## Conversion rate setting



- Published rates / newspaper
- Bank / exchange house (casa de cambio)
- Dictated by corporate headquarters
- Fixed
- Other (specify)
- Published rates / newspaper and Bank / exchange house
- Bank / exchange house and Dictated by corporate headquarters

**QY3:** The exchange rate that companies use in their business compared to the rate that the business receives when they exchange Pesos.



**QY4: Time since business has been accepting U.S. Dollars**

The average time since a company has been accepting US Dollars is 8 years.

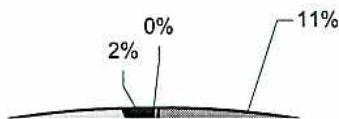
The maximum is 30 years and the minimum 1 year.

**QY5: Time spent in a week to exchange or dispose U.S. Dollars**

The average time used to exchange US Dollars in a week is 1 hour. Some companies take 6 hours while others take less than 1.

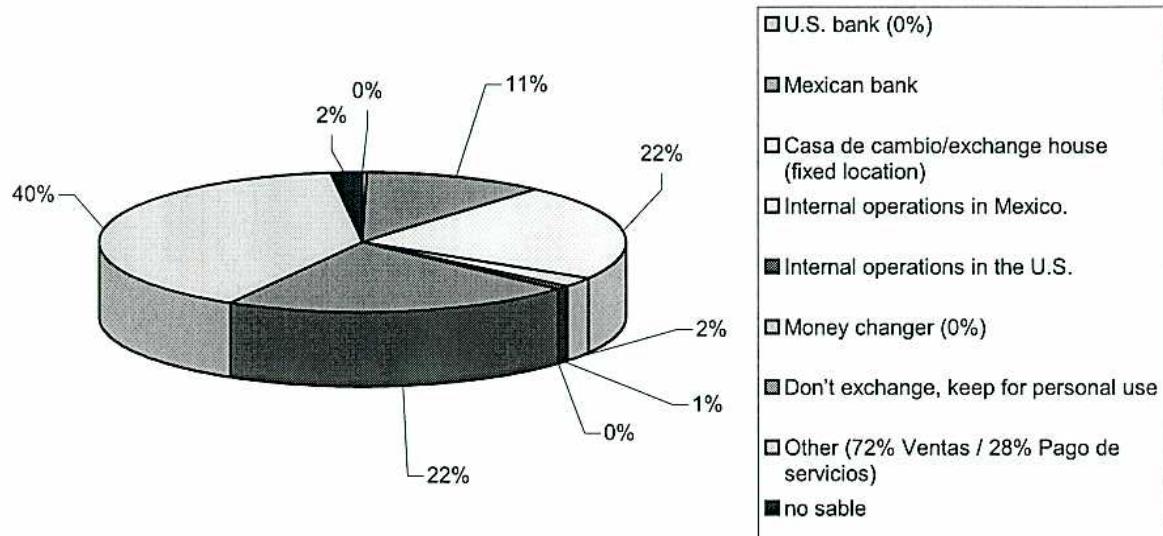
**QY6: U.S. Dollars disposal**

## US Dollars disposal



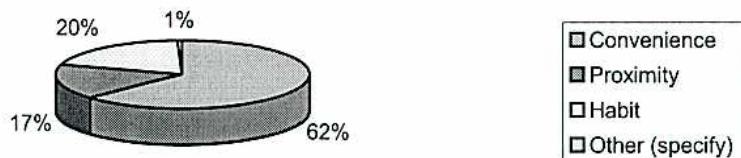
- U.S. bank (0%)
- Mexican bank
- Casa de cambio/exchange house (fixed location)
- Other (specify)

## US Dollars disposal



**QY7: Method determination for U.S. Dollar disposal**

**Method determination**



**QY8:** The average time in a week a firm spends on preparing to accept U.S. Dollars is 3/4 of hours.

**QY9:** The average percentage of sales is in U.S. Dollars is 24%

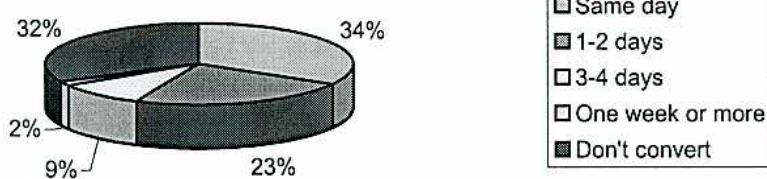
**QY10:** 99% of the respondents think that accepting U.S. Dollars enhance sales.

**QY11:** None of the interviewed companies charge a premium when accepting U.S. Dollars.

**QY12:** For all the interviewed companies, there is no limit on the purchase if using U.S. Dollars.

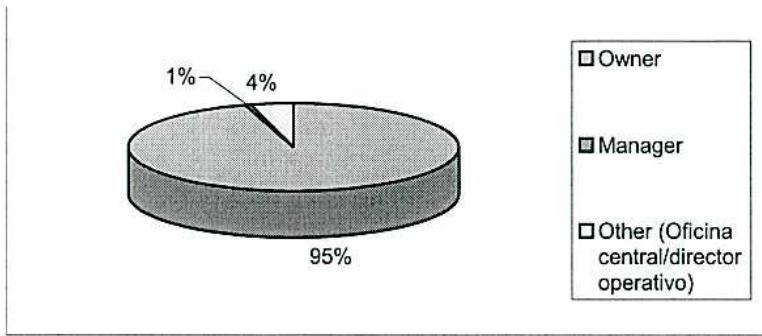
**QY13:** When does the conversion to Pesos take place?

**Time before converting**



**QY14: Person in charge of making the decision to accept U.S. Dollars.**

□ Owner



**QY15 Do you report any of your earned income from this business to any governmental authority?**

95% answered YES      5% answered NO

**QY16 Through the business, are you enrolled in social security coverage?**

48% answered YES      52% answered NO

**QY17 Does the business enroll its employees in social security?**

84% answered YES      16% answered NO

**QY18 a. Have you had a problem with accepting counterfeit US dollars in the past?**

21% answered YES      79% answered NO

**b. If YES, what percentage of accepted dollars have turned out to be counterfeit?**

The average pourcentage is 3%

**c. What actions (responses) have you taken to avoid accepting counterfeit US dollars?**

# U.S. Dollar Survey

**Pre-Interview:**Business Name \_\_\_\_\_  
Location (city) \_\_\_\_\_ State \_\_\_\_\_

Survey Date \_\_\_\_\_

Firm Category \_\_\_\_\_

Today's Exchange Rate \_\_\_\_\_

Position of Interviewee: Owner (1) \_\_\_\_\_ Manager (2) \_\_\_\_\_ Other (3) (specify) \_\_\_\_\_

Number of employees \_\_\_\_\_

How long has your business been in the local community \_\_\_\_\_ (years)

What type of good or services do you sell? \_\_\_\_\_

Is your firm a Local (1) \_\_\_\_\_ Regional (2) \_\_\_\_\_ National (3) \_\_\_\_\_ International (4) \_\_\_\_\_ company?

If Regional, National, or International, where is your firm's headquarters? \_\_\_\_\_ (city, country)

Does your firm have cross-border operations? Yes (1) \_\_\_\_\_ No (0) \_\_\_\_\_

What is the distance from your business location to the nearest US-Mexico border crossing? \_\_\_\_\_ (in miles)

How many hours a day are you open? \_\_\_\_\_

How many days a week are you open? \_\_\_\_\_

Q1: Do you accept U.S. Dollars in payment for goods and services: \_\_\_\_\_ Yes (1) \_\_\_\_\_ No (0)

**IF YES**

QY1: What is your conversion rate today \_\_\_\_\_

QY2: How do you set your conversion rate (circle response)

- a. published rates / newspaper
- b. bank / exchange house (*casa de cambio*)
- c. dictated by corporate headquarters
- d. fixed
- e. other (specify) \_\_\_\_\_

QY3: The exchange rate that you use in your business is \_\_\_\_\_ above (1), \_\_\_\_\_ below (2), or \_\_\_\_\_ equal (3) to the rate that the business receives when you exchange your Pesos?

QY4: How long has your business been accepting U.S. Dollars? \_\_\_\_\_ (years)

QY5: How much time in a week does your business spend on exchanging or disposing U.S. Dollars \_\_\_\_\_ (hours)

QY6: How do you dispose of your U.S. Dollars (circle response)

- a. U.S. bank
- b. Mexican bank
- c. *casa de cambio*/exchange house (fixed location)
- d. internal operations in Mexico.
- e. internal operations in the U.S.
- f. money changer (itinerant)
- g. don't exchange, keep for personal use
- h. other (specify) \_\_\_\_\_

QY7: How was this method of disposal for the U.S. Dollar decided? (circle response)

- a. convenience
- b. proximity
- c. habit
- d. other (specify) \_\_\_\_\_

QY8: How much time in a week does your firm spend on preparing to accept U.S. Dollars \_\_\_\_\_ (hours)

QY9: What percentage of sales is in U.S. Dollars? \_\_\_\_\_ %

QY10: Does accepting U.S. Dollars enhance sales? \_\_\_\_\_ Yes (1) \_\_\_\_\_ No (0)

QY11: a. Do you charge a premium (e.g., fee or above market rate) when accepting U.S. Dollars? \_\_\_\_\_ Yes (1) \_\_\_\_\_ No (0)

b. If YES: How much \_\_\_\_\_ (%)

QY12: a. Is there a limit on the purchase if using U.S. Dollars? \_\_\_\_\_ Yes (1) \_\_\_\_\_ No (0)

b. If YES: How much \_\_\_\_\_ (%)

QY13: When does the conversion to Pesos take place (circle response)

- a. same day
- b. 1-2 days
- c. 3-4 days
- d. one week or more
- e. don't convert

QY14: Who in your company makes the decision to accept U.S. Dollars? (circle response)

- a. owner \_\_\_\_\_
- b. manager \_\_\_\_\_
- c. other (specify) \_\_\_\_\_

What are your average sales per week? \_\_\_\_\_ (in Pesos)

QY15 Do you report any of your earned income from this business to any governmental authority? Yes(1) \_\_\_\_\_ No(2) \_\_\_\_\_

QY16 Through the business, are you enrolled in social security coverage? Yes(1) \_\_\_\_\_ No(2) \_\_\_\_\_

QY17 Does the business enroll its employees in social security? Yes(1) \_\_\_\_\_ No(2) \_\_\_\_\_

QY18 a. Have you had a problem with accepting counterfeit US dollars in the past? Yes(1) \_\_\_\_\_ No(2) \_\_\_\_\_

b. If YES, what percentage of accepted dollars have turned out to be counterfeit? \_\_\_\_\_ %

c. What actions (responses) have you taken to avoid accepting counterfeit US dollars?

IF NO

QN1: a. Has your business ever considered accepting U.S. Dollars? Yes(1) No(0)

b. If YES, what are your reasons for not doing so? (circle response)

- a) haven't done it before (lack of experience)
- b) too risky
- c) no customer demand for this service
- d) other (specify) \_\_\_\_\_

QN3: Is accepting U.S. Dollars to complicated of a process? Yes (1) No (0)

QN4: Is there a company policy that says not to accept U.S. Dollars? Yes (1) No (0)

QN5: Is accepting U.S. Dollars inconvenient? Yes (1) No (0)

QN6: Do you think accepting U.S. Dollars would increase sales? Yes (1) No (0)

QN7: Do you think you would lose money by accepting U.S. Dollars? Yes (1) No (0)

QN8: If yes, why would you lose money? (circle response)

- a) costs too much money to exchange currencies
- b) unpredictability of exchange rates
- c) the U.S. Dollar doesn't buy much
- d) other (specify) \_\_\_\_\_

QN9: Who in your company makes the decision to reject U.S. Dollars? (circle response)

- a. owner \_\_\_\_\_
- b. manager \_\_\_\_\_
- c. other (specify) \_\_\_\_\_

What are your average sales per week? \_\_\_\_\_ (in Pesos)

QN10: Do you report any of your earned income from this business to any governmental authority? Yes(1)    No(2)   

QN11: Through the business, are you enrolled in social security coverage? Yes(1)    No(2)   

QN12: Does the business enroll its employees in social security? Yes(1)    No(2)   

QN13: a. Have you had a problem with accepting counterfeit US dollars in the past? Yes(1)    No(2)   

b. If YES, what percentage of accepted dollars have turned out to be counterfeit? %

c. What actions (responses) have you taken to avoid accepting counterfeit US dollars?

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**Pre-Entrevista:**Nombre del Negocio \_\_\_\_\_  
Lugar (Ciudad) \_\_\_\_\_ Estado \_\_\_\_\_

Fecha de Entrevista \_\_\_\_\_

Categoria del Negocio \_\_\_\_\_  
Taza de Conversion Actual \_\_\_\_\_

Posicion del Entrevistado: Dueño (1) \_\_\_\_\_ Gerente (2) \_\_\_\_\_ Otro (3) (especifique) \_\_\_\_\_

Numero de trabajadores \_\_\_\_\_

Cuantos anos tiene su negocio de operar en la comunidad local \_\_\_\_\_ (anos)

Que tipo de productos o servicios ofrece su negocio?

Es su negocio Local (1) \_\_\_\_\_ Regional (2) \_\_\_\_\_ Nacional (3) \_\_\_\_\_ Internacional (4) \_\_\_\_\_

Si es Regional, Nacional, o Internacional, donde se localiza su oficina principal? \_\_\_\_\_ (ciudad, pais)

Hace su negocio operaciones con el otro lado de la frontera? Si (1) \_\_\_\_\_ No (0) \_\_\_\_\_

Cual es la distancia desde su negocio hasta el cruce con la frontera de EU-Mexico mas cercano? \_\_\_\_\_ (en millas)

Cuantas horas al dia estan abiertos? \_\_\_\_\_

Cuantos dias a la semana estan abiertos? \_\_\_\_\_

Q1: Aceptan el **Dolar Americano** com forma de pago para productos y servicios: \_\_\_\_\_ Si (1) \_\_\_\_\_ No (0) \_\_\_\_\_**Si la respuesta es SI**

QY1: Cual es la taza de conversion hoy \_\_\_\_\_

QY2: Como establece su taza de conversion (circule la respuesta)

- a. tazas publicadas/ diarios
- b. bancos/ casas de cambio
- c. dictada por la oficina principal
- d. fijas
- e. otra (especifique) \_\_\_\_\_

QY3: La taza de cambio que utiliza en su negocio es mayor (1), menor (2), o igual (3) que la taza de cambio que recibe cuando cambia el **Dolar Americano**?QY4: Cuantos anos tiene su negocio de aceptar el **Dolar Americano**? \_\_\_\_\_ (anos)QY5: Cuanto tiempo a la semana le toma a su negocio cambiar o disponer del **Dolar Americano** \_\_\_\_\_ (horas)QY6: Como dispone del **dolar Americano** (circule la respuesta)

- |                                     |                                     |
|-------------------------------------|-------------------------------------|
| a. Banco Estadounidense             | b. Banco Mexicano                   |
| c. casa de cambio (lugar fijo)      | d. operaciones internas en Mexico.  |
| e. operaciones internas en los E.U. | f. cambiador de monedas (itinerant) |
| g. no se cambian, para uso personal | h. otro (especifique) _____         |

QY7: Como fue seleccionado este metodo de disponer del **dolar Americano**? (circule la respuesta)

- a. conveniencia
- b. proximidad
- c. habito
- d. otro (especificue) \_\_\_\_\_

QY8: Cuanto tiempo a la semana le toma a su negocio para prepararse a recibir el **dolar Americano** \_\_\_\_\_ (horas)QY9: Que porcentaje de sus ventas es en **dolar Americano**? \_\_\_\_\_ %QY10: Cuando acepta el **dolar Americano** sus ventas mejoran? \_\_\_\_\_ Si (1) \_\_\_\_\_ No (0) \_\_\_\_\_QY11: a. Cobran una prima (cuota o taza elevada) cuando acepta el **dolar Americano**? \_\_\_\_\_ Si (1) \_\_\_\_\_ No (0) \_\_\_\_\_

- b. Si: Cuanto \_\_\_\_\_ (%)

QY12: a. Hay algun limite en la compra cuando acepta el dolar Americano? \_\_\_\_\_ Si (1) \_\_\_\_\_ No (0) \_\_\_\_\_

- b. Si: Cuanto \_\_\_\_\_ (%)

QY13: Cuando se da la conversion a Pesos (circule la respuesta)

- a. el mismo dia
- b. 1-2 dias
- c. 3-4 dias
- d. una semana o mas
- e. no se convierte

QY14: Quien en su negocio toma la decision de aceptar el **dolar Americano**? (circule la respuesta)

- a. dueño \_\_\_\_\_
- b. gerente \_\_\_\_\_
- c. otro (especificue) \_\_\_\_\_

Cual es su promedio de ventas por semana? \_\_\_\_\_ (en Pesos)

QY15: Reporta usted parte de sus ingresos a alguna autoridad gubernamental? Si(1) \_\_\_\_\_ No(2) \_\_\_\_\_

QY16: A traves del negocio, tiene usted cobertura de seguro social? Si(1) \_\_\_\_\_ No(2) \_\_\_\_\_

QY17: Ofrece el negocio seguro social para sus empleados? Si(1) \_\_\_\_\_ No(2) \_\_\_\_\_

QY18: a. Ha tenido algun problema con dolares Americanos falsificados en el pasado? Si(1) \_\_\_\_\_ No(2) \_\_\_\_\_

- b. Si la respuesta es Si, que porcentaje de los dolares aceptados resultaron falsos? \_\_\_\_\_ %

- c. Que acciones ha tomado para prevenir que se acepte dinero falsificado?

Si la respuesta es NO

QN1: Ha considerado su negocio en aceptar el dolar Americano? Si(1) No(0)

QN2: SI, cuales son sus razones? (circule la respuesta)

- a) no se ha hecho anteriormente (falta de experiencia)
- b) muy riesgoso
- c) no hay demanda para este servicio
- d) otro (especifique) \_\_\_\_\_

QN3: Aceptar el **dolar Americano** es un proceso muy complicado? Si (1) No (0)

QN4: Tiene alguna norma en su negocio que le prohíbe aceptar el **dolar Americano**? Si (1) No (0)

QN5: Es inconveniente aceptar el dolar Americano? Si (1) No (0)

QN6: Cree usted que sus ventas aumentarian si acepta el **dolar Americano**? Si (1) No (0)

QN7: Cree usted que podria perder dinero si acepta el **dolar Americano**? Si (1) No (0)

QN8: Si, por que perderia dinero? (circule la respuesta)

- a) cuesta mucho cambiar la moneda
- b) las tasas de conversion son impredecibles
- c) el dolar Americano no tiene mucho valor
- d) otro (especifique) \_\_\_\_\_

QN9: Quien en su negocio toma la decision de no aceptar el **dolar Americano**? (circule su respuesta)

- a. dueño \_\_\_\_\_
- b. gerente \_\_\_\_\_
- c. otro (especifique) \_\_\_\_\_

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Cual es su promedio de ventas por semana? \_\_\_\_\_ (en Pesos)

QY10: Reporta usted parte de sus ingresos a alguna autoridad gubernamental? Si(1)    No(2)   

QY11: A traves del negocio, tiene usted cobertura de seguro social? Si(1)    No(2)   

QY12: Ofrece el negocio seguro social para sus empleados? Si(1)    No(2)   

QY13: a. Ha tenido algun problema con dolares Americanos falsificados en el pasado? Si(1)    No(2)   

d. Si la respuesta es Si, que porcentaje de los dolares aceptados resultaron falsos?   %

e. Que acciones ha tomado para prevenir que se acepte dinero falsificado?

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