

**QUANTITATIVE ANALYSIS OF THE AVAILABILITY OF  
MINORITY- AND WOMEN-OWNED BUSINESSES  
AND THEIR UTILIZATION BY THE  
CORPUS CHRISTI REGIONAL TRANSPORTATION AUTHORITY**

Conducted for



Corpus Christi Regional Transportation Authority

by

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# TABLE OF CONTENTS

	Page
<b>EXECUTIVE SUMMARY</b> .....	iii
<b>ACKNOWLEDGEMENT AND DISCLAIMER</b> .....	v
<b>1. INTRODUCTION</b> .....	1
1.1 Background .....	1
1.2 Objective .....	2
1.3 RTA Profile .....	2
1.4 DBE Program .....	3
1.5 Prior Studies .....	4
<b>2. RESEARCH METHODOLOGY</b> .....	6
2.1 Market Definition .....	6
2.2 Data .....	7
2.3 Disparity Measurement .....	8
2.4 Availability Measurement .....	9
<b>3. DISPARITY IN CORPUS CHRISTI</b> .....	13
3.1 Demographic Profile .....	13
3.2 Availability of Minority and Women-Owned Firms .....	14
3.3 Availability by Industry Division .....	19
3.4 Business Growth .....	19
3.5 Disparity Measures .....	21
<b>4. DBE PARTICIPATION IN RTA PROCUREMENT</b> .....	28
4.1 DBE Participation .....	28
4.2 RTA Disparity Indexes .....	30
<b>5. SUMMARY AND CONCLUSION</b> .....	33

## TABLE OF CONTENTS (Continued)

	<b>Page</b>
<b>FIGURE</b>	
Figure 1: Disparity in Business Formation and Procurement Processes .....	10
<b>TABLES</b>	
Table 1: Demographic Distribution, Corpus Christi MSA, 2005 .....	13
Table 2a: Minority/Women Availability by NAICS Industry, 2002 .....	15
Table 2b: Minority/Women Availability by NAICS Industry, 2002 (cont'd) .....	16
Table 2c: Minority/Women Availability by NAICS Industry, 2002 (cont'd) .....	17
Table 2d: Minority/Women Availability by NAICS Industry, 2002 (cont'd) .....	18
Table 3: Business Growth in Corpus Christi MSA, 1987-2002 .....	20
Table 4: Historical Comparison of Firm Availability, Percentage of Total Firms, 1987-2002 .....	21
Table 5a: Disparity Index by Minority Status and Industry, Corpus Christi .....	23
Table 5b: Disparity Index by Minority Status and Industry, Corpus Christi (cont'd) .....	24
Table 5c: Disparity Index by Minority Status and Industry, Corpus Christi (cont'd) .....	25
Table 5d: Disparity Index by Minority Status and Industry, Corpus Christi (cont'd) .....	26
Table 6: Historical Comparison of Disparity Indexes, All Industries .....	27
Table 7: Overall DBE Participation by RTA Payments, FY 2001-06 .....	28
Table 8: DBE Participation by RTA Payments, 2005-06 .....	29
Table 9: Disparity Indexes for RTA by DBE status, Gender, and Ethnicity .....	31
<b>REFERENCES</b> .....	36
<b>APPENDIX</b> .....	37
RTA DBE Eligibility Criteria .....	37

# EXECUTIVE SUMMARY

## Disparity Study for Corpus Christi and the RTA

This study investigates the availability of minority- and women-owned businesses in the Corpus Christi MSA and the extent to which these businesses are utilized by the overall marketplace in Corpus Christi and, in particular, by the Regional Transportation Authority. This report serves as an update to the previous study by Marshall (1994) for the RTA and provides an understanding of possible changes in the business environment for minority and female business owners in the past two decades or so.

- The RTA has established a Disadvantaged Business Enterprise (DBE) program as required by the U.S. Department of Transportation, and the Authority has consistently met its annual DBE participation goal for federally supported contracts. This study investigates disparity between DBEs and non-DBEs in all RTA contracting and procurement activities by comparing their participation with their availability in the Corpus Christi MSA.
- Based on the 2002 Census data for the Corpus Christi MSA, minority- and women-owned businesses make up approximately 33 percent of all businesses in the economy but they account for only 5 percent of all business sales. As such, the disparity index—the ratio of utilization to the ratio of availability—is 0.15 on average for these businesses. In particular, the disparity indexes for Hispanic- and women-owned businesses are below 0.2. Using the relevant data in the 1994 RTA disparity report as a benchmark, these estimates suggest that significant *underutilization* of minority- or women-owned businesses remains as rampant in Corpus Christi today as it was two decades ago.
- For RTA contracting and procurement activities beginning in FY 2001, DBEs have accounted for an average of 19 percent of annual expenditure dollars—an outcome consistent with its DBE goal for federally funded projects. However, the disparity index for DBEs, which compares their participation with their availability in the market, is 0.56 during the survey period in 2005-06. This figure suggests that there are almost twice as many minority- and women-owned businesses available in Corpus Christi than what their

share in RTA expenditures would suggest. The extent of underutilization is the greatest for businesses owned by Hispanic men, whose disparity index is 0.13.

- As with the 1994 RTA disparity report, research in the present study draws on the narrow statistical standards established by the Court in *Croson*. Accordingly, investigation is limited to the outstanding population of minority- and women-owned businesses, and thus excluding any “discouraged” or “deterred” businesses that have never entered or left the marketplace due to the possible presence of inequitable treatments. As a result of this methodology, the findings most likely *understate* the “true” extent of business disparities in the Corpus Christi economy at large.

## **ACKNOWLEDGEMENT AND DISCLAIMER**

This study was commissioned by the Corpus Christi Regional Transportation Authority through the Office of Community Outreach at Texas A&M University-Corpus Christi in April 2007. The report was completed in November 2007. This study benefited from the data and related disparity studies provided by Mr. Lamont Taylor, Director of Business Development & Compliance of the Corpus Christi Regional Transportation Authority. Ms. Carole Peterson, Director of Workforce Development at the University's Office of Outreach, provided assistance in project coordination.

The contents of this report reflect the views of the principal investigator, who is solely responsible for the accuracy of the data and findings presented therein. The contents do not necessarily reflect the official views or policies of Texas A&M University-Corpus Christi or the Corpus Christi Regional Transportation Authority.

# 1. INTRODUCTION

## 1.1 Background

The Corpus Christi Regional Transportation Authority (hereafter, “RTA”) has retained Texas A&M University-Corpus Christi to conduct a fact-finding disparity study that analyzes the disparity between the availability and participation of minority- and women-owned businesses in Corpus Christi. Those business vendors of interest are generally classified as Disadvantaged Business Enterprises (DBEs).

Between 2000 and 2006, the RTA received an average of over \$5 million per year in federal grants for operating and capital expenses. As a condition of receiving federal funding from the Federal Transit Administration (FTA) of the U.S. Department of Transportation (DOT), the RTA has established a DBE program to ensure maximum opportunities for DBEs to participate in DOT contracts for supplies and services. Each year the RTA reports to the FTA the status of its DBE program. Since the development of the DBE program, the RTA has reported that it has consistently met its annual goal of DBE participation in federally supported contracts.

Rather than confining to contracts supported by federal funds, this report presents findings on the utilization of DBE firms versus non-DBE firms for *all* RTA contracting and procurement activities, whether funded with federal dollars or non-federal dollars. To this end, the study compiles and documents data on the availability of minority- and women-owned businesses in the Corpus Christi metropolitan statistical area (MSA) as well as the RTA utilization of these businesses as compared to other businesses.

## **1.2 Objective**

The objective of this report is to document quantitative evidence on disparity between the availability and utilization of minority- and women-owned businesses relative to other businesses in the Corpus Christi MSA. The scope of the study includes analyzing data on the availability of minority- and women-owned businesses in the Corpus Christi economy and the extent to which these businesses are utilized by the RTA and , more generally, by the marketplace in Corpus Christi. A similar disparity study for the RTA was first completed by Marshall (1994) in 1994. As such, the present study not only serves as an update to the previous report with most recently available data, but it also combines the data in these two studies to provide an understanding of possible changes in the business environment for minority and female business owners in the Corpus Christi during the last two decades or so.

## **1.3 RTA Profile**

The RTA was created in 1985 by majority vote of Corpus Christi taxpayers in order to provide accessible and affordable transportation to residents within the Corpus Christi MSA. Today, the Authority remains the sole provider of public transportation services in Corpus Christi. Its service area includes all of Nueces County (except Petronila) and part of San Patricio County. Nueces County includes the cities of Agua Dulce, Bishop, Corpus Christi, Driscoll, Port Aransas, Robstown, and some unincorporated areas. The service area in San Patricio County includes the cities of Gregory and San Patricio. The Authority's total service area includes 838 square miles and has a population of 317,015.

## 1.4 DBE Program

Since 2003, DOT has required transportation agencies receiving more than \$250,000 on federally aided grants to implement a DBE program. The main purpose of this program is to help create a “level playing field” for DBEs in DOT sponsored projects. The RTA, which receives federal funding from the DOT, is required to implement this program. Under this program, the RTA submits an annual goal for DBE participation each year to the FTA for approval, and the amount of contract and subcontract awards to DBEs must meet the approved DBE goal. For FY 2007 and FY 2008, the DBE participation goal on federally assisted contracts and projects is 15 percent. For earlier fiscal years, the goal was 20 percent since the DBE program began. These goals have been established as a result of the RTA’s 1994 disparity study (Marshall, 1994) and DOT’s goal setting methodology established in 1999. The RTA has consistently met or exceeded its annual DBE goal.<sup>1</sup>

A minority- or women-owned firm is not automatically considered a DBE according to the DOT. A DBE status requires an application process with eligibility criteria listed in the Appendix. Other than implementing the DBE program, the RTA is also responsible for certifying DBEs in 10 counties in the Coastal Bend: Aransas, Bee, Goliad, Jim Wells, Karnes, Kleberg, Live Oak, Nueces, Refugio, and San Patricio. Because DBE certification is not required for any minority- or woman-owned firm to do business with the RTA, quantitative findings based on DBE data, including those presented in this report, might *understate* the “true” participation rate of minority- or women-owned businesses in the Corpus Christi market area.

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<sup>1</sup> Based on RTA expenditure data, the total amount awarded to DBEs on federal contracts averaged at 56.6% annually during the period between FY 2001-06.

## 1.5 Prior Studies

This report essentially serves as an update to volume three of an earlier study, entitled “Availability and Participation of Disadvantaged Business Enterprises in the Corpus Christi, Texas Metropolitan Statistical Area.” That disparity study was completed in 1994 by Ray Marshall, Inc., for the RTA. Volume three of the final report is “Statistical Analysis of the Availability of Disadvantaged Business Enterprises (DBEs) in the Corpus Christi Area.” The study concludes that “it is apparent that DBEs of all types face large disparities in the overall Corpus Christi MSA economy... The share of market sales going to DBEs typically running anywhere between one-tenth and two-thirds of their respective shares of the business population. Surely, such disparities limit the ability of existing DBEs to compete effectively in the Corpus Christi MSA’s economic markets and thwart the development of new minority-owned and women-owned business enterprises” (Marshall, 1994, Executive Summary, 26-27).

Subsequent to the 1994 RTA disparity study, another disparity study (Marshall, 1999) was completed in 1999 for the City of Corpus Christi. Similar to the RTA, the City has formally encouraged the participation of minority- or women-owned businesses in its contracting and procurement processes since 1983. In addition to analyzing the City’s contracting and procurement data, the 1999 study measure disparities in the private sector of Corpus Christi based on the 1990 decennial Census data. In comparison with the findings in the 1994 report, evidence of disparities in the 1999 report is weaker, except for Black-owned firms.

In an attempt to draw comparisons with earlier findings, the present study employs a research methodology and datasets similar to those in the above two earlier studies. By combining findings in the earlier studies with currently available data, this strategy will enable us

to understand possible changes in the extent of disparities for minority- and women-owned businesses in the Corpus Christi economy at large during the last two decades or so.

## 2. RESEARCH METHODOLOGY

### 2.1 Market Definition

The first step in assessing the availability of minority- and women-owned businesses for the RTA is to define the relevant market for the Authority's contracting and procurement activities. A market has a product and a geographic dimension, both of which are considered in estimating business availability in this study. Geographically, the relevant market definition is the Corpus Christi MSA. The Corpus Christi MSA comprises of the counties of Nueces, San Patricio and Aransas. Following the previous RTA disparity study (Marshall, 1994), this geographical scope of the supplier market overlaps with the RTA's service area, even though this overlap is not necessary. In that earlier study, the market area was determined by analyzing data of RTA vendors and payments. The majority of DBE vendors were located in the Corpus Christi MSA. This condition remains largely the same today. Analyses are also conducted by industry category, as defined by the North American Industry Classification System (NAICS).

According to the DOT, a DBE is a business that is at least fifty-one percent (51%) owned by one or more individuals who are both socially and economically disadvantaged. Those individuals are primarily women or members of a minority group, i.e., Blacks or African Americans, Hispanic Americans, Native Americans or American Indians and Alaska Natives, and Asian and Pacific Island Americans. However, as pointed out above, a minority- or woman-owned small business is not considered a DBE until it passes a certification process.<sup>2</sup> Since not all minority- and women-owned businesses that qualify for the DBE status are certified, the statistical findings will systematically *understate* the extent of participation of minority- and women-owned firms in RTA procurement.

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<sup>2</sup> See the Appendix for more detailed eligibility criteria stated by the RTA.

## 2.2 Data

Following Marshall (1994, 1999), the availability and participation data for local businesses are drawn from the Corpus Christi MSA as the geographic area. These data are used to analyze disparities in the private sector of Corpus Christi at large. The available pool of vendors and market share figures are derived using the Census Bureau's 2002 *Survey of Business Owners* (SBO). The SBO surveys are conducted every five years. The 2002 survey is the latest and most comprehensive published data source available for such businesses. Those businesses' market shares in RTA procurement and contracting activities are calculated using RTA's payment data in 2005 and 2006, as discussed in more detail in Section 4 below.

In line Marshall (1994, 1999), disparity analyses will be conducted for six racial/gender groups: (1) Hispanic, (2) Black or African Americans, (3) Asians, (4) American or native Indians, (5) women, (6) all minority groups. The 1994 study reports data for industry division categorized by the Standard Industrial Classification (SIC). The government has replaced the SIC with NAICS beginning 1997. Accordingly, the present study reports data for 20 sector divisions based on the 2002 NAICS instead of the SIC. The 20 industrial divisions are: (1) forestry, fishing and hunting, (2) mining, (3) utilities, (4) construction, (5) manufacturing, (6) wholesale trade, (7) retail trade, (8) transportation and warehousing, (9) information, (10) finance and insurance, (11) real estate, rental, and leasing, (12) professional, scientific, and technical services, (13) management of companies, (14) administrative, support, waste management, and remediation service, (15) educational services, (16) health care and social assistance, (17) arts, entertainment, and recreation, (18) accommodation and food services, (19) other services (except public administration), and (20) industries not classified.

## 2.3 Disparity Measurement

Standard disparity analysis compares utilization of businesses in a minority group, such as DBEs, with their availability. The most popular measure in such analysis is the disparity index, which is the ratio of a measure of business utilization over availability:

$$\text{Disparity Index} = \frac{\text{Utilization of DBEs}}{\text{Availability of DBEs}}. \quad (1)$$

The benchmark for the disparity index is 1.0, which indicates the absence of disparity as the utilization of businesses is perfectly proportionate to their availability. An index less than 1.0 indicates under-utilization, and an index larger than 1.0 indicates over-utilization.

Drawing on the common practice in major disparity studies (e.g., Management of America, 2001; NERA Economic Consulting, 2005, 2006), business utilization of a firm by the RTA is measured as the proportion of business dollars paid to that firm. The definition of DBE availability is somewhat ambiguous, but it is generally measured by the share of DBEs among all existing firms within a relevant market.

Using business receipts or sales revenues as a measure of business activity, the disparity index for DBEs can be more precisely measured as:

$$\text{Disparity Index} = \left( \frac{\text{DBE business receipts}}{\text{Total business receipts}} \right) \bigg/ \left( \frac{\text{Number of DBEs}}{\text{Total number of firms}} \right). \quad (2)$$

Simply put, the index reveals how the market share of DBEs compares with the share of DBEs in the relevant market's population of businesses. For example, a minority group owns 10 percent

of the available firms in an area but receives 8 percent of business dollars in that market. The disparity index for that minority group is, therefore, 0.8 ( $8 \div 10 = 0.8$ ).

An alternative way to understand the meaning of the disparity index is to rearrange the terms in equation (2) so that it is interpreted as a comparison between the average receipt for DBEs (in the numerator) and the average receipt for all locally available firms (in the denominator):

$$\text{Disparity Index} = \left( \frac{\text{DBE business receipts}}{\text{Number of DBEs}} \right) \bigg/ \left( \frac{\text{Total business receipts}}{\text{Total number of firms}} \right) \quad (3)$$

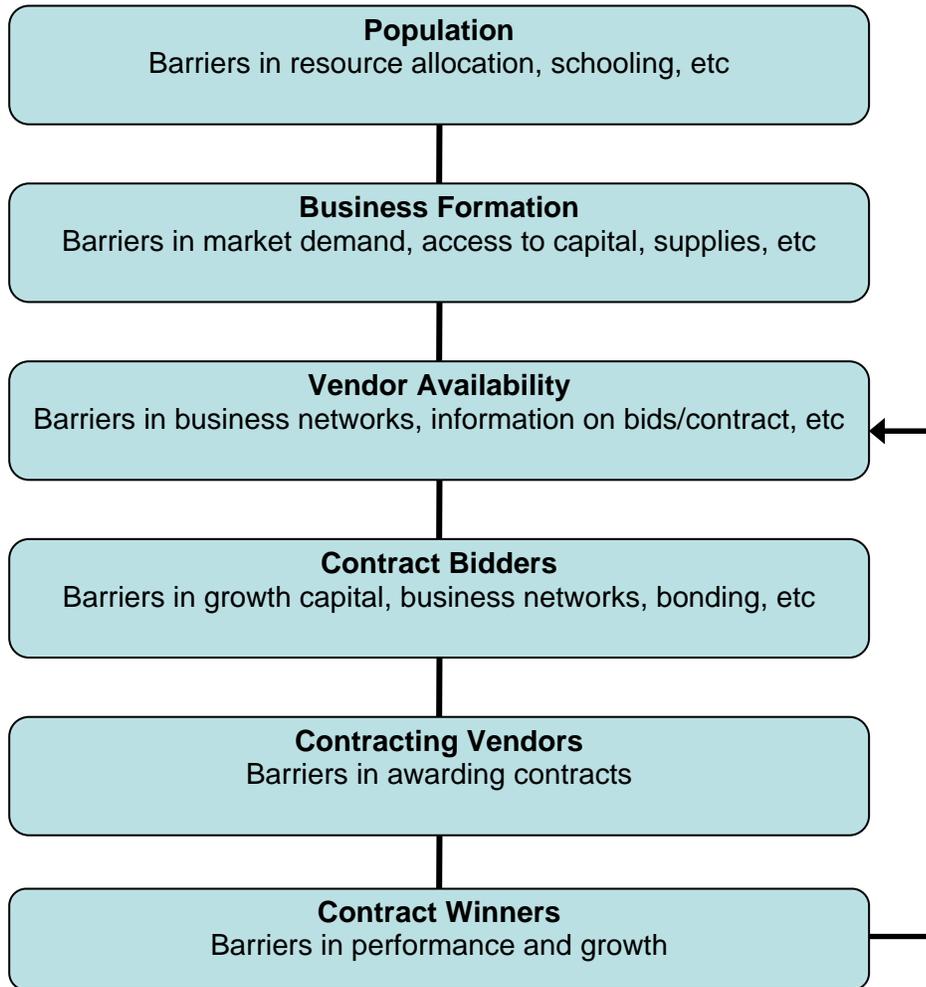
According to this expression, the smaller the average receipt for DBEs relative to the average receipt for all firms in the market, the smaller is the index.

The same formula can be applied to quantify business disparities in the Corpus Christi MSA economy at large instead of RTA contractors and suppliers. In this case, disparity indexes are computed using the Census data on a particular minority group in the Corpus Christi MSA instead of using the DBE status.

## **2.4 Availability Measurement**

There is no best measure of availability, however. As pointed out by Enchautegui *et al.* (2007), firms differ in capacity and thus their availability. In addition, there are many stages in the business formation and procurement processes at which DBEs may be treated differently from non-DBEs. As illustrated in Figure 1, disparity can exist far beyond the marketplace for contracting and procurement activities.

**Figure 1: Disparity in Business Formation and Procurement Processes.**



Looking at contract winners—the last stage of the economic outcome—may *understate* the extent of disparity in a market. Disparity might exist within the general population, in which minority groups and women might receive underinvestment in training and human capital, leading to disparity in productivity or business formation ability. School or community segregation might contribute to disparity in human capital investment. In workforce employment, disparity might exist in promotions and training.

In the process of business formation, potential business owners might be discouraged by anticipated market or lending disparity. Among business owners, barriers in growth capital or business networks might exist to affect the “availability” of minority- and women-owned businesses to perform contracting work. In addition to the effect on the level of DBE certification from minority and female business owners, anticipated disparity in the contracting process might also discourage business formation altogether at the beginning. Among potential vendors, barriers might still exist in awarding contracts to DBEs. Even after awarding contracts, there can still be disparity in treatment that may affect long-term growth and success of DBEs.

The more narrowly a measure for “availability”, e.g., only firms that appear on a vendor list, the more is the bias toward a low disparity index because this measure rules out minority- or women-owned firms that have been discouraged from doing business or bidding on a contract. On the contrary, a broad availability measure that includes all minority firms is less likely to build in past and present treatments from the local business community or the RTA. However, such a measure may include firms that may not be ready, willing or able to do business.

In line with Marshall (1994, 1999) and other disparity studies, the present study analyzes disparities of minority groups and DBEs using the narrow statistical standards established by the

*United States Supreme Court in City of Richmond v. J.A. Croson* (1989).<sup>3</sup> In this case, the scope of statistical comparisons will be limited to the outstanding population of DBEs, and thus excluding any “discouraged” business owners that have never entered the local market or “deterred” business owners who have left the local market altogether due to the possible presence of inequitable treatments. As a result, the quantitative evidence to be presented in this report will likely *understate* the “true” extent of disparities in the Corpus Christi MSA economy or in RTA contracting and procurement activities.

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<sup>3</sup> See Volume 3 of Marshall (1994) for a detailed discussion of the *Croson* case and its implications.

### 3. DISPARITY IN CORPUS CHRISTI

#### 3.1 Demographic Profile

To better understand disparities in business formation and performance, it is important to first understand the composition of the general population and workforce in the Corpus Christi MSA. Table 1 summarizes the key demographic distribution for the general population and the workforce in the area. According to the 2005 Census, females make up 51 percent of the overall population and nearly 46 percent of the civilian workforce. Such figures are comparable to those for the U.S. as a whole.

**Table 1: Demographic Distribution, Corpus Christi MSA, 2005.**

Corpus Christi MSA	Population	Labor Force
Total population	413,553	190,246
Female	51.0%	45.8%
White, non-Hispanic	39.2%	45.1%
Hispanic or Latino origin	55.1%	48.7%
Black or African American	3.9%	3.2%
American Indian and Alaska Native	0.8%	0.4%
Asian	1.4%	1.4%
Native Hawaiians and Other Pacific Islanders	0.2%	0.03%
Persons reporting two or more races	0.9%	0.0%

**Source:** U.S. Census Bureau, *2005 American Community Survey*.

Hispanic or Latino origin is the dominant demographic group, accounting for 55 percent of the area overall population and 49 percent of the workforce. By comparison, the share of Hispanics in the U.S. total population is 15 percent. The population share of non-Hispanic Whites in Corpus Christi is slightly below 40 percent, as compared to the U.S. average of over

76 percent. Similarly, Blacks or African Americans account for a smaller share (4%) of the overall population in Corpus Christi than in the nation as a whole (13%). The other demographic groups, including Asians, Native Americans (American Indians and Alaska Natives), and Native Hawaiians and other Pacific Islanders, collectively account for less than 3 percent of the area population. Such demographic breakdowns by race or ethnicity are typical of cities near the U.S.-Mexico border.

### **3.2 Availability of Minority- and Women-Owned Firms**

Tables 2a – 2d together contain a detailed description of the distribution of minority- and women-owned firms in the Corpus Christi MSA. The data are based on the 2002 SBO surveys for NAICS industry divisions. A “(D)” indicates that the data were not disclosed by the Census Bureau due to confidentiality restrictions. The “all firms” designation indicates firms with employees (employer firms) and without employees (non-employer firms). Table 2a presents data for all firms in the Corpus Christi MSA and firms owned by any of the minority groups (Hispanics, Blacks or African Americans, Asian Americans and American Indians). Table 2b presents corresponding data for women- and Hispanic-owned firms, Table 2c for Black- and Asian-owned firms, and Table 2d for Native American firms.

The number of all Corpus Christi firms in 2002, with or without employees, was 31,596, which represented an over 50 percent growth from 19,944 in 1987. Of this total number of firms, 10,546 (32%) were minority-owned, and 8,640 (27%) were women-owned businesses. Among all minority-owned firms, 2,642 (25%) were owned by women. Similar to the general demographic patterns, Hispanic-owned firms constituted the largest single group of minority-owned firms in Corpus Christi. Together, they accounted for 8,896 (28%) of all area businesses.

**Table 2a: Minority/Women Availability by NAICS Industry, 2002.**

Corpus Christi MSA	All firms		Firms with Paid Employees			
	Number of Firms	Receipts (\$1,000)	Number of Firms	Receipts (\$1,000)	Number of Employees	Annual Payroll (\$1,000)
<b>ALL FIRMS</b>						
All Industries	31,592	28,279,691	7,855	27,301,382	23,737	3,664,136
Forestry, fishing, etc.	667	(D)	38	30,064	629	5,162
Mining	1,047	2,235,590	175	2,141,192	872	112,279
Utilities	27	863,138	17	814,725	10	44,214
Construction	4,523	1,473,872	708	1,292,212	3,815	351,812
Manufacturing	555	11,119,294	274	11,107,298	281	616,193
Wholesale trade	852	1,956,052	496	1,953,444	356	174,969
Retail trade	3,543	3,985,268	1,106	3,883,700	2,437	358,229
Transportation & warehousing	1,145	1,245,121	260	1,225,991	885	151,113
Information	296	398,911	104	(D)	192	(D)
Finance & insurance	1,350	884,697	448	818,457	902	146,962
Real estate, etc.	2,725	665,849	451	504,368	2,274	108,639
Professional services, etc.	3,531	695,602	907	608,023	2,624	217,104
Management of companies	52	43,167	52	43,167	0	60,999
Administrative, support etc.	2,321	485,539	393	(D)	1,928	(D)
Educational services	434	48,493	68	46,009	366	21,342
Health care & social assistance	2,920	1,994,378	974	1,935,520	1,946	695,429
Arts, entertainment, etc.	956	105,946	136	(D)	820	(D)
Accommodation & food services	1,255	612,735	768	592,095	487	157,282
Other services	3,479	327,182	566	262,143	2,913	81,671
Industries not classified	45	(D)	45	(D)	(D)	(D)
<b>ALL MINORITY FIRMS</b>						
All Industries	10,546	1,396,149	1,452	735,743	8,253	223,753
Forestry, fishing, etc.	(D)	(D)	(D)	(D)	(D)	(D)
Mining	11	(D)	0	0	0	0
Utilities	0	0	0	0	0	0
Construction	1,955	455,901	130	340,293	3,217	110,027
Manufacturing	163	11,824	(D)	(D)	(D)	(D)
Wholesale trade	(D)	(D)	(D)	(D)	(D)	(D)
Retail trade	233	116,291	(D)	(D)	(D)	(D)
Transportation & warehousing	496	30,525	(D)	(D)	(D)	(D)
Information	41	4,966	(D)	(D)	(D)	(D)
Finance & insurance	287	27,692	1	(D)	(D)	(D)
Real estate, etc.	1	(D)	1	0	0	0
Professional services, etc.	(D)	(D)	(D)	(D)	(D)	(D)
Management of companies	1	(D)	1	(D)	(D)	(D)
Administrative, support etc.	50	(D)	1	(D)	(D)	(D)
Educational services	164	4,088	(D)	(D)	(D)	(D)
Health care & social assistance	(D)	(D)	(D)	(D)	(D)	(D)
Arts, entertainment, etc.	174	6,327	(D)	(D)	(D)	(D)
Accommodation & food services	529	81,829	(D)	(D)	(D)	(D)
Other services	1,457	39,109	(D)	(D)	(D)	(D)
Industries not classified	(D)	(D)	(D)	(D)	(D)	(D)

**Note:** D = No data available

**Source:** U.S. Census Bureau, 2002 Survey of Business Owners.

**Table 2b. Minority/Women Availability by NAICS Industry, 2002 (cont'd).**

Corpus Christi MSA	All firms		Firms with Paid Employees			
	Number of Firms	Receipts (\$1,000)	Number of Firms	Receipts (\$1,000)	Number of Employees	Annual Payroll (\$1,000)
<b>WOMEN FIRMS</b>						
All Industries	8,640	889,237	1,395	746,913	9,497	209,839
Forestry, fishing, etc.	0	0	0	0	0	0
Mining	233	9,605	(D)	(D)	(D)	(D)
Utilities	0	0	0	0	0	0
Construction	343	300,610	(D)	(D)	(D)	(D)
Manufacturing	87	29,516	(D)	(D)	(D)	(D)
Wholesale trade	60	80,502	(D)	(D)	(D)	(D)
Retail trade	1,480	98,533	(D)	(D)	(D)	(D)
Transportation & warehousing	185	10,285	(D)	(D)	(D)	(D)
Information	32	6,374	(D)	(D)	(D)	(D)
Finance & insurance	279	20,364	(D)	(D)	(D)	(D)
Real estate, etc.	795	20,756	52	8,026	51	1,552
Professional services, etc.	735	44,476	(D)	(D)	(D)	(D)
Management of companies	2	(D)	2	(D)	(D)	(D)
Administrative, support etc.	(D)	(D)	(D)	(D)	(D)	(D)
Educational services	173	5,278	(D)	(D)	(D)	(D)
Health care & social assistance	1,454	58,518	280	53,769	681	17,264
Arts, entertainment, etc.	0	0	0	0	0	0
Accommodation & food services	460	83,758	0	0	0	0
Other services	1,077	29,969	142	19,678	562	7,560
Industries not classified	(D)	(D)	(D)	(D)	(D)	(D)
<b>HISPANIC FIRMS</b>						
All Industries	8,896	1,049,765	1,050	735,743	8,253	223,753
Forestry, fishing, etc.	(D)	(D)	(D)	(D)	(D)	(D)
Mining	(D)	(D)	(D)	(D)	(D)	(D)
Utilities	0	0	0	0	0	0
Construction	1,955	455,901	130	340,293	3,217	110,027
Manufacturing	161	11,824	(D)	(D)	(D)	(D)
Wholesale trade	(D)	(D)	(D)	(D)	(D)	(D)
Retail trade	(D)	(D)	(D)	(D)	(D)	(D)
Transportation & warehousing	496	30,525	(D)	(D)	(D)	(D)
Information	41	4,966	(D)	(D)	(D)	(D)
Finance & insurance	286	27,692	(D)	(D)	(D)	(D)
Real estate, etc.	(D)	(D)	(D)	(D)	(D)	(D)
Professional services, etc.	(D)	(D)	(D)	(D)	(D)	(D)
Management of companies	(D)	(D)	(D)	(D)	(D)	(D)
Administrative, support etc.	(D)	(D)	(D)	(D)	(D)	(D)
Educational services	164	4,088	(D)	(D)	(D)	(D)
Health care & social assistance	(D)	(D)	(D)	(D)	(D)	(D)
Arts, entertainment, etc.	174	6,327	(D)	(D)	(D)	(D)
Accommodation & food services	529	81,829	(D)	(D)	(D)	(D)
Other services	1,457	39,109	(D)	(D)	(D)	(D)
Industries not classified	(D)	(D)	(D)	(D)	(D)	(D)

**Note:** D = No data available

**Source:** U.S. Census Bureau, 2002 Survey of Business Owners.

**Table 2c. Minority/Women Availability by NAICS Industry, 2002 (cont'd).**

Corpus Christi MSA	All firms		Firms with Paid Employees			
	Number of Firms	Receipts (\$1,000)	Number of Firms	Receipts (\$1,000)	Number of Employees	Annual Payroll (\$1,000)
<b>BLACK FIRMS</b>						
All Industries	259	71,384	(D)	(D)	(D)	(D)
Forestry, fishing, etc.	0	0	0	0	0	0
Mining	0	0	0	0	0	0
Utilities	0	0	0	0	0	0
Construction	0	0	0	0	0	0
Manufacturing	0	0	0	0	0	0
Wholesale trade	0	0	0	0	0	0
Retail trade	8	0	0	0	0	0
Transportation & warehousing	0	0	0	0	0	0
Information	0	0	0	0	0	0
Finance & insurance	0	0	0	0	0	0
Real estate, etc.	0	0	0	0	0	0
Professional services, etc.	0	0	0	0	0	0
Management of companies	1	(D)	1	(D)	(D)	(D)
Administrative, support etc.	0	0	0	0	0	0
Educational services	0	0	0	0	0	0
Health care & social assistance	0	0	0	0	0	0
Arts, entertainment, etc.	0	0	0	0	0	0
Accommodation & food services	0	0	0	0	0	0
Other services	0	0	0	0	0	0
Industries not classified	(D)	(D)	(D)	(D)	(D)	(D)
<b>ASIAN FIRMS</b>						
All Industries	962	207,286	402	0	0	0
Forestry, fishing, etc.	0	0	0	0	0	0
Mining	11	(D)	0	0	0	0
Utilities	0	0	0	0	0	0
Construction	0	0	0	0	0	0
Manufacturing	0	0	0	0	0	0
Wholesale trade	0	0	0	0	0	0
Retail trade	225	116,291	0	0	0	0
Transportation & warehousing	0	0	0	0	0	0
Information	0	0	0	0	0	0
Finance & insurance	1	(D)	1	(D)	(D)	(D)
Real estate, etc.	0	0	0	0	0	0
Professional services, etc.	0	0	0	0	0	0
Management of companies	0	0	0	0	0	0
Administrative, support etc.	49	(D)	(D)	(D)	(D)	(D)
Educational services	0	0	0	0	0	0
Health care & social assistance	0	0	0	0	0	0
Arts, entertainment, etc.	0	0	0	0	0	0
Accommodation & food services	0	0	0	0	0	0
Other services	0	0	0	0	0	0
Industries not classified	(D)	(D)	(D)	(D)	(D)	(D)

**Note:** D = No data available

**Source:** U.S. Census Bureau, 2002 Survey of Business Owners.

**Table 2d. Minority/Women Availability by NAICS Industry, 2002 (cont'd).**

Corpus Christi MSA	All firms		Firms with Paid Employees			
	Number of Firms	Receipts (\$1,000)	Number of Firms	Receipts (\$1,000)	Number of Employees	Annual Payroll (\$1,000)
<b>NATIVE AMERICAN FIRMS</b>						
All Industries	429	67,714	0	0	0	0
Forestry, fishing, etc.	0	0	0	0	0	0
Mining	0	0	0	0	0	0
Utilities	0	0	0	0	0	0
Construction	0	0	0	0	0	0
Manufacturing	2	(D)	(D)	(D)	(D)	(D)
Wholesale trade	0	0	0	0	0	0
Retail trade	0	0	0	0	0	0
Transportation & warehousing	0	0	0	0	0	0
Information	0	0	0	0	0	0
Finance & insurance	0	0	0	0	0	0
Real estate, etc.	1	(D)	1	(D)	(D)	(D)
Professional services, etc.	0	0	0	0	0	0
Management of companies	0	0	0	0	0	0
Administrative, support etc.	1	(D)	1	(D)	(D)	(D)
Educational services	0	0	0	0	0	0
Health care & social assistance	0	0	0	0	0	0
Arts, entertainment, etc.	0	0	0	0	0	0
Accommodation & food services	0	0	0	0	0	0
Other services	0	0	0	0	0	0
Industries not classified	(D)	(D)	(D)	(D)	(D)	(D)

**Note:** D = No data available

**Source:** U.S. Census Bureau, 2002 Survey of Business Owners.

Approximately 5 percent of firms in the area belonged to other minority groups, including Blacks, Asians and Native Americans.

Among all firms in the Corpus Christi MSA, 7,855 of them (25%) were employers, i.e., firms with one or more employees. Of these employer firms, 1,452 (21%) were owned by minority and 1,396 (17%) were owned by women. Out of the total of \$27.3 billion in receipts, or sales volume, generated by employer firms in 2002, minority employers accounted for \$736 million (3%) while women employers accounted for \$747 million (3%).

In 2002, private firms in the Corpus Christi MSA collectively hired 23,737 employees with a total payroll of \$3.7 billion. Minority-owned firms together accounted for 8,253 job positions, or 35 percent of area private employment; and a total payroll of \$224 million, or 6 percent of area total. In addition, women-owned firms accounted for 9,497 job positions, or 40 percent of area employment; and a total payroll of \$209 million, or 6 percent of area total.

### **3.3 Availability by Industry Division**

The degree of availability by minority- and women-owned firms in the Corpus Christi MSA varies substantially across industry divisions, as shown in Tables 2a – 2d. For minority-owned firms overall, the largest concentration in 2002 went to construction (1,955 firms), followed by accommodation and food services (529 firms), and transportation (486 firms). This pattern was dominated by firms owned by Hispanics. In particular, Hispanic-owned firms constituted 43 percent of all construction firms in Corpus Christi, and generated 31 percent of the sales volume in the construction industry.

By comparison, the distribution of women-owned firms was more widespread, with particular concentration in retail trade (1,480 firms), and in health care and other social services (1,454 firms). In the construction industry, women accounted for 343 firms, or 8 percent of area total, but they collectively generated the most receipts among all industries—\$300 million, or 20 percent of area total.

### **3.4 Business Growth**

Table 3 illustrates the relative growth experience of minority- and women-owned businesses. The data for 2002 are derived from Tables 2a-2d, and those for 1987 are reported by

Marshall (1994). Between 1987 and 2002, the total number of businesses in the Corpus Christi MSA grew from 19,944 to 31,596, a nearly 60 percent growth. By comparison, the number of all minority-owned firms, with or without employees, grew over twice as much at 129 percent. Much of this growth was driven by Hispanic-owned firms. In percentage terms, however, firms owned by Asians showed the largest increase at over 600 percent. The growth of women-owned firms during this period was 56 percent, which was on par with the growth of all firms as a whole in the area.

**Table 3: Business Growth in Corpus Christi MSA, 1987-2002.**

Corpus Christi MSA	All firms		Firms with Paid Employees	
	Number of Firms	Receipts (\$1,000)	Number of Firms	Receipts (\$1,000)
All Firms	58.4%	697.6%	56.7%	769.1%
All Minority	129.0%	664.1%	39.6%	499.9%
Hispanic	113.2%	557.8%	12.4%	599.7%
Black	4.9%	1165.0%	—	—
Asian & Native American	643.9%	1473.9%	559.0%	—
Women	56.3%	255.2%	61.8%	299.3%

**Sources:** Tables 2a – 2d, and Marshall (1994).

Many of the new minority firms, particularly Hispanic-owned firms, are relatively small and without paid employees. Despite the relatively larger increase in the number of firms, growth of minority firms by sales volume between 1987 and 2002 was 664 percent, which was slightly less than that for all firms in the Corpus Christi MSA. Measured only by businesses with employees, the number of minority-owned firms grew by less than 40 percent, as compared to 57 percent for overall employer firms. While even smaller in size—as measured by gross receipts or employees—women-owned employer firms grew in number at a higher rate of 62 percent.

Table 4 compares measures of availability among different minority groups. The share of overall minority-owned firms rose from 23 percent to 33 percent over the 15-year period between 1987 and 2002. Except for women-owned firms, whose combined share dropped from 28 percent to 27 percent, the shares for most minority groups were the same or higher by 2002.

As pointed out above, minority- and women-owned businesses tend to be relatively smaller than other businesses. In 2002, firms in the Corpus Christi MSA together generated \$28.3 billion in gross receipts. Of this total, minority-owned firms accounted for \$1.4 billion (5%) and women-owned firms accounted for \$889 million (3%). In comparison with the shares of minority- and women-owned businesses in 1987, which were 5 percent and 7 percent, respectively, the more recent figures both show a decline between 1987 and 2002.

Compared to the demographic distribution shown in Table 1, the data suggest that almost all minority populations were *underrepresented* in business formation. For instance, Hispanics accounted for 55 percent of the Corpus Christi population, but 28 percent of the area's businesses. Asians were the only exception: they accounted for 1.4 percent of the area population but 4.4 percent of the area's businesses.

**Table 4: Historical Comparison of Firm Availability, Percentage of Total Firms, 1987-2002.**

Corpus Christi MSA	1987	1992	2002
All Firms			
All Minority	23.1%	—	33.4%
Hispanic	20.9%	26%	28.2%
Black	1.2%	1.4%	0.8%
Asian & Native American	0.9%	1.1%	4.4%
Women	27.7%	38.0%	27.3%
Firms with Employees			
All Minority	20.7%	—	18.5%
Hispanic	19.0%	—	13.4%
Black	0.9%	—	0.8%
Asian & Native American	1.2%	—	5.1%
Women	17.2%	—	17.8%

Sources: Tables 2a – 2d, and Marshall (1994).

### 3.5 Disparity Measures

Tables 5a – 5d present results of disparity index calculations by minority status and by industry. The tables first list the 2002 Census SBO data corresponding to Table 2a through Table 2d, except that the data are expressed in percentage terms. These expressions are used directly for calculating the disparity indexes as shown in the same tables. For instance, the percentage of sales (market share) going to women-owned firms in 2002 was 5 percent, while their percentage in the firm population (availability) was 33 percent. Accordingly, the disparity index for women-owned firms is 0.15, which is calculated by dividing their market share of 5 percent by their availability of 33 percent. This reading implies that there were over 6.5 times ( $1 \div 0.15 = 6.5$ ) more women-owned firms available in the Corpus Christi MSA than their market share of sales would suggest. Simply put, women-owned businesses have been *underutilized* given their availability.

Together Tables 5a – 5d clearly reveal that in most of the industries that different minority groups and women do participate, the disparity index is substantially smaller than 1. The only exception is the construction industry, whose disparity index is 2.69 for women and 0.72 for Hispanics (1.43 for firms with employees). By convention, a disparity index value smaller than 0.7 is considered substantial underutilization.

The average disparity index for all (employer and non-employer firms) minority- and women-owned businesses across all industries is 0.15. For all industries as a whole in the Corpus Christi MSA, minority- and women business owners made up approximately one third of all firms, but they accounted for only 5 percent of all business sales. Therefore, the disparity index indicates that minority firms received only 15 percent ( $5 \div 33 = 0.15$ ) of the sales implied by their availability.

**Table 5a: Disparity Indexes by Minority Status and Industry, Corpus Christi.**

Corpus Christi MSA	All firms			Firms with Paid Employees				
	Number of Firms	Receipts (\$1,000)	Disparity Index	Number of Firms	Receipts (\$1,000)	Number of Employees	Annual Payroll (\$1,000)	Disparity Index
<b>ALL FIRMS</b>								
All Industries	100.0%	100.0%	1.00	100.0%	100.0%	100.0%	100.0%	1.00
Forestry, fishing, etc.	100.0%	(D)	(D)	100.0%	100.0%	100.0%	100.0%	1.00
Mining	100.0%	100.0%	1.00	100.0%	100.0%	100.0%	100.0%	1.00
Utilities	100.0%	100.0%	1.00	100.0%	100.0%	100.0%	100.0%	1.00
Construction	100.0%	100.0%	1.00	100.0%	100.0%	100.0%	100.0%	1.00
Manufacturing	100.0%	100.0%	1.00	100.0%	100.0%	100.0%	100.0%	1.00
Wholesale trade	100.0%	100.0%	1.00	100.0%	100.0%	100.0%	100.0%	1.00
Retail trade	100.0%	100.0%	1.00	100.0%	100.0%	100.0%	100.0%	1.00
Transportation & warehousing	100.0%	100.0%	1.00	100.0%	100.0%	100.0%	100.0%	1.00
Information	100.0%	100.0%	1.00	100.0%	(D)	100.0%	(D)	(D)
Finance & insurance	100.0%	100.0%	1.00	100.0%	100.0%	100.0%	100.0%	1.00
Real estate, etc.	100.0%	100.0%	1.00	100.0%	100.0%	100.0%	100.0%	1.00
Professional services, etc.	100.0%	100.0%	1.00	100.0%	100.0%	100.0%	100.0%	1.00
Management of companies	100.0%	100.0%	1.00	100.0%	100.0%	0.0%	100.0%	1.00
Administrative, support etc.	100.0%	100.0%	1.00	100.0%	(D)	100.0%	(D)	(D)
Educational services	100.0%	100.0%	1.00	100.0%	100.0%	100.0%	100.0%	1.00
Health care & social assistance	100.0%	100.0%	1.00	100.0%	100.0%	100.0%	100.0%	1.00
Arts, entertainment, etc.	100.0%	100.0%	1.00	100.0%	(D)	100.0%	(D)	(D)
Accommodation & food services	100.0%	100.0%	1.00	100.0%	100.0%	100.0%	100.0%	1.00
Other services	100.0%	100.0%	1.00	100.0%	100.0%	100.0%	100.0%	1.00
Industries not classified	100.0%	(D)	(D)	100.0%	(D)	(D)	(D)	(D)
<b>ALL MINORITY FIRMS</b>								
All Industries	33.4%	4.9%	0.15	18.5%	2.7%	34.8%	6.1%	0.15
Forestry, fishing, etc.	(D)	(D)	0.00	(D)	(D)	(D)	(D)	0.00
Mining	1.1%	(D)	(D)	0.0%	0.0%	0.0%	0.0%	0.00
Utilities	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Construction	43.2%	30.9%	0.72	18.4%	26.3%	84.3%	31.3%	1.43
Manufacturing	29.4%	0.1%	0.00	(D)	(D)	(D)	(D)	0.00
Wholesale trade	(D)	(D)	0.00	(D)	(D)	(D)	(D)	0.00
Retail trade	6.6%	2.9%	0.44	(D)	(D)	(D)	(D)	0.00
Transportation & warehousing	43.3%	0.0%	0.00	(D)	(D)	(D)	(D)	0.00
Information	13.9%	0.0%	0.00	(D)	(D)	(D)	(D)	0.00
Finance & insurance	21.3%	3.1%	0.15	0.2%	(D)	(D)	(D)	(D)
Real estate, etc.	0.0%	(D)	(D)	0.2%	0.0%	0.0%	0.0%	0.00
Professional services, etc.	(D)	(D)	0.00	(D)	(D)	(D)	(D)	0.00
Management of companies	1.9%	(D)	(D)	1.9%	(D)	(D)	(D)	(D)
Administrative, support etc.	2.2%	(D)	(D)	0.3%	(D)	(D)	(D)	(D)
Educational services	37.8%	0.0%	0.00	(D)	(D)	(D)	(D)	(D)
Health care & social assistance	(D)	(D)	0.00	(D)	(D)	(D)	(D)	0.00
Arts, entertainment, etc.	18.2%	0.0%	0.00	(D)	(D)	(D)	(D)	(D)
Accommodation & food services	42.2%	13.4%	0.32	(D)	(D)	(D)	(D)	(D)
Other services	41.9%	12.0%	0.29	(D)	(D)	(D)	(D)	(D)
Industries not classified	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

**Note:** D = No data available

**Sources:** Tables 2a – 2d, and author’s calculations.

**Table 5b: Disparity Indexes by Minority Status and Industry, Corpus Christi (cont'd).**

Corpus Christi MSA	All firms			Firms with Paid Employees				
	Number of Firms	Receipts (\$1,000)	Disparity Index	Number of Firms	Receipts (\$1,000)	Number of Employees	Annual Payroll (\$1,000)	Disparity Index
<b>WOMEN FIRMS</b>								
All Industries	27.3%	3.1%	0.11	17.8%	2.7%	40.0%	5.7%	0.15
Forestry, fishing, etc.	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Mining	22.3%	0.4%	0.02	(D)	(D)	(D)	(D)	(D)
Utilities	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Construction	7.6%	20.4%	2.69	(D)	(D)	(D)	(D)	(D)
Manufacturing	15.7%	0.3%	0.02	(D)	(D)	(D)	(D)	(D)
Wholesale trade	7.0%	0.0%	0.00	(D)	(D)	(D)	(D)	(D)
Retail trade	41.8%	2.5%	0.06	(D)	(D)	(D)	(D)	(D)
Transportation & warehousing	16.2%	0.0%	0.00	(D)	(D)	(D)	(D)	(D)
Information	10.8%	1.6%	0.15	(D)	(D)	(D)	(D)	(D)
Finance & insurance	20.7%	2.3%	0.11	(D)	(D)	(D)	(D)	(D)
Real estate, etc.	29.2%	0.0%	0.00	11.5%	0.0%	0.0%	0.0%	0.00
Professional services, etc.	20.8%	0.0%	0.00	(D)	(D)	(D)	(D)	(D)
Management of companies	3.8%	(D)	(D)	3.8%	(D)	(D)	(D)	(D)
Administrative, support etc.	(D)	(D)	0.00	(D)	(D)	(D)	(D)	0.00
Educational services	39.9%	0.0%	0.00	(D)	(D)	(D)	(D)	(D)
Health care & social assistance	49.8%	2.9%	0.06	28.7%	2.8%	35.0%	2.5%	0.10
Arts, entertainment, etc.	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Accommodation & food services	36.7%	13.7%	0.37	0.0%	0.0%	0.0%	0.0%	0.00
Other services	31.0%	9.2%	0.30	25.1%	7.5%	19.3%	9.3%	0.30
Industries not classified	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
<b>HISPANIC FIRMS</b>								
All Industries	28.2%	3.7%	0.13	13.4%	2.7%	34.8%	6.1%	0.20
Forestry, fishing, etc.	(D)	(D)	0.00	(D)	(D)	(D)	(D)	0.00
Mining	(D)	(D)	0.00	(D)	(D)	(D)	(D)	0.00
Utilities	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Construction	43.2%	30.9%	0.72	18.4%	26.3%	84.3%	31.3%	1.43
Manufacturing	29.0%	0.1%	0.00	(D)	(D)	(D)	(D)	(D)
Wholesale trade	(D)	(D)	0.00	(D)	(D)	(D)	(D)	0.00
Retail trade	(D)	(D)	0.00	(D)	(D)	(D)	(D)	0.00
Transportation & warehousing	43.3%	0.0%	0.00	(D)	(D)	(D)	(D)	(D)
Information	13.9%	0.0%	0.00	(D)	(D)	(D)	(D)	(D)
Finance & insurance	21.2%	3.1%	0.15	(D)	(D)	(D)	(D)	(D)
Real estate, etc.	(D)	(D)	0.00	(D)	(D)	(D)	(D)	0.00
Professional services, etc.	(D)	(D)	0.00	(D)	(D)	(D)	(D)	0.00
Management of companies	(D)	(D)	0.00	(D)	(D)	(D)	(D)	0.00
Administrative, support etc.	(D)	(D)	0.00	(D)	(D)	(D)	(D)	0.00
Educational services	37.8%	0.0%	0.00	(D)	(D)	(D)	(D)	(D)
Health care & social assistance	(D)	(D)	0.00	(D)	(D)	(D)	(D)	0.00
Arts, entertainment, etc.	18.2%	0.0%	0.00	(D)	(D)	(D)	(D)	(D)
Accommodation & food services	42.2%	13.4%	0.32	(D)	(D)	(D)	(D)	(D)
Other services	41.9%	12.0%	0.29	(D)	(D)	(D)	(D)	(D)
Industries not classified	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

**Note:** D = No data available

**Sources:** Tables 2a – 2d, and author’s calculations.

**Table 5c: Disparity Indexes by Minority Status and Industry, Corpus Christi (cont'd).**

Corpus Christi MSA	All firms			Firms with Paid Employees				
	Number of Firms	Receipts (\$1,000)	Disparity Index	Number of Firms	Receipts (\$1,000)	Number of Employees	Annual Payroll (\$1,000)	Disparity Index
<b>BLACK FIRMS</b>								
All Industries	0.8%	0.3%	0.31	(D)	(D)	(D)	(D)	(D)
Forestry, fishing, etc.	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Mining	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Utilities	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Construction	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Manufacturing	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Wholesale trade	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Retail trade	0.2%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Transportation & warehousing	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Information	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Finance & insurance	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Real estate, etc.	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Professional services, etc.	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Management of companies	1.9%	(D)	(D)	1.9%	(D)	(D)	(D)	(D)
Administrative, support etc.	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Educational services	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Health care & social assistance	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Arts, entertainment, etc.	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Accommodation & food services	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Other services	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Industries not classified	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
<b>ASIAN FIRMS</b>								
All Industries	3.0%	0.7%	0.24	5.1%	0.0%	0.0%	0.0%	0.00
Forestry, fishing, etc.	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Mining	1.1%	(D)	(D)	0.0%	0.0%	0.0%	0.0%	0.00
Utilities	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Construction	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Manufacturing	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Wholesale trade	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Retail trade	6.4%	2.9%	0.46	0.0%	0.0%	0.0%	0.0%	0.00
Transportation & warehousing	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Information	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Finance & insurance	0.1%	(D)	(D)	0.2%	(D)	(D)	(D)	(D)
Real estate, etc.	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Professional services, etc.	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Management of companies	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Administrative, support etc.	2.1%	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Educational services	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Health care & social assistance	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Arts, entertainment, etc.	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Accommodation & food services	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Other services	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Industries not classified	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

**Note:** D = No data available

**Sources:** Tables 2a – 2d, and author’s calculations.

**Table 5d: Disparity Indexes by Minority Status and Industry, Corpus Christi (cont'd).**

Corpus Christi MSA	All firms			Firms with Paid Employees				
	Number of Firms	Receipts (\$1,000)	Disparity Index	Number of Firms	Receipts (\$1,000)	Number of Employees	Annual Payroll (\$1,000)	Disparity Index
<b>AMERICAN INDIAN FIRMS</b>								
All Industries	1.4%	0.2%	0.18	0.0%	0.0%	0.0%	0.0%	0.00
Forestry, fishing, etc.	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Mining	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Utilities	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Construction	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Manufacturing	0.4%	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Wholesale trade	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Retail trade	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Transportation & warehousing	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Information	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Finance & insurance	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Real estate, etc.	0.0%	(D)	(D)	0.2%	(D)	(D)	(D)	(D)
Professional services, etc.	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Management of companies	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Administrative, support etc.	0.0%	(D)	(D)	0.3%	(D)	(D)	(D)	(D)
Educational services	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Health care & social assistance	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Arts, entertainment, etc.	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Accommodation & food services	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Other services	0.0%	0.0%	0.00	0.0%	0.0%	0.0%	0.0%	0.00
Industries not classified	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

**Note:** D = No data available

**Sources:** Tables 2a – 2d, and author’s calculations.

For women-owned firms, in particular, the disparity indexes are 0.11 for all firms and 0.15 for employer firms. For Hispanic-owned firms, the respective figures are 0.13 for all firms and 0.20 for employer firms. These figures indicate a substantial *underutilization* of minority- or women-owned firms in the Corpus Christi MSA economy: their availability is between 5 to 7 times higher than what their market shares would suggest.

Based on 2002 Census data as the measure of business participation, Tables 5a –5d also reveal appreciable variation in the size of the disparity indexes across industry divisions. Nevertheless, it is apparent that minority and female business owners in most industries have been facing considerable disparities in Corpus Christi.

Table 6 compares the disparity indexes based on the 2002 Census data with those reported by Marshall (1994) for the Corpus Christi MSA. The estimates are largely similar for most demographic groups. However, except for Hispanic-owned firms with employees, most estimates indicate a declining trend over the 15-year period. The comparative results suggest that disparities between the availability and utilization of minority- and women-owned businesses in Corpus Christi have widened over time.

**Table 6: Historical Comparison of Disparity Indexes, All Industries.**

Corpus Christi MSA	1987	1992	2002
All Firms			
All Minority	0.22	–	0.15
Hispanic	0.22	0.31	0.13
Black	0.38	0.41	0.31
Asian & Native American	0.53	0.81	0.24
Women	0.25	0.38	0.11
Firms with Employees			
All Minority	0.19	–	0.15
Hispanic	0.18	–	0.20
Black	0.11	–	–
Asian & Native American	0.38	–	–
Women	0.35	–	0.15

**Sources:** Tables 5a – 5d, and Marshall (1994).

## 4. DBE PARTICIPATION IN RTA PROCUREMENT

### 4.1 DBE Participation

The above evidence on business availability and disparities in Corpus Christi serves as the backdrop for DBE participation in RTA contracting and procurement activities.<sup>4</sup> Table 7 shows the pattern of DBE participation based on RTA payments in the fiscal years 2001-06. These figures are equivalent to business receipts for RTA contractors and suppliers. During this period, the average annual total payments were \$8.9 million. DBE firms received an average of \$1.7 million annually. As measured by procurement data, the DBE participation rate ranged between 9.4 percent (FY 2005) to 25.2 percent (FY 2002), with an average of 18.7 percent.

**Table 7: Overall DBE Participation by RTA Payments, FY 2001-06.**

	Total Payments	Payments to DBEs	% DBE Participation
<b>FY 2006**</b>	\$ 9,357,391.24	\$ 1,760,647.56	18.8%
<b>FY 2005</b>	\$ 8,722,162.29	\$ 816,081.07	9.4%
<b>FY 2004</b>	\$ 5,482,254.75	\$ 880,894.82	16.1%
<b>FY 2003</b>	\$ 11,417,204.53	\$ 2,673,289.64	23.4%
<b>FY 2002</b>	\$ 8,725,135.92	\$ 2,198,613.25	25.2%
<b>FY 2001</b>	\$ 9,956,452.74	\$ 1,927,011.39	19.4%

**Note:** \*\* Data from July 2005 through June 2006

**Sources:** Corpus Christi RTA, and author's calculations.

The RTA has provided disaggregated data on check disbursement and vendor payments in periods of 2005 and 2006. This dataset includes for each payment, date of purchase, order number, vendor number and name, and the dollar amount of payment. For each vendor, the dataset contains information on DBE status and DBE type (including gender and ethnicity).

<sup>4</sup> As discussed above, DBEs in this study refer to only firms that have been certified as DBEs and have maintained such a status.

Table 8 provides some perspectives of DBE participation for a particular survey period that runs from July 2005 through June 2006 (12-month annual cycle). During this period, the RTA made a total of 1,826 contract payments to 384 vendors. A total of 39 (10.2%) vendors were designated as DBEs. Of these DBEs, 27 (7%) were Hispanic-owned firms, 13 (3.4%) were women-owned firms, and 3 (0.8%) of these women-owned firms were owned specifically by Hispanic women. Over 80 percent of contract payments went to non-DBEs, which made up nearly 90 percent of RTA vendors.

Out of the total of 1,826 RTA payment records, DBE vendors accounted for 222 payments (12.2%). The payments during the survey period totaled \$9.3 million. Out of this total amount, DBE firms received \$1.7 million (18.8%). Among women-owned DBE firms, firms owned by non-Hispanic White women received 8.8 percent and firms owned by Hispanic women received 1.2 percent of the RTA dollars.

**Table 8: DBE Participation by RTA Payments, 2005-06.**

	# Payments	% Total	Total Dollars (\$)	%Total	# Firms	% Total
RTA Total	1,826	100.0%	9,357,391.24	100.0%	384	100.0%
Total DBEs	222	12.2%	1,760,647.56	18.8%	39	10.2%
Hispanic	133	7.3%	369,737.27	4.0%	27	7.0%
Others*	89	4.9%	1,390,910.29	14.9%	12	3.1%
DBE Men	101	5.5%	827,860.63	8.8%	26	6.8%
Hispanic	94	5.1%	260,966.85	2.8%	24	6.3%
Others*	7	0.4%	566,893.78	6.1%	2	0.5%
DBE Women	121	6.6%	932,786.93	10.0%	13	3.4%
Non-Hispanic White	82	4.5%	824,016.51	8.8%	10	2.6%
Hispanic	39	2.1%	108,770.42	1.2%	3	0.8%
Non-DBEs	1,604	87.8%	7,596,743.68	81.2%	345	89.8%

**Note:** \* Black or African American, Asian, Native American, and other minority firms

**Sources:** Corpus Christi RTA, and author's calculations.

For RTA contracting and procurement activities, DBEs made up about one in ten vendors and received nearly one in five payment dollars. There is an appreciable disparity by DBE status. For instance, Hispanic-male business owners tended to receive relatively smaller payment dollars given their availability (7% of total vendors receiving 4% of payment dollars), while firms owned by non-Hispanic White women tended to receive relatively larger contract dollars given their availability (2.6% of total vendors receiving 8.8% of payment dollars).

## **4.2 RTA Disparity Indexes**

Given the RTA payment data as shown in Table 8, disparity indexes are computed to compare the participation rates of different DBE groups relative to non-DBE businesses. Based on the formulas presented in Section 2, the indexes are calculated using RTA payment dollars as the measurement of utilization, and the numbers of local employer and non-employer firms as the measurement of participation. Both employer and non-employer firms are included in the calculation because RTA procurement data cannot be subdivided according to vendors with or without employees.

Table 9 lists the data for calculating the disparity indexes and the resulting estimates. The RTA data in the second and third columns are derived from Table 8 above, and the data on the number of firms available locally are derived from the Corpus Christi MSA 2002 Census data that have been reported in Section 3 above. The disparity indexes in the fifth column are computed as the ratios of the corresponding figures in the third column over the corresponding figures in the fourth column. For comparison purposes, the last column lists the disparity indexes reported in Marshall (1994).

The average RTA payment during the 2005-06 survey period was \$24,368. DBEs on average received almost twice as much as did non-DBEs. Among those DBEs, firms owned by Hispanic men received the lowest average payment (\$13,694), while firms owned by non-Hispanic minority men received the highest (\$283,447). However, without taking business availability into consideration, RTA payment data alone do not fully reflect business disparities.

The disparity indexes in Table 9 provide a different perspective on DBE participation than that is based solely on procurement dollars alone. The disparity index for minority firms as a whole is 0.56, which suggests that there are almost twice ( $1 \div 0.56 = 1.8$ ) as many minority- and women-owned firms available in the Corpus Christi MSA than what their share of RTA expenditures would suggest. This observation is in line with the estimate of 0.49 reported by Marshall (1994) for the 1988-94 period.

**Table 9: Disparity Indexes for RTA by DBE Status, Gender, and Ethnicity.**

	Average RTA Payment (\$)	Total RTA Payment Dollars	Local Firms (2002)	Disparity Index 2005-06	Disparity Index 1988-94
Total	24,368.21	100.0%	100.0%	1.00	1.00
All DBE Firms	45,144.81	18.8%	33.4%	0.56	0.49
Hispanic	13,693.97	4.0%	28.2%	0.14	0.49
Others*	115,909.19	14.9%	5.2%	2.86	0.19
DBE Men	31,840.79	8.8%	24.3%	0.36	–
Hispanic	10,873.62	2.8%	21.9%	0.13	–
Others*	283,446.89	6.1%	5.2%	1.17	0.69
DBE Women	71,752.84	10.0%	27.3%	0.37	0.14
Non-Hispanic White	82,401.65	8.8%	21.0%	0.42	–
Hispanic	36,256.81	1.2%	6.3%	0.18	–
Non-DBE Firms	22,019.55	81.2%	66.6%	1.22	–

**Note:** \* Black or African American, Asian, Native American, and other minority firms

**Sources:** Tables 5a – 5d, Table 8, Marshall (1994), and author's calculations.

By comparison, the disparity index for non-minority owned firms is 1.22—a measure above 1.0 indicates a greater utilization of firms relative to their availability. On the other hand, the index for Hispanic owners, either men or women, is below 0.2. As compared with the estimate of 0.49 in the earlier disparity study (Marshall, 1994), an index of 0.14 for Hispanic businesses suggests that the extent of *underutilization* for these businesses has worsened in the past decade. Over the period of the two disparity studies for the RTA, the participation rate (as measured by the number of local firms) increased from 21 percent to 28 percent, but the utilization rate (as measured by RTA procurement dollars) declined from 10 percent to 4 percent.

As for the overall Corpus Christi economy, quantitative evidence strongly indicates that DBEs, particularly Hispanic-owned businesses, confront considerable disparities in RTA contracting and procurement activities. Hispanic male business owners overall face the highest disparity, with a utilization rate at 13 percent of their availability. This conclusion stands in stark contrast to the performance of RTA in its DBE program. As a comparison between the disparity indexes based on the latest available data against those reported in the 1994 disparity study, there appears some improvement in utilizing certain minority groups over the past decade, such as women business owners. However, utilization of Hispanic firms, given their increased availability, appears to have declined even further.

## 5. SUMMARY AND CONCLUSION

This disparity study began with compiling data on minority- and women-owned businesses, both in the private sector of the Corpus Christi MSA and particularly as suppliers for the RTA. The data help facilitate the analysis of disparities between business availability and participation for different demographic groups in Corpus Christi. Based on the standard disparity measures, quantitative evidence suggests that disparity between the participation and availability of minority- and women-owned businesses, as documented in the 1994 RTA disparity report, largely prevails today.

The share of minority-owned firms in the Corpus Christi MSA economy, particularly those owned by Asians and Native Americans, has risen since 1987. The 2002 Census data for the Corpus Christi MSA indicate that minority- and women-owned businesses make up approximately one third of all businesses in the area economy. However, they collectively account for only 5 percent of all business sales. Accordingly, the disparity index—the ratio of utilization to the ratio of availability—is 0.15 for these businesses on average. Similarly, the disparity indexes particularly for Hispanic- and women-owned businesses are below 0.2. This means that the proportion of market share going to minority- and women-owned businesses is less than 20 percent of their respective share of the business population in Corpus Christi.

Similarly, the shares of business volume for most minority groups are appreciably lower than their respective population shares. The construction industry, in which Hispanic- and women-owned firms show the highest participation rates, is a notable exception to the norm. For every minority group, businesses are *underutilized*, meaning that minority owners receive less business than what their availability would suggest.

The RTA has established a DBE program as required by the DOT. The Authority has consistently met or exceeded its annual DBE participation goal on federally assisted contracts. Based on RTA payment dollars, its DBE participation on overall contracting and procurement activities, rather than only federally assisted projects, have also been in line with its DBE goal particularly for federally funded projects.

However, evidence based on disparity indexes, which compare DBE utilization against availability, confirms that a considerable extent of business disparities that was found in an earlier study by Marshall (1994) still exists in Corpus Christi today. The share of RTA contracting and procurement dollars going to DBEs as a whole is about half of their respective share of the business population. Disparities between business utilization and availability are rampant among minority groups. The extent of underutilization is the greatest for businesses owned by Hispanic men, whose disparity index is 0.13.

As with the 1994 RTA disparity report, research in the present study followed the narrow statistical standards established by the Court in *Croson*. Accordingly, quantitative analysis is limited to the outstanding population of minority- and women-owned firms, and thus excluding any “discouraged” businesses that have never entered or “deterred” businesses that have left the marketplace altogether due to the possible presence of inequitable treatments. As a result of this methodology, the findings most likely *understate* the “true” extent of business disparities in Corpus Christi.

On the other hand, this study utilizes DBE data made available by the RTA for analyzing its contracting and procurement activities. Because not all minority- or women-owned businesses are automatically considered as a DBE, the resulting estimates might *understate* the “true” extent of participation by minority and women business owners. To gain a more accurate

perspective on business disparities, it is recommended that the RTA make increasing efforts in certifying eligible DBEs.

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## APPENDIX

### RTA DBE Eligibility Criteria

Just because a firm is a small, minority-owned, or woman-owned company does not mean it is automatically a DBE. This is a federal program with an application process and eligibility criteria.

- At least 51% of company ownership must be possessed and controlled by an individual(s) who is (are) of a racial/ethnic minority, female or otherwise determined to be socially and/or economically disadvantaged.
- All individuals comprising the majority ownership must complete and submit a notarized Statement of Personal Net Worth, which excluding primary residence and interest in applicant firm, must not exceed \$750,000.

Prospective DBE firms must be a small business as defined by the applicable Small Business Administration (SBA) size standard and cannot exceed statutory gross receipts cap of \$17.3 million averaged over the last three years.

**Source:** RTA, accessed online at <http://www.ccrta.org>.

