

NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS

# Joint Availability and Disparity

3

VOLUME

CITY OF  
FORT WORTH

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Submitted by: Mason Tillman Associates, Ltd.



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# 1

## **CONTRACTING AND PROCUREMENT ANALYSIS**

### **I. INTRODUCTION**

Mason Tillman was commissioned by the North Central Texas Council of Governments to conduct an Availability and Disparity Study for the City of Arlington, the City of Fort Worth, Dallas / Fort Worth International Airport Board, Fort Worth Independent School District, Fort Worth Transportation Authority, and the North Texas Tollway Authority. This chapter reviews the contracting and procurement policies of the City of Fort Worth (City) in the areas of goods and services, construction, professional services, and architecture and engineering services during the October 1, 2002 to September 30, 2007 study period.

#### **A. Governing Laws and Regulations**

The laws and regulations that govern the City's procurement procedures conform to standards and limitations established by State law and City rules and policies which include:

- State Law
  - *Local Government Code*, Chapter 252 and Chapter 271
  - *Texas Government Code*, Chapter 791, Chapter 2253, subchapter B, and Chapter 2254
  - *Texas Labor Code*, Section 402.061
- City Policy
  - City of Fort Worth Administrative Regulations



## **II. DEFINITIONS**

Goods and services procured by the City are classified in the City's ordinances and procedures under four industries. The four industries are defined as follows:

**Goods and Services** in which goods are defined as supplies, materials, commodities, and equipment; and services are defined as the furnishing of skilled or unskilled labor not including professional services as defined by The Professional Services Procurement Act.<sup>1</sup>

**Construction** is defined as the erection, rehabilitation, alteration, conversion, extension, demolition, improvement, remodeling or repair to any real property, including streets, storm drains, and facilities providing utility service owned by the City.

**Professional Services** as defined by The Professional Services Procurement Act are those services within the scope of the practice as defined by State law. The Act defines professional services by license and registration. The relevant licenses and registrations are accounting, medicine, real estate appraising, or other relevant services. For purposes of this report, this industry will be defined as professional services; however, it will not include architecture and engineering services.

**Architecture and Engineering Services** are defined in the Act and limited to those professional services procured in relation to building and construction. They include architecture, landscape architecture, land surveying, and professional engineering.

## **III. OVERVIEW OF THE PROCUREMENT PROCESS**

The City has adopted procurement procedures, as set forth in the City's Administrative Regulations, with the intent to provide guidance and instruction for the purchasing process as well as to conduct its purchasing and procurement functions efficiently and effectively. The procurement of goods and services, construction, professional services, and architecture and engineering services are subject to different advertisement, solicitation, and approval standards.

Decentralized purchases are valued at \$3,000 or less for all industries, and for the purpose of this report will be considered informal solicitations. Further informal solicitations are valued more than \$3,000 through \$25,000 for all industries. Informal solicitations are not subject to advertising or solicitation requirements. Formal solicitations are valued more than

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<sup>1</sup> The Professional Services Procurement Act (September 1, 1993), *Texas Government Code*, Chapter 2254



\$25,000 for all industries and must be advertised and procured through a competitive process.

Purchases exempt from the City's procurement process are cooperative purchases, emergency purchases and sole source purchases. Cooperative purchases include interlocal agreements and purchases from state contracts.

Table 1.01 summarizes the procurement requirements by industry, described in Section IV.



**Table 1.01 City of Fort Worth Procurement Process**

<b>Procurement Category</b>	<b>Dollar Threshold</b>	<b>Advertising Requirement</b>	<b>Solicitation Process</b>	<b>Procurement Approval</b>
<b>Goods and Services</b>	Valued at \$3,000 or less	None	None	User department
	Valued more than \$3,000 through \$25,000	None	A minimum of three informal quotations are solicited through QuoteWire, fax, or telephone followed by faxed or written confirmation.  Two quotes must be from M/WBE vendors where possible.	Purchasing Manager or designee
	Valued more than \$25,000	Two consecutive weeks of advertising the bid opening date in a newspaper of general circulation.	Competitive Sealed Bid	City Council
<b>Construction</b>	Valued at \$3,000 or less	None	None	User department

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**Table 1.01 City of Fort Worth Procurement Process**

<b>Procurement Category</b>	<b>Dollar Threshold</b>	<b>Advertising Requirement</b>	<b>Solicitation Process</b>	<b>Procurement Approval</b>
<b>Construction</b>	Valued more than \$3,000 through \$25,000	None	A minimum of three informal quotes are solicited through QuoteWire, fax or telephone followed by faxed or written confirmation.  Two quotes must be from M/WBE vendors where possible.	Purchasing Manager or designee.
	Valued more than \$25,000	Two consecutive weeks of advertising the bid opening date in a newspaper of general circulation.	Competitive Sealed Bid	City Council
<b>Professional Services</b>	Valued at \$3,000 or less	None	None	User department

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**Table 1.01 City of Fort Worth Procurement Process**

<b>Procurement Category</b>	<b>Dollar Threshold</b>	<b>Advertising Requirement</b>	<b>Solicitation Process</b>	<b>Procurement Approval</b>
<b>Professional Services</b>	Valued more than \$3,000 through \$25,000	None	<p>A minimum of three informal proposals or statements of qualifications may be received on QuoteWire, fax, or telephone followed by faxed or written confirmation.</p> <p>Two proposals or statements of qualifications must be solicited from M/WBE vendors where possible.</p>	Purchasing Manager or designee
	Valued more than \$25,000	Two consecutive weeks of advertising in a newspaper of general circulation.	Request for Proposal or Request for Qualifications	City Council
<b>Architecture and Engineering Services</b>	Valued at \$3,000 or less	None	None	User department

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**Table 1.01 City of Fort Worth Procurement Process**

<b>Procurement Category</b>	<b>Dollar Threshold</b>	<b>Advertising Requirement</b>	<b>Solicitation Process</b>	<b>Procurement Approval</b>
<b>Architecture and Engineering Services</b>	Valued more than \$3,000 through \$25,000	None	A minimum of three informal statements of qualifications may be received on QuoteWire, fax, or telephone followed by faxed or written confirmation.  Two statements of qualifications must be solicited from M/WBE vendors where possible.	Purchasing Manager or designee
	Valued more than \$25,000	Two consecutive weeks of advertising in a newspaper of general circulation.	Request for Qualifications	City Council
<b>Emergency Purchases</b>	Valued less than \$25,000	None	Should obtain at least three informal bids if practical given the time frame and select the lowest bid meeting the specifications.	Department Head and advance approval given by the Department of Law and the Purchasing Manager
	Valued at \$25,000 or more	None	Should obtain at least three informal bids if practical given the time frame and select the lowest bid meeting the specifications.	City Council

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**Table 1.01 City of Fort Worth Procurement Process**

<b>Procurement Category</b>	<b>Dollar Threshold</b>	<b>Advertising Requirement</b>	<b>Solicitation Process</b>	<b>Procurement Approval</b>
<b>Sole Source Purchases</b>	\$3,000 or more	None	None	Purchasing Manager or designee has the authority to approve all requests for sole source purchases.
<b>Purchases from State Contracts</b>	None	None	None	Purchasing Manager
<b>Interlocal Agreements</b>	None	None	None	City Council
<b>Procurement Cards</b>	Valued less than \$3,000	None	None	None

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## **IV. STANDARDS FOR PROCURING CITY OF FORT WORTH CONTRACTS**

### **A. Informal Solicitations**

Informal solicitations are used by the Purchasing Division and user departments for common items that are easy to describe and do not require lengthy specifications. Informal solicitations are considered ideal for increasing participation of M/WBEs on City contracts. No advertising is required to solicit quotes.

#### **1. Purchases of Goods and Services Valued at \$3,000 or Less**

Purchases of goods and services valued at \$3,000 or less may be procured without solicitation requirements. Authorized employees may make purchases using a BuySpeed requisition or a procurement card. The Purchasing Division will determine the correct source and acquisition method. Use of a procurement card purchase in this range is dependent upon the department's procurement card limits.

These small purchases are ideal for increasing participation of M/WBEs. The BuySpeed purchasing system identifies M/WBE vendors by commodity, allowing easy identification and selection of M/WBE vendors.

#### **2. Purchases of Goods and Services Valued More Than \$3,000 through \$25,000**

Purchases of goods and services valued more than \$3,000 through \$25,000 require a minimum of three quotes, two of which must be from M/WBE vendors. When contacting M/WBEs for purchases in this price range, the Purchasing Division or user department must use the list of potential vendors maintained by the City's M/WBE Office. Quotes are evaluated based on purchase price and other price related and legal factors such as past performance, quality, or impact on the ability of the City to comply with laws and rules.

#### **3. Purchases of Construction Valued at \$3,000 or Less**

Purchases of construction services valued at \$3,000 or less may be procured without solicitation requirements. Authorized employees may make purchases using a BuySpeed requisition or a procurement card. The Purchasing Division will determine the correct source and acquisition method. Use of a procurement card purchase in this range is dependent upon the department's procurement card limits.

These small purchases are ideal for increasing participation of M/WBEs. The BuySpeed purchasing system identifies M/WBE vendors by commodity, allowing easy identification and selection of M/WBE vendors.



#### **4. Purchases of Construction Valued More Than \$3,000 Through \$25,000**

Purchases of construction services valued more than \$3,000 through \$25,000 require a minimum of three competitive quotes, two of which must be from M/WBE vendors. When contacting M/WBEs for purchases in this price range, the Purchasing Division or user department must use the list of potential vendors maintained by the City's M/WBE Office. Quotes are evaluated based on purchase price and other price related and legal factors such as past performance, quality, or impact on the ability of the City to comply with laws and rules.

#### **5. Purchases of Professional Services Valued at \$3,000 or Less**

Purchases of professional services valued at \$3,000 or less may be procured without solicitation requirements. Authorized employees may make purchases using a BuySpeed requisition or a procurement card. The Purchasing Division will determine the correct source and acquisition method. Use of a procurement card purchase in this range is dependent upon the department's procurement card limits.

These small purchases are ideal for increasing participation of M/WBEs. The BuySpeed purchasing system identifies M/WBE vendors by commodity, allowing easy identification and selection of M/WBE vendors.

#### **6. Purchases of Professional Services Valued More Than \$3,000 Through \$25,000**

Purchases of professional services valued at more than \$3,000 through \$25,000 require a minimum of three proposals or statements of qualifications, two of which must be from M/WBE vendors. When contacting M/WBEs for purchases in this price range, the Purchasing Division or user department must use the list of potential vendors maintained by the City's M/WBE Office. The Purchasing Division will provide assistance in determining when certain professional services shall be acquired through request for proposals (RFPs) or request for qualifications (RFQs).

Offers are evaluated differently depending on what solicitation method is used. For RFPs, typical evaluation factors include price, delivery, warranty, experience of the vendor and references. For RFQs, the City must make the award based on demonstrated competence and qualifications to perform the services.

#### **7. Purchases of Architecture and Engineering Services Valued at \$3,000 or Less**

Purchases of architecture and engineering services valued at \$3,000 or less may be procured without solicitation requirements. Authorized employees may make purchases using a



BuySpeed requisition or a procurement card. The Purchasing Division will determine the correct source and acquisition method. Use of a procurement card purchase in this range is dependent upon the department's procurement card limits.

These small purchases are ideal for increasing participation of M/WBEs. The BuySpeed purchasing system identifies M/WBE vendors by commodity, allowing easy identification and selection of M/WBE vendors.

## **8. Purchases of Architecture and Engineering Services Valued More Than \$3,000 Through \$25,000**

Purchases of architecture and engineering services valued more than \$3,000 through \$25,000 require a minimum of three statements of qualifications, two of which must be from M/WBE vendors. When contacting M/WBEs for purchases in this price range, the Purchasing Division or user department must use the list of potential vendors maintained by the City's M/WBE Office. The City must make the award based on demonstrated competence and qualifications to preform the services.

### ***B. Formal Solicitations***

Contracts valued more than \$25,000 for goods and services, construction, professional services, and architecture and engineering services are considered formal solicitations. All formal solicitations are subject to advertising requirements and City Council approval.

#### **1. Purchases of Goods and Services Valued More Than \$25,000**

Purchases of construction services valued more than \$25,000 must be advertised for two consecutive weeks in a newspaper of general circulation. The opening of bids must occur no less than 15 days after the first day of advertising. After bids are opened, they will be tabulated and evaluated by the Purchasing Division. Copies of the bids, as well as the Purchasing Division's evaluation and recommendations will be forwarded to the user department. The user department will then determine whether the bid complies with the bid specifications. Once a determination of compliance is determined, the Purchasing Division will proceed to get final authorization from the City Council.

#### **2. Purchases of Construction Valued More Than \$25,000**

Purchases of construction services valued more than \$25,000 must be advertised for two consecutive weeks in a newspaper of general circulation. The opening of bids must occur no less than 15 days after the first day of advertising. After bids are opened, they will be tabulated and evaluated by the Purchasing Division. Copies of the bids, as well as the Purchasing Division's evaluation and recommendations will be forwarded to the user



department. The user department will then determine whether the bid complies with the bid specifications. Once a determination of compliance is determined, the Purchasing Division will proceed to get final authorization from the City Council.

Transportation/Public Works, Engineering, and Water and Environmental Management Departments generally manage, prepare the specifications, issue and evaluate bids, and recommend awards for all construction projects.

### **3. Purchases of Professional Services Valued More Than \$25,000**

Purchases of professional services valued more than \$25,000 must be advertised for two consecutive weeks in a newspaper of general circulation. The Purchasing Division will provide assistance in determining when certain professional services shall be acquired through RFPs or RFQs.

Offers are evaluated differently depending on what solicitation method is used. For RFPs a rating matrix process consisting of the evaluation factors stated in the RFP is used to tabulate scores for each responding proposal. Typical evaluation factors include price, delivery, warranty, experience of the vendor and references. The Purchasing Division will coordinate all aspects of the evaluation, scoring, negotiation, and award process. For RFQs, the City must make the award based on demonstrated competence and qualifications to preform the services. The City shall select the most highly qualified provider and then attempt to negotiate a contract of fair and reasonable price. For both solicitation methods, the City Council has final award approval.

### **4. Purchases of Architecture and Engineering Services Valued More Than \$25,000**

Purchases of architecture and engineering services valued more than \$25,000 must be advertised for two consecutive weeks in a newspaper of general circulation. For architecture and engineering services, the City utilizes the RFQ solicitation method. For RFQs, the City must make the award based on demonstrated competence and qualifications to preform the services. The City shall select the most highly qualified provider and then attempt to negotiate a contract of fair and reasonable price.

Architecture and engineering services, when procured in relation to construction services, are managed by the Transportation/Public Works, Engineering, and Water and Environmental Management Departments. This includes the preparation of specifications, issuing and evaluating statements of qualifications, and recommending awards. Otherwise, architecture and engineering services are procured through the Purchasing Division.



## **V. EXEMPTIONS FROM THE CITY'S PROCUREMENT PROCESS**

Certain procurements are generally exempt from the City's bidding process. As described below, there are three types of exempt procurements.

### **A. Cooperative Purchases**

Cooperative purchases are defined as two or more governmental entities coordinate some or all of each entity's purchasing efforts to reduce administrative costs, take advantage of quality discounts, share specifications, and create a heightened awareness of the legal requirements. Cooperative purchases occur through interlocal agreements and purchases from State contracts.

### **B. Emergency Purchases**

Emergency purchases are defined by one of the following criteria:

- A public calamity that requires the immediate appropriation of money to relieve the necessity of the City's residents or to preserve the property of the municipality;
- A preservation or protection of public health or safety of the City residents;
- An unforeseen damage to public machinery, equipment, or other property

If practical, the Purchasing Division will seek to obtain three informal quotes. All emergency purchases must be signed by a department head after approval from the Department of Law and the Purchasing Manager. Emergency purchases valued more than \$25,000 must be approved by the City Council.

### **C. Sole Source Purchases**

Sole source purchases are defined as those purchases in which only one vendor can provide the item or service requested. If the user department determines that a requested item or service is only available from a sole source, the requester must complete a Request for Sole Source Procurement form. Departments will utilize this form for expenditures valued more than \$3,000 to properly identify the reason for the sole source and provide a background summary of the condition, explaining why only one source of supply exists.



## **VI. MINORITY AND WOMEN-OWNED BUSINESS ENTERPRISE PROGRAM**

It is the policy of the City of Fort Worth to provide a remedy for past underutilization of qualified minority and women-owned business enterprises (M/WBEs) and prevent ongoing underutilization of M/WBEs in the City's contracting processes. To meet the objectives of the M/WBE program, the City Manager recommends a reasonable annual goal to the City Council. The goal is expressed in terms of a percentage of the total dollar value of all applicable contracts awarded by the City. Additionally, individual project goals shall be set by the M/WBE Office in collaboration with the Contract Officer and Risk Management prior to solicitation. A detailed description of the City's M/WBE program is discussed in *Chapter 8: Recommendations*.



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# 2

## **PRIME CONTRACTOR UTILIZATION ANALYSIS**

### **I. INTRODUCTION**

The first step in a disparity study is the analysis of expenditures to document contracting history in the jurisdiction under review. The objective of the prime utilization analysis is to determine the level of minority and woman-owned business enterprise (M/WBE) utilization as prime contractors.

This chapter documents the City of Fort Worth's (City) utilization of minority-owned prime contractors (by ethnic group) and woman-owned prime contractors from October 1, 2002 to September 30, 2007. The analysis of the City's expenditures during the study period was classified into five industries. The industries are construction, architecture and engineering, professional services, non-professional services, and goods. Construction included public work for new construction, remodeling, renovation, maintenance, demolition and repair of any public structure or building, and other public improvements. Architecture and engineering included construction management, landscape architecture, surveying, mapping services, and architecture and engineering. Professional services included services provided by attorneys, accountants, medical professionals, technical services, research planning, and consultants. Non-professional services included maintenance and other services which could be performed without a professional license, special education, or training. Goods included materials, supplies, and equipment.

The data in the Study is disaggregated into nine ethnic and gender groups. The nine groups are listed below in Table 2.01.



**Table 2.01 Business Ethnic and Gender Groups**

Ethnicity and Gender Category	Definition
African American Businesses	Businesses owned by male and female African Americans
Asian American Businesses	Businesses owned by male and female Asian-Pacific and Subcontinent Asian Americans
Hispanic American Businesses	Businesses owned by male and female Hispanic Americans
Native American Businesses	Businesses owned by male and female Native Americans
Caucasian Female Business Enterprises	Businesses owned by Caucasian females
Minority Business Enterprises	Businesses owned by African American, Asian American, Hispanic American, and Native American males and females
Women Business Enterprises	Businesses owned by Caucasian females
Minority and Women Business Enterprises	Businesses owned by Minority males, Minority females, and Caucasian females
Non-Minority and Non-Women Business Enterprises	Businesses owned by Caucasian males and businesses that did not declare their ethnicity or could not be identified as minority or female-owned <sup>1</sup>

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<sup>1</sup> See Section II Prime Contract Data Sources for the methodology employed to identify the ethnicity and gender of the City's utilized prime contractors



## **II. PRIME CONTRACT DATA SOURCES**

The dataset analyzed for prime contractor utilization consists of awards and payments from purchase orders issued by the City during the study period. These purchase orders were grouped by the PO number and vendor number to create a unique list of transactions. In this study, all unique transactions are referred to as contracts.

The contract records were extracted from the BuySpeed financial system used by the City. Mason Tillman, in collaboration with Fort Worth, verified and cleaned the data to remove duplicates and identified and completed missing or incomplete data.

Each contract was classified into one of the five industries: construction, architecture and engineering, professional services, non-professional services, and goods. Contracts with non-profits, government agencies, and utilities, were marked for exclusion. The industry classifications were reviewed and approved by the City.

When the industry classifications were approved, the ethnicity and gender were verified. The ethnicity and gender information for prime contractors was incomplete, and some records had to be reconstructed, a common problem with government records. Since ethnicity and gender information is central to the validity of the prime contractor utilization analysis, Mason Tillman conducted research to verify the ethnicity and gender for each contract. Prime contractor names were cross-referenced with certification lists, chambers of commerce and trade organization membership directories. Websites were reviewed for ethnicity and gender of the owner(s). Prime contractors whose ethnicity and gender could not be verified through published sources were surveyed.

Once the contract records were cleaned and the ethnicity and gender verified, the utilization analysis was performed.



**III. PRIME CONTRACTOR UTILIZATION THRESHOLDS**

Contracts within each of the five industries were analyzed at three dollar levels. One category included all contracts regardless of size. A second size category included all contracts under \$500,000. This was the level where there was a demonstrated capacity within the pool of willing M/WBEs to perform the City’s contracts. The third size category included the informal contracts which did not require advertising. As seen in Table 2.02, the informal contract threshold was \$25,000 and under for all five industries.

**Table 2.02 Informal Contract Thresholds for The City**

Industry	Informal Contract Threshold
Construction	\$25,000
Architecture and Engineering	\$25,000
Professional Services	\$25,000
Non-Professional Services	\$25,000
Goods	\$25,000



## **IV. PRIME CONTRACTOR UTILIZATION**

### **A. All Prime Contractors**

As depicted in Table 2.03 below, the City issued 20,160 purchase orders during the October 1, 2002 to September 30, 2007 study period. These transactions are referred to as contracts in this study. The 20,160 contracts included 1,111 for construction, 662 for architecture and engineering, 2,773 for professional services, 8,578 for non-professional services, and 7,036 for goods.

The payments made by the City during the study period totaled \$1,351,310,036 for all 20,160 contracts. These expenditures included \$638,173,133 for construction, \$68,349,670 for architecture and engineering, \$68,839,866 for professional services, \$339,530,159 for non-professional services, and \$236,417,209 for goods.

**Table 2.03 Total Prime Contracts and Dollars Expended: All Industries, October 1, 2002 to September 30, 2007**

<b>Industry</b>	<b>Total Number of Contracts</b>	<b>Total Dollars Expended</b>
Construction	1,111	\$638,173,133
Architecture and Engineering	662	\$68,349,670
Professional Services	2,773	\$68,839,866
Non-Professional Services	8,578	\$339,530,159
Goods	7,036	\$236,417,209
<b>Total Expenditures</b>	<b>20,160</b>	<b>\$1,351,310,036</b>



## **B. Highly Used Prime Contractors**

As depicted in Table 2.04 below, the City's 20,160 prime contracts were received by 4,704 vendors.

**Table 2.04 Total Prime Contracts, Utilized Vendors, and Dollars Expended: All Industries, October 1, 2002 to September 30, 2007**

Total Contracts	20,160
Total Utilized Vendors	4,704
Total Expenditures	\$1,351,310,036

Twenty-two of the 4,704 vendors received 50 percent of the 20,160 prime contracts. Four vendors representing 0.09 percent of all vendors utilized during the study period, received \$360,506,117 or 27 percent of the contract dollars. Table 2.05 below depicts the distribution of the total prime contracts, by number of vendors.

**Table 2.05 Distribution of All Contracts by Number of Vendors**

<b>Vendors</b>	<b>Total Dollars</b>	<b>Percent of Dollars</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>
4 Vendors Received	\$360,506,117	27%	73	0.36%
22 Vendors Received	\$682,490,434	50%	495	2.46%
41 Vendors Received	\$812,891,523	60%	796	3.95%
4,663 Vendors Received	\$538,418,513	40%	19,364	96.05%
4,704 Vendors Received	\$1,351,310,036	100%	20,160	100.00%

Table 2.06 below presents the ethnic and gender profile of the 22 most highly used prime contractors. All of the highly used prime contractors were either Caucasian female or Non-Minority and Non-Women businesses. The individual contracts received by these 22 businesses ranged from \$30.86 to \$43,788,326.74.



**Table 2.06 Top Twenty-Two Highly Used Prime Contractors  
by Ethnicity and Gender**

<b>Ethnicity/Gender</b>	<b>Total Dollars</b>	<b>Percent of Dollars</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>
African Americans	\$0	0%	0	0%
Asian Americans	\$0	0%	0	0%
Hispanic Americans	\$0	0%	0	0%
Native Americans	\$0	0%	0	0%
Caucasian Females	\$14,864,220	2.18%	14	2.83%
Non-Minority and Non-Women	\$667,626,214	97.82%	481	97.17%
<b>Total</b>	<b>\$682,490,434</b>	<b>100.00%</b>	<b>495</b>	<b>100.00%</b>



## **C. All Prime Contracts, by Industry**

### **1. Construction Prime Contractor Utilization: All Contracts**

Table 2.07 summarizes all prime contract dollars expended by the City on construction contracts. Minority Business Enterprises received 3.14 percent of the construction prime contract dollars; Women Business Enterprises received 4.75 percent; and Non-Minority and Non-Women Business Enterprises received 92.11 percent.

*African Americans* received 18 or 1.62 percent of the construction contracts during the study period, representing \$1,252,051 or 0.2 percent of the contract dollars.

*Asian Americans* received 31 or 2.79 percent of the construction contracts during the study period, representing \$2,068,591 or 0.32 percent of the contract dollars.

*Hispanic Americans* received 76 or 6.84 percent of the construction contracts during the study period, representing \$16,602,259 or 2.6 percent of the contract dollars.

*Native Americans* received 5 or 0.45 percent of the construction contracts during the study period, representing \$173,004 or 0.03 percent of the contract dollars.

*Minority Business Enterprises* received 130 or 11.7 percent of the construction contracts during the study period, representing \$20,067,950 or 3.14 percent of the contract dollars.

*Women Business Enterprises* received 114 or 10.26 percent of the construction contracts during the study period, representing \$30,307,644 or 4.75 percent of the contract dollars.

*Minority and Women Business Enterprises* received 244 or 21.96 percent of the construction contracts during the study period, representing \$50,375,595 or 7.89 percent of the contract dollars.

*Non-Minority and Non-Women Business Enterprises* received 867 or 78.04 percent of the construction contracts during the study period, representing \$587,797,538 or 92.11 percent of the contract dollars.



**Table 2.07 Construction Prime Contractor Utilization: All  
Contracts, October 1, 2002 to September 30, 2007**

<b>Ethnicity<sup>^</sup></b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
African Americans	18	1.62%	\$1,252,051	0.20%
Asian Americans	31	2.79%	\$2,068,591	0.32%
Hispanic Americans	76	6.84%	\$16,602,259	2.60%
Native Americans	5	0.45%	\$145,049	0.02%
Caucasian Females	114	10.26%	\$30,307,644	4.75%
Non-Minority Males	867	78.04%	\$587,797,538	92.11%
<b>TOTAL</b>	<b>1,111</b>	<b>100.00%</b>	<b>\$638,173,133</b>	<b>100.00%</b>
<b>Ethnicity and Gender</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
African American Females	3	0.27%	\$150,652	0.02%
African American Males	15	1.35%	\$1,101,399	0.17%
Asian American Females	0	0.00%	\$0	0.00%
Asian American Males	31	2.79%	\$2,068,591	0.32%
Hispanic American Females	6	0.54%	\$7,982,742	1.25%
Hispanic American Males	70	6.30%	\$8,619,517	1.35%
Native American Females	4	0.36%	\$102,113	0.02%
Native American Males	1	0.09%	\$42,936	0.01%
Caucasian Females	114	10.26%	\$30,307,644	4.75%
Non-Minority Males	867	78.04%	\$587,797,538	92.11%
<b>TOTAL</b>	<b>1,111</b>	<b>100.00%</b>	<b>\$638,173,133</b>	<b>100.00%</b>
<b>Minority and Gender</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
Minority Females	13	1.17%	\$8,235,507	1.29%
Minority Males	117	10.53%	\$11,832,443	1.85%
Caucasian Females	114	10.26%	\$30,307,644	4.75%
Non-Minority Males	867	78.04%	\$587,797,538	92.11%
<b>TOTAL</b>	<b>1,111</b>	<b>100.00%</b>	<b>\$638,173,133</b>	<b>100.00%</b>
<b>Minority and Women</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
Minority Business Enterprises	130	11.70%	\$20,067,950	3.14%
Women Business Enterprises	114	10.26%	\$30,307,644	4.75%
<b>Minority and Women Business Enterprises</b>	<b>244</b>	<b>21.96%</b>	<b>\$50,375,595</b>	<b>7.89%</b>
Non-Minority and Non-Women Business Enterprises	867	78.04%	\$587,797,538	92.11%
<b>TOTAL</b>	<b>1,111</b>	<b>100.00%</b>	<b>\$638,173,133</b>	<b>100.00%</b>

<sup>^</sup> See Chapter 2: Prime Contractor Utilization Analysis, Table 2.01 for a definition of each ethnic and gender group



## 2. Architecture and Engineering Prime Contractor Utilization: All Contracts

Table 2.08 summarizes all contract dollars expended by the City on architecture and engineering prime contracts. Minority Business Enterprises received 7.81 percent of the architecture and engineering prime contract dollars; Women Business Enterprises received 3.39 percent; and Non-Minority and Non-Women Business Enterprises received 88.81 percent.

*African Americans* received 21 or 3.17 percent of the architecture and engineering contracts during the study period, representing \$1,832,863 or 2.68 percent of the contract dollars.

*Asian Americans* received 31 or 4.68 percent of the architecture and engineering contracts during the study period, representing \$773,028 or 1.13 percent of the contract dollars.

*Hispanic Americans* received 37 or 5.59 percent of the architecture and engineering contracts during the study period, representing \$2,729,333 or 3.99 percent of the contract dollars.

*Native Americans* received none of the architecture and engineering contracts during the study period.

*Minority Business Enterprises* received 89 or 13.44 percent of the architecture and engineering contracts during the study period, representing \$5,335,224 or 7.81 percent of the contract dollars.

*Women Business Enterprises* received 56 or 8.46 percent of the architecture and engineering contracts during the study period, representing \$2,314,957 or 3.39 percent of the contract dollars.

*Minority and Women Business Enterprises* received 145 or 21.9 percent of the architecture and engineering contracts during the study period, representing \$7,650,180 or 11.19 percent of the contract dollars.

*Non-Minority and Non-Women Business Enterprises* received 517 or 78.1 percent of the architecture and engineering contracts during the study period, representing \$60,699,490 or 88.81 percent of the contract dollars.



**Table 2.08 Architecture and Engineering Prime Contractor  
Utilization: All Contracts, October 1, 2002 to September 30,  
2007**

<b>Ethnicity<sup>^</sup></b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
African Americans	21	3.17%	\$1,832,863	2.68%
Asian Americans	31	4.68%	\$773,028	1.13%
Hispanic Americans	37	5.59%	\$2,729,333	3.99%
Native Americans	0	0.00%	\$0	0.00%
Caucasian Females	56	8.46%	\$2,314,957	3.39%
Non-Minority Males	517	78.10%	\$60,699,490	88.81%
<b>TOTAL</b>	<b>662</b>	<b>100.00%</b>	<b>\$68,349,670</b>	<b>100.00%</b>
<b>Ethnicity and Gender</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
African American Females	2	0.30%	\$65,935	0.10%
African American Males	19	2.87%	\$1,766,928	2.59%
Asian American Females	2	0.30%	\$76,665	0.11%
Asian American Males	29	4.38%	\$696,362	1.02%
Hispanic American Females	20	3.02%	\$1,279,452	1.87%
Hispanic American Males	17	2.57%	\$1,449,881	2.12%
Native American Females	0	0.00%	\$0	0.00%
Native American Males	0	0.00%	\$0	0.00%
Caucasian Females	56	8.46%	\$2,314,957	3.39%
Non-Minority Males	517	78.10%	\$60,699,490	88.81%
<b>TOTAL</b>	<b>662</b>	<b>100.00%</b>	<b>\$68,349,670</b>	<b>100.00%</b>
<b>Minority and Gender</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
Minority Females	24	3.63%	\$1,422,053	2.08%
Minority Males	65	9.82%	\$3,913,171	5.73%
Caucasian Females	56	8.46%	\$2,314,957	3.39%
Non-Minority Males	517	78.10%	\$60,699,490	88.81%
<b>TOTAL</b>	<b>662</b>	<b>100.00%</b>	<b>\$68,349,670</b>	<b>100.00%</b>
<b>Minority and Women</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
Minority Business Enterprises	89	13.44%	\$5,335,224	7.81%
Women Business Enterprises	56	8.46%	\$2,314,957	3.39%
<b>Minority and Women Business Enterprises</b>	<b>145</b>	<b>21.90%</b>	<b>\$7,650,180</b>	<b>11.19%</b>
Non-Minority and Non-Women Business Enterprises	517	78.10%	\$60,699,490	88.81%
<b>TOTAL</b>	<b>662</b>	<b>100.00%</b>	<b>\$68,349,670</b>	<b>100.00%</b>

<sup>^</sup> See Chapter 2: Prime Contractor Utilization Analysis, Table 2.01 for a definition of each ethnic and gender group



### 3. Professional Services Prime Contractor Utilization: All Contracts

Table 2.09 summarizes all contract dollars expended by the City on professional services prime contracts. Minority Business Enterprises received 5.52 percent of the professional services prime contract dollars; Women Business Enterprises received 2.21 percent; and Non-Minority and Non-Women Business Enterprises received 92.27 percent.

*African Americans* received 96 or 3.46 percent of the professional services contracts during the study period, representing \$1,274,036 or 1.85 percent of the contract dollars.

*Asian Americans* received 20 or 0.72 percent of the professional services contracts during the study period, representing \$905,383 or 1.32 percent of the contract dollars.

*Hispanic Americans* received 42 or 1.51 percent of the professional services contracts during the study period, representing \$1,608,195 or 2.34 percent of the contract dollars.

*Native Americans* received 5 or 0.18 percent of the professional services contracts during the study period, representing \$9,145 or 0.01 percent of the contract dollars.

*Minority Business Enterprises* received 163 or 5.88 percent of the professional services contracts during the study period, representing \$3,796,759 or 5.52 percent of the contract dollars.

*Women Business Enterprises* received 127 or 4.58 percent of the professional services contracts during the study period, representing \$1,521,496 or 2.21 percent of the contract dollars.

*Minority and Women Business Enterprises* received 290 or 10.46 percent of the professional services contracts during the study period, representing \$5,318,254 or 7.73 percent of the contract dollars.

*Non-Minority and Non-Women Business Enterprises* received 2,483 or 89.54 percent of the professional services contracts during the study period, representing \$63,521,611 or 92.27 percent of the contract dollars.



**Table 2.09 Professional Services Prime Contractor Utilization:  
All Contracts, October 1, 2002 to September 30, 2007**

<b>Ethnicity<sup>^</sup></b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
African Americans	96	3.46%	\$1,274,036	1.85%
Asian Americans	20	0.72%	\$905,383	1.32%
Hispanic Americans	42	1.51%	\$1,608,195	2.34%
Native Americans	5	0.18%	\$9,145	0.01%
Caucasian Females	127	4.58%	\$1,521,496	2.21%
Non-Minority Males	2,483	89.54%	\$63,521,611	92.27%
<b>TOTAL</b>	<b>2,773</b>	<b>100.00%</b>	<b>\$68,839,866</b>	<b>100.00%</b>
<b>Ethnicity and Gender</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
African American Females	29	1.05%	\$240,253	0.35%
African American Males	67	2.42%	\$1,033,783	1.50%
Asian American Females	1	0.04%	\$2,720	0.00%
Asian American Males	19	0.69%	\$902,663	1.31%
Hispanic American Females	11	0.40%	\$215,477	0.31%
Hispanic American Males	31	1.12%	\$1,392,717	2.02%
Native American Females	0	0.00%	\$0	0.00%
Native American Males	5	0.18%	\$9,145	0.01%
Caucasian Females	127	4.58%	\$1,521,496	2.21%
Non-Minority Males	2,483	89.54%	\$63,521,611	92.27%
<b>TOTAL</b>	<b>2,773</b>	<b>100.00%</b>	<b>\$68,839,866</b>	<b>100.00%</b>
<b>Minority and Gender</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
Minority Females	41	1.48%	\$458,450	0.67%
Minority Males	122	4.40%	\$3,338,309	4.85%
Caucasian Females	127	4.58%	\$1,521,496	2.21%
Non-Minority Males	2,483	89.54%	\$63,521,611	92.27%
<b>TOTAL</b>	<b>2,773</b>	<b>100.00%</b>	<b>\$68,839,866</b>	<b>100.00%</b>
<b>Minority and Women</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
Minority Business Enterprises	163	5.88%	\$3,796,759	5.52%
Women Business Enterprises	127	4.58%	\$1,521,496	2.21%
<b>Minority and Women Business Enterprises</b>	<b>290</b>	<b>10.46%</b>	<b>\$5,318,254</b>	<b>7.73%</b>
Non-Minority and Non-Women Business Enterprises	2,483	89.54%	\$63,521,611	92.27%
<b>TOTAL</b>	<b>2,773</b>	<b>100.00%</b>	<b>\$68,839,866</b>	<b>100.00%</b>

<sup>^</sup> See Chapter 2: Prime Contractor Utilization Analysis, Table 2.01 for a definition of each ethnic and gender group



#### 4. Non-Professional Services Prime Contractor Utilization: All Contracts

Table 2.10 summarizes all contract dollars expended by the City on non-professional services prime contracts. Minority Business Enterprises received 4.5 percent of the non-professional services prime contract dollars; Women Business Enterprises received 2.76 percent; and Non-Minority and Non-Women Business Enterprises received 92.74 percent.

*African Americans* received 141 or 1.64 percent of the non-professional services contracts during the study period, representing \$6,849,869 or 2.02 percent of the contract dollars.

*Asian Americans* received 62 or 0.72 percent of the non-professional services contracts during the study period, representing \$1,545,798 or 0.46 percent of the contract dollars.

*Hispanic Americans* received 255 or 2.97 percent of the non-professional services contracts during the study period, representing \$6,694,511 or 1.97 percent of the contract dollars.

*Native Americans* received 14 or 0.16 percent of the non-professional services contracts during the study period, representing \$198,566 or 0.06 percent of the contract dollars.

*Minority Business Enterprises* received 472 or 5.5 percent of the non-professional services contracts during the study period, representing \$15,288,743 or 4.5 percent of the contract dollars.

*Women Business Enterprises* received 541 or 6.31 percent of the non-professional services contracts during the study period, representing \$9,358,394 or 2.76 percent of the contract dollars.

*Minority and Women Business Enterprises* received 1,013 or 11.81 percent of the non-professional services contracts during the study period, representing \$24,647,137 or 7.26 percent of the contract dollars.

*Non-Minority and Non-Women Business Enterprises* received 7,565 or 88.19 percent of the non-professional services contracts during the study period, representing \$314,883,022 or 92.74 percent of the contract dollars.



**Table 2.10 Non-Professional Services Prime Contractor  
Utilization: All Contracts, October 1, 2002 to September 30,  
2007**

<b>Ethnicity<sup>^</sup></b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
African Americans	141	1.64%	\$6,849,869	2.02%
Asian Americans	62	0.72%	\$1,545,798	0.46%
Hispanic Americans	255	2.97%	\$6,694,511	1.97%
Native Americans	14	0.16%	\$198,566	0.06%
Caucasian Females	541	6.31%	\$9,358,394	2.76%
Non-Minority Males	7,565	88.19%	\$314,883,022	92.74%
<b>TOTAL</b>	<b>8,578</b>	<b>100.00%</b>	<b>\$339,530,159</b>	<b>100.00%</b>
<b>Ethnicity and Gender</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
African American Females	48	0.56%	\$2,865,937	0.84%
African American Males	93	1.08%	\$3,983,932	1.17%
Asian American Females	14	0.16%	\$40,222	0.01%
Asian American Males	48	0.56%	\$1,505,575	0.44%
Hispanic American Females	30	0.35%	\$1,047,957	0.31%
Hispanic American Males	225	2.62%	\$5,646,553	1.66%
Native American Females	5	0.06%	\$152,049	0.04%
Native American Males	9	0.10%	\$46,517	0.01%
Caucasian Females	541	6.31%	\$9,358,394	2.76%
Non-Minority Males	7,565	88.19%	\$314,883,022	92.74%
<b>TOTAL</b>	<b>8,578</b>	<b>100.00%</b>	<b>\$339,530,159</b>	<b>100.00%</b>
<b>Minority and Gender</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
Minority Females	97	1.13%	\$4,106,166	1.21%
Minority Males	375	4.37%	\$11,182,577	3.29%
Caucasian Females	541	6.31%	\$9,358,394	2.76%
Non-Minority Males	7,565	88.19%	\$314,883,022	92.74%
<b>TOTAL</b>	<b>8,578</b>	<b>100.00%</b>	<b>\$339,530,159</b>	<b>100.00%</b>
<b>Minority and Women</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
Minority Business Enterprises	472	5.50%	\$15,288,743	4.50%
Women Business Enterprises	541	6.31%	\$9,358,394	2.76%
<b>Minority and Women Business Enterprises</b>	<b>1,013</b>	<b>11.81%</b>	<b>\$24,647,137</b>	<b>7.26%</b>
Non-Minority and Non-Women Business Enterprises	7,565	88.19%	\$314,883,022	92.74%
<b>TOTAL</b>	<b>8,578</b>	<b>100.00%</b>	<b>\$339,530,159</b>	<b>100.00%</b>

<sup>^</sup> See Chapter 2: Prime Contractor Utilization Analysis, Table 2.01 for a definition of each ethnic and gender group



## 5. Goods Prime Contractor Utilization: All Contracts

Table 2.11 summarizes all contract dollars expended by the City on goods prime contracts. Minority Business Enterprises received 3.92 percent of the goods prime contract dollars; Women Business Enterprises received 2.71 percent; and Non-Minority and Non-Women Business Enterprises received 93.37 percent.

*African Americans* received 61 or 0.87 percent of the goods contracts during the study period, representing \$145,259 or 0.06 percent of the contract dollars.

*Asian Americans* received 56 or 0.8 percent of the goods contracts during the study period, representing \$4,374,180 or 1.85 percent of the contract dollars.

*Hispanic Americans* received 101 or 1.44 percent of the goods contracts during the study period, representing \$4,540,559 or 1.92 percent of the contract dollars.

*Native Americans* received 26 or 0.37 percent of the goods contracts during the study period, representing \$207,548 or 0.09 percent of the contract dollars.

*Minority Business Enterprises* received 244 or 3.47 percent of the goods contracts during the study period, representing \$9,267,546 or 3.92 percent of the contract dollars.

*Women Business Enterprises* received 466 or 6.62 percent of the goods contracts during the study period, representing \$6,411,838 or 2.71 percent of the contract dollars.

*Minority and Women Business Enterprises* received 710 or 10.09 percent of the goods contracts during the study period, representing \$15,679,383 or 6.63 percent of the contract dollars.

*Non-Minority and Non-Women Business Enterprises* received 6,326 or 89.91 percent of the goods contracts during the study period, representing \$220,737,825 or 93.37 percent of the contract dollars.



**Table 2.11 Goods Prime Contractor Utilization: All Contracts,  
October 1, 2002 to September 30, 2007**

<b>Ethnicity<sup>^</sup></b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
African Americans	61	0.87%	\$145,259	0.06%
Asian Americans	56	0.80%	\$4,374,180	1.85%
Hispanic Americans	101	1.44%	\$4,540,559	1.92%
Native Americans	26	0.37%	\$207,548	0.09%
Caucasian Females	466	6.62%	\$6,411,838	2.71%
Non-Minority Males	6,326	89.91%	\$220,737,825	93.37%
<b>TOTAL</b>	<b>7,036</b>	<b>100.00%</b>	<b>\$236,417,209</b>	<b>100.00%</b>
<b>Ethnicity and Gender</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
African American Females	6	0.09%	\$16,340	0.01%
African American Males	55	0.78%	\$128,920	0.05%
Asian American Females	18	0.26%	\$556,367	0.24%
Asian American Males	38	0.54%	\$3,817,813	1.61%
Hispanic American Females	24	0.34%	\$3,280,880	1.39%
Hispanic American Males	77	1.09%	\$1,259,679	0.53%
Native American Females	14	0.20%	\$62,744	0.03%
Native American Males	12	0.17%	\$144,803	0.06%
Caucasian Females	466	6.62%	\$6,411,838	2.71%
Non-Minority Males	6,326	89.91%	\$220,737,825	93.37%
<b>TOTAL</b>	<b>7,036</b>	<b>100.00%</b>	<b>\$236,417,209</b>	<b>100.00%</b>
<b>Minority and Gender</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
Minority Females	62	0.88%	\$3,916,331	1.66%
Minority Males	182	2.59%	\$5,351,215	2.26%
Caucasian Females	466	6.62%	\$6,411,838	2.71%
Non-Minority Males	6,326	89.91%	\$220,737,825	93.37%
<b>TOTAL</b>	<b>7,036</b>	<b>100.00%</b>	<b>\$236,417,209</b>	<b>100.00%</b>
<b>Minority and Women</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
Minority Business Enterprises	244	3.47%	\$9,267,546	3.92%
Women Business Enterprises	466	6.62%	\$6,411,838	2.71%
<b>Minority and Women Business Enterprises</b>	<b>710</b>	<b>10.09%</b>	<b>\$15,679,383</b>	<b>6.63%</b>
Non-Minority and Non-Women Business Enterprises	6,326	89.91%	\$220,737,825	93.37%
<b>TOTAL</b>	<b>7,036</b>	<b>100.00%</b>	<b>\$236,417,209</b>	<b>100.00%</b>

<sup>^</sup> See Chapter 2: Prime Contractor Utilization Analysis, Table 2.01 for a definition of each ethnic and gender group



## **D. Prime Contracts under \$500,000, by Industry**

### **1. Construction Prime Contractor Utilization: Contracts under \$500,000**

Table 2.12 summarizes all contract dollars expended by the City on construction prime contracts under \$500,000. Minority Business Enterprises received 10.1 percent of the prime contract dollars; Women Business Enterprises received 7.79 percent; and Non-Minority and Non-Women Business Enterprises received 82.11 percent.

*African Americans* received 18 or 2.23 percent of the construction contracts under \$500,000 during the study period, representing \$1,252,051 or 1.67 percent of the contract dollars.

*Asian Americans* received 30 or 3.71 percent of the construction contracts under \$500,000 during the study period, representing \$1,068,981 or 1.43 percent of the contract dollars.

*Hispanic Americans* received 68 or 8.42 percent of the construction contracts under \$500,000 during the study period, representing \$5,113,308 or 6.82 percent of the contract dollars.

*Native Americans* received 5 or 0.62 percent of the construction contracts under \$500,000 during the study period, representing \$145,049 or 0.19 percent of the contract dollars.

*Minority Business Enterprises* received 121 or 14.98 percent of the construction contracts under \$500,000 during the study period, representing \$7,579,390 or 10.1 percent of the contract dollars.

*Women Business Enterprises* received 91 or 11.26 percent of the construction contracts under \$500,000 during the study period, representing \$5,843,146 or 7.79 percent of the contract dollars.

*Minority and Women Business Enterprises* received 212 or 26.24 percent of the construction contracts under \$500,000 during the study period, representing \$13,422,536 or 17.89 percent of the contract dollars.

*Non-Minority and Non-Women Business Enterprises* received 596 or 73.76 percent of the construction contracts under \$500,000 during the study period, representing \$61,587,590 or 82.11 percent of the contract dollars.



**Table 2.12 Construction Prime Contractor Utilization:  
Contracts under \$500,000, October 1, 2002 to September 30,  
2007**

<b>Ethnicity<sup>^</sup></b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
African Americans	18	2.23%	\$1,252,051	1.67%
Asian Americans	30	3.71%	\$1,068,981	1.43%
Hispanic Americans	68	8.42%	\$5,113,308	6.82%
Native Americans	5	0.62%	\$145,049	0.19%
Caucasian Females	91	11.26%	\$5,843,146	7.79%
Non-Minority Males	596	73.76%	\$61,587,590	82.11%
<b>TOTAL</b>	<b>808</b>	<b>100.00%</b>	<b>\$75,010,126</b>	<b>100.00%</b>
<b>Ethnicity and Gender</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
African American Females	3	0.37%	\$150,652	0.20%
African American Males	15	1.86%	\$1,101,399	1.47%
Asian American Females	0	0.00%	\$0	0.00%
Asian American Males	30	3.71%	\$1,068,981	1.43%
Hispanic American Females	4	0.50%	\$226,787	0.30%
Hispanic American Males	64	7.92%	\$4,886,521	6.51%
Native American Females	4	0.50%	\$102,113	0.14%
Native American Males	1	0.12%	\$42,936	0.06%
Caucasian Females	91	11.26%	\$5,843,146	7.79%
Non-Minority Males	596	73.76%	\$61,587,590	82.11%
<b>TOTAL</b>	<b>808</b>	<b>100.00%</b>	<b>\$75,010,126</b>	<b>100.00%</b>
<b>Minority and Gender</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
Minority Females	11	1.36%	\$479,552	0.64%
Minority Males	110	13.61%	\$7,099,838	9.47%
Caucasian Females	91	11.26%	\$5,843,146	7.79%
Non-Minority Males	596	73.76%	\$61,587,590	82.11%
<b>TOTAL</b>	<b>808</b>	<b>100.00%</b>	<b>\$75,010,126</b>	<b>100.00%</b>
<b>Minority and Women</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
Minority Business Enterprises	121	14.98%	\$7,579,390	10.10%
Women Business Enterprises	91	11.26%	\$5,843,146	7.79%
<b>Minority and Women Business Enterprises</b>	<b>212</b>	<b>26.24%</b>	<b>\$13,422,536</b>	<b>17.89%</b>
Non-Minority and Non-Women Business Enterprises	596	73.76%	\$61,587,590	82.11%
<b>TOTAL</b>	<b>808</b>	<b>100.00%</b>	<b>\$75,010,126</b>	<b>100.00%</b>

<sup>^</sup> See Chapter 2: Prime Contractor Utilization Analysis, Table 2.01 for a definition of each ethnic and gender group



## **2. Architecture and Engineering Prime Contractor Utilization: Contracts under \$500,000**

Table 2.13 summarizes all contract dollars expended by the City on architecture and engineering prime contracts under \$500,000. Minority Business Enterprises received 12.45 percent of the architecture and engineering prime contract dollars; Women Business Enterprises received 6.06 percent; and Non-Minority and Non-Women Business Enterprises received 81.49 percent.

*African Americans* received 20 or 3.15 percent of the architecture and engineering contracts under \$500,000 during the study period, representing \$1,250,433 or 3.28 percent of the contract dollars.

*Asian Americans* received 31 or 4.89 percent of the architecture and engineering contracts under \$500,000 during the study period, representing \$773,028 or 2.02 percent of the contract dollars.

*Hispanic Americans* received 37 or 5.84 percent of the architecture and engineering contracts under \$500,000 during the study period, representing \$2,729,333 or 7.15 percent of the contract dollars.

*Native Americans* received none of the architecture and engineering contracts under \$500,000 during the study period.

*Minority Business Enterprises* received 88 or 13.88 percent of the architecture and engineering contracts under \$500,000 during the study period, representing \$4,752,794 or 12.45 percent of the contract dollars.

*Women Business Enterprises* received 56 or 8.83 percent of the architecture and engineering contracts under \$500,000 during the study period, representing \$2,314,957 or 6.06 percent of the contract dollars.

*Minority and Women Business Enterprises* received 144 or 22.71 percent of the architecture and engineering contracts under \$500,000 during the study period, representing \$7,067,751 or 18.51 percent of the contract dollars.

*Non-Minority and Non-Women Business Enterprises* received 490 or 77.29 percent of the architecture and engineering contracts under \$500,000 during the study period, representing \$31,107,535 or 81.49 percent of the contract dollars.



**Table 2.13 Architecture and Engineering Prime Contractor  
Utilization: Contracts under \$500,000, October 1, 2002 to  
September 30, 2007**

<b>Ethnicity<sup>^</sup></b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
African Americans	20	3.15%	\$1,250,433	3.28%
Asian Americans	31	4.89%	\$773,028	2.02%
Hispanic Americans	37	5.84%	\$2,729,333	7.15%
Native Americans	0	0.00%	\$0	0.00%
Caucasian Females	56	8.83%	\$2,314,957	6.06%
Non-Minority Males	490	77.29%	\$31,107,535	81.49%
<b>TOTAL</b>	<b>634</b>	<b>100.00%</b>	<b>\$38,175,285</b>	<b>100.00%</b>
<b>Ethnicity and Gender</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
African American Females	2	0.32%	\$65,935	0.17%
African American Males	18	2.84%	\$1,184,499	3.10%
Asian American Females	2	0.32%	\$76,665	0.20%
Asian American Males	29	4.57%	\$696,362	1.82%
Hispanic American Females	20	3.15%	\$1,279,452	3.35%
Hispanic American Males	17	2.68%	\$1,449,881	3.80%
Native American Females	0	0.00%	\$0	0.00%
Native American Males	0	0.00%	\$0	0.00%
Caucasian Females	56	8.83%	\$2,314,957	6.06%
Non-Minority Males	490	77.29%	\$31,107,535	81.49%
<b>TOTAL</b>	<b>634</b>	<b>100.00%</b>	<b>\$38,175,285</b>	<b>100.00%</b>
<b>Minority and Gender</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
Minority Females	24	3.79%	\$1,422,053	3.73%
Minority Males	64	10.09%	\$3,330,742	8.72%
Caucasian Females	56	8.83%	\$2,314,957	6.06%
Non-Minority Males	490	77.29%	\$31,107,535	81.49%
<b>TOTAL</b>	<b>634</b>	<b>100.00%</b>	<b>\$38,175,285</b>	<b>100.00%</b>
<b>Minority and Women</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
Minority Business Enterprises	88	13.88%	\$4,752,794	12.45%
Women Business Enterprises	56	8.83%	\$2,314,957	6.06%
<b>Minority and Women Business Enterprises</b>	<b>144</b>	<b>22.71%</b>	<b>\$7,067,751</b>	<b>18.51%</b>
Non-Minority and Non-Women Business Enterprises	490	77.29%	\$31,107,535	81.49%
<b>TOTAL</b>	<b>634</b>	<b>100.00%</b>	<b>\$38,175,285</b>	<b>100.00%</b>

<sup>^</sup> See Chapter 2: Prime Contractor Utilization Analysis, Table 2.01 for a definition of each ethnic and gender group



### **3. Professional Services Prime Contractor Utilization: Contracts under \$500,000**

Table 2.14 summarizes all contract dollars expended by the City on professional services prime contracts under \$500,000. Minority Business Enterprises received 8.50 percent of the professional services prime contract dollars; Women Business Enterprises received 3.41 percent; and Non-Minority and Non-Women Business Enterprises received 88.09 percent.

*African Americans* received 96 or 3.49 percent of the professional services contracts under \$500,000 during the study period, representing \$1,274,036 or 2.85 percent of the contract dollars.

*Asian Americans* received 20 or 0.73 percent of the professional services contracts under \$500,000 during the study period, representing \$905,383 or 2.03 percent of the contract dollars.

*Hispanic Americans* received 42 or 1.53 percent of the professional services contracts under \$500,000 during the study period, representing \$1,608,195 or 3.6 percent of the contract dollars.

*Native Americans* received 5 or 0.18 percent of the professional services contracts under \$500,000 during the study period, representing \$9,145 or 0.02 percent of the contract dollars.

*Minority Business Enterprises* received 163 or 5.92 percent of the professional services contracts under \$500,000 during the study period, representing \$3,796,759 or 8.5 percent of the contract dollars.

*Women Business Enterprises* received 127 or 4.61 percent of the professional services contracts under \$500,000 during the study period, representing \$1,521,496 or 3.41 percent of the contract dollars.

*Minority and Women Business Enterprises* received 290 or 10.54 percent of the professional services contracts under \$500,000 during the study period, representing \$5,318,254 or 11.91 percent of the contract dollars.

*Non-Minority and Non-Women Business Enterprises* received 2,462 or 89.46 percent of the professional services contracts under \$500,000 during the study period, representing \$39,353,043 or 88.09 percent of the contract dollars.



**Table 2.14 Professional Services Prime Contractor Utilization:  
Contracts under \$500,000, October 1, 2002 to September 30,  
2007**

<b>Ethnicity<sup>^</sup></b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
African Americans	96	3.49%	\$1,274,036	2.85%
Asian Americans	20	0.73%	\$905,383	2.03%
Hispanic Americans	42	1.53%	\$1,608,195	3.60%
Native Americans	5	0.18%	\$9,145	0.02%
Caucasian Females	127	4.61%	\$1,521,496	3.41%
Non-Minority Males	2,462	89.46%	\$39,353,043	88.09%
<b>TOTAL</b>	<b>2,752</b>	<b>100.00%</b>	<b>\$44,671,297</b>	<b>100.00%</b>
<b>Ethnicity and Gender</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
African American Females	29	1.05%	\$240,253	0.54%
African American Males	67	2.43%	\$1,033,783	2.31%
Asian American Females	1	0.04%	\$2,720	0.01%
Asian American Males	19	0.69%	\$902,663	2.02%
Hispanic American Females	11	0.40%	\$215,477	0.48%
Hispanic American Males	31	1.13%	\$1,392,717	3.12%
Native American Females	0	0.00%	\$0	0.00%
Native American Males	5	0.18%	\$9,145	0.02%
Caucasian Females	127	4.61%	\$1,521,496	3.41%
Non-Minority Males	2,462	89.46%	\$39,353,043	88.09%
<b>TOTAL</b>	<b>2,752</b>	<b>100.00%</b>	<b>\$44,671,297</b>	<b>100.00%</b>
<b>Minority and Gender</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
Minority Females	41	1.49%	\$458,450	1.03%
Minority Males	122	4.43%	\$3,338,309	7.47%
Caucasian Females	127	4.61%	\$1,521,496	3.41%
Non-Minority Males	2,462	89.46%	\$39,353,043	88.09%
<b>TOTAL</b>	<b>2,752</b>	<b>100.00%</b>	<b>\$44,671,297</b>	<b>100.00%</b>
<b>Minority and Women</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
Minority Business Enterprises	163	5.92%	\$3,796,759	8.50%
Women Business Enterprises	127	4.61%	\$1,521,496	3.41%
<b>Minority and Women Business Enterprises</b>	<b>290</b>	<b>10.54%</b>	<b>\$5,318,254</b>	<b>11.91%</b>
Non-Minority and Non-Women Business Enterprises	2,462	89.46%	\$39,353,043	88.09%
<b>TOTAL</b>	<b>2,752</b>	<b>100.00%</b>	<b>\$44,671,297</b>	<b>100.00%</b>

<sup>^</sup> See Chapter 2: Prime Contractor Utilization Analysis, Table 2.01 for a definition of each ethnic and gender group



#### **4. Non-Professional Services Prime Contractor Utilization: Contracts under \$500,000**

Table 2.15 summarizes all contract dollars expended by the City on non-professional services prime contracts under \$500,000. Minority Business Enterprises received 9.24 percent of the non-professional services prime contract dollars; Women Business Enterprises received 6.55 percent; and Non-Minority and Non-Women Business Enterprises received 84.21 percent.

*African Americans* received 139 or 1.64 percent of the non-professional services contracts under \$500,000 during the study period, representing \$5,589,029 or 4.41 percent of the contract dollars.

*Asian Americans* received 62 or 0.73 percent of the non-professional services contracts under \$500,000 during the study period, representing \$1,545,798 or 1.22 percent of the contract dollars.

*Hispanic Americans* received 253 or 2.98 percent of the non-professional services contracts under \$500,000 during the study period, representing \$4,372,524 or 3.45 percent of the contract dollars.

*Native Americans* received 14 or 0.17 percent of the non-professional services contracts under \$500,000 during the study period, representing \$198,566 or 0.16 percent of the contract dollars.

*Minority Business Enterprises* received 468 or 5.52 percent of the non-professional services contracts under \$500,000 during the study period, representing \$11,705,917 or 9.24 percent of the contract dollars.

*Women Business Enterprises* received 539 or 6.36 percent of the non-professional services contracts under \$500,000 during the study period, representing \$8,302,292 or 6.55 percent of the contract dollars.

*Minority and Women Business Enterprises* received 1,007 or 11.87 percent of the non-professional services contracts under \$500,000 during the study period, representing \$20,008,209 or 15.79 percent of the contract dollars.

*Non-Minority and Non-Women Business Enterprises* received 7,474 or 88.13 percent of the non-professional services contracts under \$500,000 during the study period, representing \$106,676,233 or 84.21 percent of the contract dollars.



**Table 2.15 Non-Professional Services Prime Contractor  
Utilization: Contracts under \$500,000, October 1, 2002 to  
September 30, 2007**

<b>Ethnicity<sup>^</sup></b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
African Americans	139	1.64%	\$5,589,029	4.41%
Asian Americans	62	0.73%	\$1,545,798	1.22%
Hispanic Americans	253	2.98%	\$4,372,524	3.45%
Native Americans	14	0.17%	\$198,566	0.16%
Caucasian Females	539	6.36%	\$8,302,292	6.55%
Non-Minority Males	7,474	88.13%	\$106,676,233	84.21%
<b>TOTAL</b>	<b>8,481</b>	<b>100.00%</b>	<b>\$126,684,442</b>	<b>100.00%</b>
<b>Ethnicity and Gender</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
African American Females	47	0.55%	\$2,119,189	1.67%
African American Males	92	1.08%	\$3,469,840	2.74%
Asian American Females	14	0.17%	\$40,222	0.03%
Asian American Males	48	0.57%	\$1,505,575	1.19%
Hispanic American Females	30	0.35%	\$1,047,957	0.83%
Hispanic American Males	223	2.63%	\$3,324,567	2.62%
Native American Females	5	0.06%	\$152,049	0.12%
Native American Males	9	0.11%	\$46,517	0.04%
Caucasian Females	539	6.36%	\$8,302,292	6.55%
Non-Minority Males	7,474	88.13%	\$106,676,233	84.21%
<b>TOTAL</b>	<b>8,481</b>	<b>100.00%</b>	<b>\$126,684,442</b>	<b>100.00%</b>
<b>Minority and Gender</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
Minority Females	96	1.13%	\$3,359,417	2.65%
Minority Males	372	4.39%	\$8,346,500	6.59%
Caucasian Females	539	6.36%	\$8,302,292	6.55%
Non-Minority Males	7,474	88.13%	\$106,676,233	84.21%
<b>TOTAL</b>	<b>8,481</b>	<b>100.00%</b>	<b>\$126,684,442</b>	<b>100.00%</b>
<b>Minority and Women</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
Minority Business Enterprises	468	5.52%	\$11,705,917	9.24%
Women Business Enterprises	539	6.36%	\$8,302,292	6.55%
<b>Minority and Women Business Enterprises</b>	<b>1,007</b>	<b>11.87%</b>	<b>\$20,008,209</b>	<b>15.79%</b>
Non-Minority and Non-Women Business Enterprises	7,474	88.13%	\$106,676,233	84.21%
<b>TOTAL</b>	<b>8,481</b>	<b>100.00%</b>	<b>\$126,684,442</b>	<b>100.00%</b>

<sup>^</sup> See Chapter 2: Prime Contractor Utilization Analysis, Table 2.01 for a definition of each ethnic and gender group



## 5. Goods Prime Contractor Utilization: Contracts under \$500,000

Table 2.16 summarizes all contract dollars expended by the City on goods prime contracts under \$500,000. Minority Business Enterprises received 4.4 percent of the goods prime contract dollars; Women Business Enterprises received 5.16 percent; and Non-Minority and Non-Women Business Enterprises received 90.44 percent.

*African Americans* received 61 or 0.88 percent of the goods contracts under \$500,000 during the study period, representing \$145,259 or 0.12 percent of the contract dollars.

*Asian Americans* received 55 or 0.79 percent of the goods contracts under \$500,000 during the study period, representing \$3,333,500 or 2.68 percent of the contract dollars.

*Hispanic Americans* received 97 or 1.4 percent of the goods contracts under \$500,000 during the study period, representing \$1,781,418 or 1.43 percent of the contract dollars.

*Native Americans* received 26 or 0.37 percent of the goods contracts under \$500,000 during the study period, representing \$207,548 or 0.17 percent of the contract dollars.

*Minority Business Enterprises* received 239 or 3.44 percent of the goods contracts under \$500,000 during the study period, representing \$5,467,725 or 4.4 percent of the contract dollars.

*Women Business Enterprises* received 466 or 6.72 percent of the goods contracts under \$500,000 during the study period, representing \$6,411,838 or 5.16 percent of the contract dollars.

*Minority and Women Business Enterprises* received 705 or 10.16 percent of the goods contracts under \$500,000 during the study period, representing \$11,879,563 or 9.56 percent of the contract dollars.

*Non-Minority and Non-Women Business Enterprises* received 6,223 or 89.84 percent of the goods contracts under \$500,000 during the study period, representing \$112,422,231 or 90.44 percent of the contract dollars.



**Table 2.16 Goods Prime Contractor Utilization: Contracts under \$500,000, October 1, 2002 to September 30, 2007**

<b>Ethnicity<sup>^</sup></b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
African Americans	61	0.88%	\$145,259	0.12%
Asian Americans	55	0.79%	\$3,333,500	2.68%
Hispanic Americans	97	1.40%	\$1,781,418	1.43%
Native Americans	26	0.37%	\$207,548	0.17%
Caucasian Females	466	6.72%	\$6,411,838	5.16%
Non-Minority Males	6,233	89.84%	\$112,422,231	90.44%
<b>TOTAL</b>	<b>6,938</b>	<b>100.00%</b>	<b>\$124,301,794</b>	<b>100.00%</b>
<b>Ethnicity and Gender</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
African American Females	6	0.09%	\$16,340	0.01%
African American Males	55	0.79%	\$128,920	0.10%
Asian American Females	18	0.26%	\$556,367	0.45%
Asian American Males	37	0.53%	\$2,777,133	2.23%
Hispanic American Females	20	0.29%	\$521,739	0.42%
Hispanic American Males	77	1.11%	\$1,259,679	1.01%
Native American Females	14	0.20%	\$62,744	0.05%
Native American Males	12	0.17%	\$144,803	0.12%
Caucasian Females	466	6.72%	\$6,411,838	5.16%
Non-Minority Males	6,233	89.84%	\$112,422,231	90.44%
<b>TOTAL</b>	<b>6,938</b>	<b>100.00%</b>	<b>\$124,301,794</b>	<b>100.00%</b>
<b>Minority and Gender</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
Minority Females	58	0.84%	\$1,157,190	0.93%
Minority Males	181	2.61%	\$4,310,535	3.47%
Caucasian Females	466	6.72%	\$6,411,838	5.16%
Non-Minority Males	6,233	89.84%	\$112,422,231	90.44%
<b>TOTAL</b>	<b>6,938</b>	<b>100.00%</b>	<b>\$124,301,794</b>	<b>100.00%</b>
<b>Minority and Women</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
Minority Business Enterprises	239	3.44%	\$5,467,725	4.40%
Women Business Enterprises	466	6.72%	\$6,411,838	5.16%
<b>Minority and Women Business Enterprises</b>	<b>705</b>	<b>10.16%</b>	<b>\$11,879,563</b>	<b>9.56%</b>
Non-Minority and Non-Women Business Enterprises	6,233	89.84%	\$112,422,231	90.44%
<b>TOTAL</b>	<b>6,938</b>	<b>100.00%</b>	<b>\$124,301,794</b>	<b>100.00%</b>

<sup>^</sup> See Chapter 2: Prime Contractor Utilization Analysis, Table 2.01 for a definition of each ethnic and gender group



## ***E. Informal Contracts \$25,000 and under, by Industry***

### **1. Construction Prime Contractor Utilization: Contracts \$25,000 and under**

Table 2.17 summarizes all contract dollars expended by the City on construction prime contracts \$25,000 and under. Minority Business Enterprises received 16.45 percent of the construction prime contract dollars; Women Business Enterprises received 16.58 percent; and Non-Minority and Non-Women Business Enterprises received 66.97 percent.

*African Americans* received 12 or 2.71 percent of the construction contracts \$25,000 and under during the study period, representing \$105,852 or 3.84 percent of the contract dollars.

*Asian Americans* received 24 or 5.43 percent of the construction contracts \$25,000 and under during the study period, representing \$76,889 or 2.79 percent of the contract dollars.

*Hispanic Americans* received 38 or 8.6 percent of the construction contracts \$25,000 and under during the study period, representing \$253,715 or 9.21 percent of the contract dollars.

*Native Americans* received 2 or 0.45 percent of the construction contracts \$25,000 and under during the study period, representing \$16,791 or 0.61 percent of the contract dollars.

*Minority Business Enterprises* received 76 or 17.19 percent of the construction contracts \$25,000 and under during the study period, representing \$453,247 or 16.45 percent of the contract dollars.

*Women Business Enterprises* received 55 or 12.44 percent of the construction contracts \$25,000 and under during the study period, representing \$456,828 or 16.58 percent of the contract dollars.

*Minority and Women Business Enterprises* received 131 or 29.64 percent of the construction contracts \$25,000 and under during the study period, representing \$910,075 or 33.03 percent of the contract dollars.

*Non-Minority and Non-Women Business Enterprises* received 311 or 70.36 percent of the construction contracts \$25,000 and under during the study period, representing \$1,845,319 or 66.97 percent of the contract dollars.



**Table 2.17 Construction Prime Contractor Utilization:  
Contracts \$25,000 and under, October 1, 2002 to September  
30, 2007**

<b>Ethnicity<sup>^</sup></b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
African Americans	12	2.71%	\$105,852	3.84%
Asian Americans	24	5.43%	\$76,889	2.79%
Hispanic Americans	38	8.60%	\$253,715	9.21%
Native Americans	2	0.45%	\$16,791	0.61%
Caucasian Females	55	12.44%	\$456,828	16.58%
Non-Minority Males	311	70.36%	\$1,845,319	66.97%
<b>TOTAL</b>	<b>442</b>	<b>100.00%</b>	<b>\$2,755,394</b>	<b>100.00%</b>
<b>Ethnicity and Gender</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
African American Females	2	0.45%	\$24,930	0.90%
African American Males	10	2.26%	\$80,922	2.94%
Asian American Females	0	0.00%	\$0	0.00%
Asian American Males	24	5.43%	\$76,889	2.79%
Hispanic American Females	2	0.45%	\$35,000	1.27%
Hispanic American Males	36	8.14%	\$218,715	7.94%
Native American Females	2	0.45%	\$16,791	0.61%
Native American Males	0	0.00%	\$0	0.00%
Caucasian Females	55	12.44%	\$456,828	16.58%
Non-Minority Males	311	70.36%	\$1,845,319	66.97%
<b>TOTAL</b>	<b>442</b>	<b>100.00%</b>	<b>\$2,755,394</b>	<b>100.00%</b>
<b>Minority and Gender</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
Minority Females	6	1.36%	\$76,721	2.78%
Minority Males	70	15.84%	\$376,526	13.67%
Caucasian Females	55	12.44%	\$456,828	16.58%
Non-Minority Males	311	70.36%	\$1,845,319	66.97%
<b>TOTAL</b>	<b>442</b>	<b>100.00%</b>	<b>\$2,755,394</b>	<b>100.00%</b>
<b>Minority and Women</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
Minority Business Enterprises	76	17.19%	\$453,247	16.45%
Women Business Enterprises	55	12.44%	\$456,828	16.58%
<b>Minority and Women Business Enterprises</b>	<b>131</b>	<b>29.64%</b>	<b>\$910,075</b>	<b>33.03%</b>
Non-Minority and Non-Women Business Enterprises	311	70.36%	\$1,845,319	66.97%
<b>TOTAL</b>	<b>442</b>	<b>100.00%</b>	<b>\$2,755,394</b>	<b>100.00%</b>

<sup>^</sup> See Chapter 2: Prime Contractor Utilization Analysis, Table 2.01 for a definition of each ethnic and gender group



## **2. Architecture and Engineering Prime Contractor Utilization: Contracts \$25,000 and under**

Table 2.18 summarizes all contract dollars expended by the City on architecture and engineering prime contracts \$25,000 and under. Minority Business Enterprises received 12.56 percent of the architecture and engineering prime contract dollars; Women Business Enterprises received 6.77 percent; and Non-Minority and Non-Women Business Enterprises received 80.67 percent.

*African Americans* received 12 or 3.39 percent of the architecture and engineering contracts \$25,000 and under during the study period, representing \$51,321 or 1.7 percent of the contract dollars.

*Asian Americans* received 24 or 6.78 percent of the architecture and engineering contracts \$25,000 and under during the study period, representing \$159,745 or 5.29 percent of the contract dollars.

*Hispanic Americans* received 13 or 3.67 percent of the architecture and engineering contracts \$25,000 and under during the study period, representing \$168,103 or 5.57 percent of the contract dollars.

*Native Americans* received none of the architecture and engineering contracts \$25,000 and under during the study period.

*Minority Business Enterprises* received 49 or 13.84 percent of the architecture and engineering contracts \$25,000 and under during the study period, representing \$379,169 or 12.56 percent of the contract dollars.

*Women Business Enterprises* received 33 or 9.32 percent of the architecture and engineering contracts \$25,000 and under during the study period, representing \$204,536 or 6.77 percent of the contract dollars.

*Minority and Women Business Enterprises* received 82 or 23.16 percent of the architecture and engineering contracts \$25,000 and under during the study period, representing \$583,705 or 19.33 percent of the contract dollars.

*Non-Minority and Non-Women Business Enterprises* received 272 or 76.84 percent of the architecture and engineering contracts \$25,000 and under during the study period, representing \$2,435,386 or 80.67 percent of the contract dollars.



**Table 2.18 Architecture and Engineering Prime Contractor  
Utilization: Contracts \$25,000 and under, October 1, 2002 to  
September 30, 2007**

<b>Ethnicity<sup>^</sup></b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
African Americans	12	3.39%	\$51,321	1.70%
Asian Americans	24	6.78%	\$159,745	5.29%
Hispanic Americans	13	3.67%	\$168,103	5.57%
Native Americans	0	0.00%	\$0	0.00%
Caucasian Females	33	9.32%	\$204,536	6.77%
Non-Minority Males	272	76.84%	\$2,435,386	80.67%
<b>TOTAL</b>	<b>354</b>	<b>100.00%</b>	<b>\$3,019,091</b>	<b>100.00%</b>
<b>Ethnicity and Gender</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
African American Females	1	0.28%	\$15,361	0.51%
African American Males	11	3.11%	\$35,960	1.19%
Asian American Females	1	0.28%	\$12,000	0.40%
Asian American Males	23	6.50%	\$147,745	4.89%
Hispanic American Females	7	1.98%	\$95,336	3.16%
Hispanic American Males	6	1.69%	\$72,767	2.41%
Native American Females	0	0.00%	\$0	0.00%
Native American Males	0	0.00%	\$0	0.00%
Caucasian Females	33	9.32%	\$204,536	6.77%
Non-Minority Males	272	76.84%	\$2,435,386	80.67%
<b>TOTAL</b>	<b>354</b>	<b>100.00%</b>	<b>\$3,019,091</b>	<b>100.00%</b>
<b>Minority and Gender</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
Minority Females	9	2.54%	\$122,697	4.06%
Minority Males	40	11.30%	\$256,472	8.50%
Caucasian Females	33	9.32%	\$204,536	6.77%
Non-Minority Males	272	76.84%	\$2,435,386	80.67%
<b>TOTAL</b>	<b>354</b>	<b>100.00%</b>	<b>\$3,019,091</b>	<b>100.00%</b>
<b>Minority and Women</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
Minority Business Enterprises	49	13.84%	\$379,169	12.56%
Women Business Enterprises	33	9.32%	\$204,536	6.77%
<b>Minority and Women Business Enterprises</b>	<b>82</b>	<b>23.16%</b>	<b>\$583,705</b>	<b>19.33%</b>
Non-Minority and Non-Women Business Enterprises	272	76.84%	\$2,435,386	80.67%
<b>TOTAL</b>	<b>354</b>	<b>100.00%</b>	<b>\$3,019,091</b>	<b>100.00%</b>

<sup>^</sup> See Chapter 2: Prime Contractor Utilization Analysis, Table 2.01 for a definition of each ethnic and gender group



### 3. Professional Services Prime Contractor Utilization: Contracts \$25,000 and under

Table 2.19 summarizes all contract dollars expended by the City on professional services prime contracts \$25,000 and under. Minority Business Enterprises received 6.35 percent of the professional services prime contract dollars; Women Business Enterprises received 3.28 percent; and Non-Minority and Non-Women Business Enterprises received 90.37 percent.

*African Americans* received 85 or 3.54 percent of the professional services contracts \$25,000 and under during the study period, representing \$415,330 or 3.58 percent of the contract dollars.

*Asian Americans* received 10 or 0.42 percent of the professional services contracts \$25,000 and under during the study period, representing \$81,805 or 0.7 percent of the contract dollars.

*Hispanic Americans* received 28 or 1.17 percent of the professional services contracts \$25,000 and under during the study period, representing \$231,719 or 1.99 percent of the contract dollars.

*Native Americans* received 5 or 0.21 percent of the professional services contracts \$25,000 and under during the study period, representing \$9,145 or 0.08 percent of the contract dollars.

*Minority Business Enterprises* received 128 or 5.33 percent of the professional services contracts \$25,000 and under during the study period, representing \$737,999 or 6.35 percent of the contract dollars.

*Women Business Enterprises* received 116 or 4.83 percent of the professional services contracts \$25,000 and under during the study period, representing \$380,900 or 3.28 percent of the contract dollars.

*Minority and Women Business Enterprises* received 244 or 10.16 percent of the professional services contracts \$25,000 and under during the study period, representing \$1,118,899 or 9.63 percent of the contract dollars.

*Non-Minority and Non-Women Business Enterprises* received 2,158 or 89.84 percent of the professional services contracts \$25,000 and under during the study period, representing \$10,497,640 or 90.37 percent of the contract dollars.



**Table 2.19 Professional Services Prime Contractor Utilization:  
Contracts \$25,000 and under, October 1, 2002 to September  
30, 2007**

<b>Ethnicity<sup>^</sup></b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
African Americans	85	3.54%	\$415,330	3.58%
Asian Americans	10	0.42%	\$81,805	0.70%
Hispanic Americans	28	1.17%	\$231,719	1.99%
Native Americans	5	0.21%	\$9,145	0.08%
Caucasian Females	116	4.83%	\$380,900	3.28%
Non-Minority Males	2,158	89.84%	\$10,497,640	90.37%
<b>TOTAL</b>	<b>2,402</b>	<b>100.00%</b>	<b>\$11,616,539</b>	<b>100.00%</b>
<b>Ethnicity and Gender</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
African American Females	28	1.17%	\$160,340	1.38%
African American Males	57	2.37%	\$254,990	2.20%
Asian American Females	1	0.04%	\$2,720	0.02%
Asian American Males	9	0.37%	\$79,085	0.68%
Hispanic American Females	8	0.33%	\$36,945	0.32%
Hispanic American Males	20	0.83%	\$194,774	1.68%
Native American Females	0	0.00%	\$0	0.00%
Native American Males	5	0.21%	\$9,145	0.08%
Caucasian Females	116	4.83%	\$380,900	3.28%
Non-Minority Males	2,158	89.84%	\$10,497,640	90.37%
<b>TOTAL</b>	<b>2,402</b>	<b>100.00%</b>	<b>\$11,616,539</b>	<b>100.00%</b>
<b>Minority and Gender</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
Minority Females	37	1.54%	\$200,005	1.72%
Minority Males	91	3.79%	\$537,994	4.63%
Caucasian Females	116	4.83%	\$380,900	3.28%
Non-Minority Males	2,158	89.84%	\$10,497,640	90.37%
<b>TOTAL</b>	<b>2,402</b>	<b>100.00%</b>	<b>\$11,616,539</b>	<b>100.00%</b>
<b>Minority and Women</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
Minority Business Enterprises	128	5.33%	\$737,999	6.35%
Women Business Enterprises	116	4.83%	\$380,900	3.28%
<b>Minority and Women Business Enterprises</b>	<b>244</b>	<b>10.16%</b>	<b>\$1,118,899</b>	<b>9.63%</b>
Non-Minority and Non-Women Business Enterprises	2,158	89.84%	\$10,497,640	90.37%
<b>TOTAL</b>	<b>2,402</b>	<b>100.00%</b>	<b>\$11,616,539</b>	<b>100.00%</b>

<sup>^</sup> See Chapter 2: Prime Contractor Utilization Analysis, Table 2.01 for a definition of each ethnic and gender group



#### **4. Non-Professional Services Prime Contractor Utilization: Contracts \$25,000 and under**

Table 2.20 summarizes all contract dollars expended by the City on non-professional services prime contracts \$25,000 and under. Minority Business Enterprises received 8.17 percent of the non-professional services prime contract dollars; Women Business Enterprises received 6.52 percent; and Non-Minority and Non-Women Business Enterprises received 85.31 percent.

*African Americans* received 94 or 1.26 percent of the non-professional services contracts \$25,000 and under during the study period, representing \$550,563 or 2.02 percent of the contract dollars.

*Asian Americans* received 52 or 0.7 percent of the non-professional services contracts \$25,000 and under during the study period, representing \$378,170 or 1.39 percent of the contract dollars.

*Hispanic Americans* received 220 or 2.94 percent of the non-professional services contracts \$25,000 and under during the study period, representing \$1,245,028 or 4.57 percent of the contract dollars.

*Native Americans* received 11 or 0.15 percent of the non-professional services contracts \$25,000 and under during the study period, representing \$52,342 or 0.19 percent of the contract dollars.

*Minority Business Enterprises* received 377 or 5.05 percent of the non-professional services contracts \$25,000 and under during the study period, representing \$2,226,103 or 8.17 percent of the contract dollars.

*Women Business Enterprises* received 476 or 6.37 percent of the non-professional services contracts \$25,000 and under during the study period, representing \$1,776,221 or 6.52 percent of the contract dollars.

*Minority and Women Business Enterprises* received 853 or 11.42 percent of the non-professional services contracts \$25,000 and under during the study period, representing \$4,002,325 or 14.69 percent of the contract dollars.

*Non-Minority and Non-Women Business Enterprises* received 6,618 or 88.58 percent of the non-professional services contracts \$25,000 and under during the study period, representing \$23,237,692 or 85.31 percent of the contract dollars.



**Table 2.20 Non-Professional Services Prime Contractor  
Utilization: Contracts \$25,000 and under, October 1, 2002 to  
September 30, 2007**

<b>Ethnicity<sup>^</sup></b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
African Americans	94	1.26%	\$550,563	2.02%
Asian Americans	52	0.70%	\$378,170	1.39%
Hispanic Americans	220	2.94%	\$1,245,028	4.57%
Native Americans	11	0.15%	\$52,342	0.19%
Caucasian Females	476	6.37%	\$1,776,221	6.52%
Non-Minority Males	6,618	88.58%	\$23,237,692	85.31%
<b>TOTAL</b>	<b>7,471</b>	<b>100.00%</b>	<b>\$27,240,017</b>	<b>100.00%</b>
<b>Ethnicity and Gender</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
African American Females	33	0.44%	\$106,488	0.39%
African American Males	61	0.82%	\$444,075	1.63%
Asian American Females	14	0.19%	\$40,222	0.15%
Asian American Males	38	0.51%	\$337,948	1.24%
Hispanic American Females	23	0.31%	\$64,824	0.24%
Hispanic American Males	197	2.64%	\$1,180,204	4.33%
Native American Females	2	0.03%	\$5,825	0.02%
Native American Males	9	0.12%	\$46,517	0.17%
Caucasian Females	476	6.37%	\$1,776,221	6.52%
Non-Minority Males	6,618	88.58%	\$23,237,692	85.31%
<b>TOTAL</b>	<b>7,471</b>	<b>100.00%</b>	<b>\$27,240,017</b>	<b>100.00%</b>
<b>Minority and Gender</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
Minority Females	72	0.96%	\$217,359	0.80%
Minority Males	305	4.08%	\$2,008,745	7.37%
Caucasian Females	476	6.37%	\$1,776,221	6.52%
Non-Minority Males	6,618	88.58%	\$23,237,692	85.31%
<b>TOTAL</b>	<b>7,471</b>	<b>100.00%</b>	<b>\$27,240,017</b>	<b>100.00%</b>
<b>Minority and Women</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
Minority Business Enterprises	377	5.05%	\$2,226,103	8.17%
Women Business Enterprises	476	6.37%	\$1,776,221	6.52%
<b>Minority and Women Business Enterprises</b>	<b>853</b>	<b>11.42%</b>	<b>\$4,002,325</b>	<b>14.69%</b>
Non-Minority and Non-Women Business Enterprises	6,618	88.58%	\$23,237,692	85.31%
<b>TOTAL</b>	<b>7,471</b>	<b>100.00%</b>	<b>\$27,240,017</b>	<b>100.00%</b>

<sup>^</sup> See Chapter 2: Prime Contractor Utilization Analysis, Table 2.01 for a definition of each ethnic and gender group



## 5. Goods Prime Contractor Utilization: Contracts \$25,000 and under

Table 2.21 summarizes all contract dollars expended by the City on goods prime contracts \$25,000 and under. Minority Business Enterprises received 2.78 percent of the goods prime contract dollars; Women Business Enterprises received 8.43 percent; and Non-Minority and Non-Women Business Enterprises received 88.79 percent.

*African Americans* received 61 or 1.02 percent of the goods contracts \$25,000 and under during the study period, representing \$145,259 or 0.54 percent of the contract dollars.

*Asian Americans* received 33 or 0.55 percent of the good other services contracts \$25,000 and under during the study period, representing \$246,895 or 0.92 percent of the contract dollars.

*Hispanic Americans* received 86 or 1.44 percent of the goods contracts \$25,000 and under during the study period, representing \$255,832 or 0.95 percent of the contract dollars.

*Native Americans* received 23 or 0.38 percent of the goods contracts \$25,000 and under during the study period, representing \$97,911 or 0.37 percent of the contract dollars.

*Minority Business Enterprises* received 203 or 3.39 percent of the goods contracts \$25,000 and under during the study period, representing \$745,897 or 2.78 percent of the contract dollars.

*Women Business Enterprises* received 417 or 6.96 percent of the goods contracts \$25,000 and under during the study period, representing \$2,258,609 or 8.43 percent of the contract dollars.

*Minority and Women Business Enterprises* received 620 or 10.35 percent of the goods contracts \$25,000 and under during the study period, representing \$3,004,506 or 11.21 percent of the contract dollars.

*Non-Minority and Non-Women Business Enterprises* received 5,372 or 89.65 percent of the goods contracts \$25,000 and under during the study period, representing \$23,800,238 or 88.79 percent of the contract dollars.



**Table 2.21 Goods Prime Contract Utilization: Contracts  
\$25,000 and under, October 1, 2002 to September 30, 2007**

<b>Ethnicity<sup>^</sup></b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
African Americans	61	1.02%	\$145,259	0.54%
Asian Americans	33	0.55%	\$246,895	0.92%
Hispanic Americans	86	1.44%	\$255,832	0.95%
Native Americans	23	0.38%	\$97,911	0.37%
Caucasian Females	417	6.96%	\$2,258,609	8.43%
Non-Minority Males	5,372	89.65%	\$23,800,238	88.79%
<b>TOTAL</b>	<b>5,992</b>	<b>100.00%</b>	<b>\$26,804,744</b>	<b>100.00%</b>
<b>Ethnicity and Gender</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
African American Females	6	0.10%	\$16,340	0.06%
African American Males	55	0.92%	\$128,920	0.48%
Asian American Females	12	0.20%	\$56,706	0.21%
Asian American Males	21	0.35%	\$190,189	0.71%
Hispanic American Females	16	0.27%	\$52,839	0.20%
Hispanic American Males	70	1.17%	\$202,993	0.76%
Native American Females	14	0.23%	\$62,744	0.23%
Native American Males	9	0.15%	\$35,166	0.13%
Caucasian Females	417	6.96%	\$2,258,609	8.43%
Non-Minority Males	5,372	89.65%	\$23,800,238	88.79%
<b>TOTAL</b>	<b>5,992</b>	<b>100.00%</b>	<b>\$26,804,744</b>	<b>100.00%</b>
<b>Minority and Gender</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
Minority Females	48	0.80%	\$188,630	0.70%
Minority Males	155	2.59%	\$557,267	2.08%
Caucasian Females	417	6.96%	\$2,258,609	8.43%
Non-Minority Males	5,372	89.65%	\$23,800,238	88.79%
<b>TOTAL</b>	<b>5,992</b>	<b>100.00%</b>	<b>\$26,804,744</b>	<b>100.00%</b>
<b>Minority and Women</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
Minority Business Enterprises	203	3.39%	\$745,897	2.78%
Women Business Enterprises	417	6.96%	\$2,258,609	8.43%
<b>Minority and Women Business Enterprises</b>	<b>620</b>	<b>10.35%</b>	<b>\$3,004,506</b>	<b>11.21%</b>
Non-Minority and Non-Women Business Enterprises	5,372	89.65%	\$23,800,238	88.79%
<b>TOTAL</b>	<b>5,992</b>	<b>100.00%</b>	<b>\$26,804,744</b>	<b>100.00%</b>

<sup>^</sup> See Chapter 2: Prime Contractor Utilization Analysis, Table 2.01 for a definition of each ethnic and gender group



## **V. SUMMARY**

The City's prime contractor utilization analysis examined \$1,351,310,036 expended on prime contracts awarded between October 1, 2002 to September 30, 2007. The \$1,351,310,036 expended included \$638,173,133 for construction, \$68,349,670 for architecture and engineering, \$68,839,866 for professional services, \$339,530,159 for non-professional services and \$236,417,209 for goods. A total of 20,160 contracts were analyzed, which included 1,111 for construction, 662 for architecture and engineering services, 2,773 for professional services, 8,578 for non-professional services, and 7,036 for goods.

The utilization analysis was performed separately for informal and formal prime contracts. The informal levels included contracts \$25,000 and under for construction, contracts \$25,000 and under for architecture and engineering, contracts \$25,000 and under for professional services, contracts \$25,000 and under for non-professional services, and contracts \$25,000 and under for goods. The analysis of formal contracts was limited to contracts under \$500,000 for each industry. *Chapter 6: Prime Contractor Disparity Analysis* presents the statistical analysis of disparity in each of the five industries.



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# 3

## ***SUBCONTRACTOR UTILIZATION ANALYSIS***

### ***I. INTRODUCTION***

As discussed in *Chapter 2: Prime Contractor Utilization Analysis*, the first step in a disparity study is the analysis of the jurisdiction's expenditures to document the contracting history of minority and woman-owned businesses (M/WBE). The objective of this Chapter is to determine the level of minority and woman-owned business enterprise subcontract utilization by ethnicity and gender compared to non-M/WBE subcontractor utilization. The utilization of subcontractors is documented by ethnicity and gender for subcontracts awarded from October 1, 2002 to September 30, 2007 by the City of Fort Worth's (City's) prime contractors.

### ***II. SUBCONTRACTOR UTILIZATION DATA SOURCES***

Mason Tillman worked closely with the City's staff members to reconstruct subcontractor data for construction, architecture and engineering, and professional services contracts. Subcontracts for non-professional services and goods contracts were not included in the analysis because the prime contractors traditionally do not include significant subcontracting activity.

Several sources of data were used to reconstruct the subcontractor data. The City provided Mason Tillman with subcontractor data extracted from their electronic files as the first source of data. The second source was subcontractor information extracted from a review of the City's project files.



The third source was a prime contractor expenditure survey conducted with the City's prime contractors to request their subcontractors. The prime contractors were asked to provide the name, award, and payment amounts for each subcontractor used on each of their City contracts. Subcontractors identified from the various sources were then surveyed to verify their participation and payment for each prime contract on which they were listed. The City staff encouraged the prime contractors and subcontractors to respond to each survey.

A total of 9,742 subcontracts were identified for 1,084 construction, architecture and engineering, and professional services prime contracts valued at \$50,000 and more. The 9,742 subcontracts were awarded during the five-year study period, October 1, 2002 to September 30, 2007.

The assistance of City staff was an essential resource in the compilation of the subcontract records. The City staff provided invaluable assistance in retrieving critical data from project files. Without City staff cooperation, the collection of 9,742 subcontract records would not have been possible.

### **III. SUBCONTRACTOR UTILIZATION ANALYSIS**

As depicted in Table 3.01 below, the 9,742 subcontracts analyzed included 8,420 construction subcontracts, 872 architecture and engineering subcontracts, and 450 professional services subcontracts. On the subcontracts identified, \$478,777,217 total dollars were expended of which \$427,232,924 were for construction subcontracts, \$37,017,887 for architecture and engineering subcontracts, and \$14,526,406 for professional services subcontracts.



**Table 3.01 Total Subcontract Dollars: All Industries, October 1, 2002 to September 30, 2007**

<b>Industry</b>	<b>Total Number of Subcontracts</b>	<b>Total Dollars Expended</b>
Construction	8,420	\$427,232,924
Architecture and Engineering	872	\$37,017,887
Professional Services	450	\$14,526,406
<b>Total</b>	9,742	\$478,777,217



## **A. Construction Utilization: All Subcontracts**

### **1. Construction Subcontracts**

Table 3.02 depicts construction subcontracts awarded by prime contractors. Minority Business Enterprises received 17.98 percent of the construction subcontract dollars; Women Business Enterprises received 27.6 percent; and Non-Minority and Non-Women Business Enterprises received 54.42 percent. These ethnic and gender groups are defined in Table 2.01 of *Chapter 2: Prime Contractor Utilization Analysis*.

*African American Businesses* received 362 or 4.3 percent of the construction subcontracts during the study period, representing \$16,813,747 or 3.94 percent of the subcontract dollars.

*Asian American Businesses* received 86 or 1.02 percent of the construction subcontracts during the study period, representing \$5,351,650 or 1.25 percent of the subcontract dollars.

*Hispanic American Businesses* received 660 or 7.84 percent of the construction subcontracts during the study period, representing \$40,394,374 or 9.45 percent of the subcontract dollars.

*Native American Businesses* received 58 or 0.69 percent of the construction subcontracts during the study period, representing \$14,273,510 or 3.34 percent of the subcontract dollars.

*Minority Business Enterprises* received 1,166 or 13.85 percent of the construction subcontracts during the study period, representing \$76,833,281 or 17.98 percent of the subcontract dollars.

*Women Business Enterprises* received 1,717 or 20.39 percent of the construction subcontracts during the study period, representing \$117,919,741 or 27.6 percent of the subcontract dollars.

*Minority and Women Business Enterprises* received 2,883 or 34.24 percent of the construction subcontracts during the study period, representing \$194,753,022 or 44.58 percent of the subcontract dollars.

*Non-Minority and Non-Women Business Enterprises* received 5,537 or 65.76 percent of the construction subcontracts during the study period, representing \$232,479,901 or 54.42 percent of the subcontract dollars.



**Table 3.02 Construction Utilization: All Subcontracts,  
October 1, 2002 to September 30, 2007**

<b>Ethnicity<sup>^</sup></b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
African Americans	362	4.30%	\$16,813,747	3.94%
Asian Americans	86	1.02%	\$5,351,650	1.25%
Hispanic Americans	660	7.84%	\$40,394,374	9.45%
Native Americans	58	0.69%	\$14,273,510	3.34%
Caucasian Females	1,717	20.39%	\$117,919,741	27.60%
Non-Minority Males	5,537	65.76%	\$232,479,901	54.42%
<b>TOTAL</b>	<b>8,420</b>	<b>100.00%</b>	<b>\$427,232,924</b>	<b>100.00%</b>
<b>Ethnicity and Gender</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
African American Females	67	0.80%	\$1,793,899	0.42%
African American Males	295	3.50%	\$15,019,848	3.52%
Asian American Females	2	0.02%	\$7,231	0.00%
Asian American Males	84	1.00%	\$5,344,420	1.25%
Hispanic American Females	134	1.59%	\$7,802,831	1.83%
Hispanic American Males	526	6.25%	\$32,591,542	7.63%
Native American Females	23	0.27%	\$1,297,549	0.30%
Native American Males	35	0.42%	\$12,975,962	3.04%
Caucasian Females	1,717	20.39%	\$117,919,741	27.60%
Non-Minority Males	5,537	65.76%	\$232,479,901	54.42%
<b>TOTAL</b>	<b>8,420</b>	<b>100.00%</b>	<b>427,232,924</b>	<b>100.00%</b>
<b>Minority and Gender</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
Minority Females	226	2.68%	\$10,901,510	2.55%
Minority Males	940	11.16%	\$65,931,772	15.43%
Caucasian Females	1,717	20.39%	\$117,919,741	27.60%
Non-Minority Males	5,537	65.76%	\$232,479,901	54.42%
<b>TOTAL</b>	<b>8,420</b>	<b>100.00%</b>	<b>\$427,232,924</b>	<b>100.00%</b>
<b>Minority and Women</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
Minority Business Enterprises	1,166	13.85%	\$76,833,281	17.98%
Women Business Enterprises	1,717	20.39%	\$117,919,741	27.60%
<b>Minority and Women Business Enterprises</b>	<b>2,883</b>	<b>34.24%</b>	<b>\$194,753,022</b>	<b>45.58%</b>
Non-Minority and Non-Women Business Enterprises	5,537	65.76%	\$232,479,901	54.42%
<b>TOTAL</b>	<b>8,420</b>	<b>100.00%</b>	<b>\$427,232,924</b>	<b>100.00%</b>

<sup>^</sup> See Chapter 2: Prime Contractor Utilization Analysis, Table 2.01 for a definition of each ethnic and gender group



## **B. Architecture and Engineering Utilization: All Subcontracts**

Table 3.03 depicts architecture and engineering subcontracts awarded by prime contractors. Minority Business Enterprises received 72.38 percent of the architecture and engineering subcontract dollars; Women Business Enterprises received 19.24 percent; and Non-Minority and Non-Women Business Enterprises received 8.38 percent.

*African American Businesses* received 95 or 10.89 percent of the architecture and engineering subcontracts during the study period, representing \$3,412,234 or 9.22 percent of the subcontracting dollars.

*Asian American Businesses* received 97 or 11.12 percent of the architecture and engineering subcontracts during the study period, representing \$2,761,336 or 7.46 percent of the subcontracting dollars.

*Hispanic American Businesses* received 297 or 34.06 percent of the architecture and engineering subcontracts during the study period, representing \$19,919,744 or 53.81 percent of the subcontracting dollars.

*Native American Businesses* received 17 or 1.95 percent of the architecture and engineering subcontracts during the study period, representing \$698,897 or 1.89 percent of the subcontracting dollars.

*Minority Business Enterprises* received 506 or 58.03 percent of the architecture and engineering subcontracts during the study period, representing \$26,792,211 or 72.38 percent of the subcontract dollars.

*Women Business Enterprises* received 249 or 28.56 percent of the architecture and engineering subcontracts during the study period, representing \$7,122,545 or 19.24 percent of the subcontract dollars.

*Minority and Women Business Enterprises* received 755 or 86.58 percent of the architecture and engineering subcontracts during the study period, representing \$33,914,757 or 91.62 percent of the subcontract dollars.

*Non-Minority and Non-Women Business Enterprises* received 117 or 13.42 percent of the architecture and engineering subcontracts during the study period, representing \$3,103,130 or 8.38 percent of the subcontract dollars.



**Table 3.03 Architecture and Engineering Utilization: All Subcontracts, October 1, 2002 to September 30, 2007**

<b>Ethnicity<sup>^</sup></b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
African Americans	95	10.89%	\$3,412,234	9.22%
Asian Americans	97	11.12%	\$2,761,336	7.46%
Hispanic Americans	297	34.06%	\$19,919,744	53.81%
Native Americans	17	1.95%	\$698,897	1.89%
Caucasian Females	249	28.56%	\$7,122,545	19.24%
Non-Minority Males	117	13.42%	\$3,103,130	8.38%
<b>TOTAL</b>	<b>872</b>	<b>100.00%</b>	<b>\$37,017,887</b>	<b>100.00%</b>
<b>Ethnicity and Gender</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
African American Females	39	4.47%	\$1,140,305	3.08%
African American Males	56	6.42%	\$2,271,929	6.14%
Asian American Females	51	5.85%	\$574,899	1.55%
Asian American Males	46	5.28%	\$2,186,437	5.91%
Hispanic American Females	36	4.13%	\$2,907,418	7.85%
Hispanic American Males	261	29.93%	\$17,012,326	45.96%
Native American Females	3	0.34%	\$78,786	0.21%
Native American Males	14	1.61%	\$620,111	1.68%
Caucasian Females	249	28.56%	\$7,122,545	19.24%
Non-Minority Males	117	13.42%	\$3,103,130	8.38%
<b>TOTAL</b>	<b>872</b>	<b>100.00%</b>	<b>37,017,887</b>	<b>100.00%</b>
<b>Minority and Gender</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
Minority Females	129	14.79%	\$4,701,408	12.70%
Minority Males	377	43.23%	\$22,090,804	59.68%
Caucasian Females	249	28.56%	\$7,122,545	19.24%
Non-Minority Males	117	13.42%	\$3,103,130	8.38%
<b>TOTAL</b>	<b>872</b>	<b>100.00%</b>	<b>\$37,017,887</b>	<b>100.00%</b>
<b>Minority and Women</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
Minority Business Enterprises	506	58.03%	\$26,792,211	72.38%
Women Business Enterprises	249	28.56%	\$7,122,545	19.24%
<b>Minority and Women Business Enterprises</b>	<b>755</b>	<b>86.58%</b>	<b>\$33,914,757</b>	<b>91.62%</b>
Non-Minority and Non-Women Business Enterprises	117	13.42%	\$3,103,130	8.38%
<b>TOTAL</b>	<b>872</b>	<b>100.00%</b>	<b>\$37,017,887</b>	<b>100.00%</b>

<sup>^</sup> See Chapter 2: Prime Contractor Utilization Analysis, Table 2.01 for a definition of each ethnic and gender group



### **C. Professional Services Utilization: All Subcontracts**

Table 3.04 depicts professional services subcontracts awarded by prime contractors. Minority Business Enterprises received 41.45 percent of the professional services subcontract dollars; Women Business Enterprises received 33.57 percent; and Non-Minority and Non-Women Business Enterprises received 24.97 percent.

*African American Businesses* received 50 or 11.11 percent of the professional services subcontracts during the study period, representing \$1,508,253 or 10.38 percent of the subcontracting dollars.

*Asian American Businesses* received 40 or 8.89 percent of the professional services subcontracts during the study period, representing \$1,225,848 or 8.44 percent of the subcontracting dollars.

*Hispanic American Businesses* received 117 or 26 percent of the professional services subcontracts during the study period, representing \$3,106,415 or 21.38 percent of the subcontracting dollars.

*Native American Businesses* 11 or 2.44 percent of the professional services subcontracts during the study period, representing \$181,280 or 1.25 percent of the subcontracting dollars.

*Minority Business Enterprises* received 218 or 48.44 percent of the professional services subcontracts during the study period, representing \$6,021,796 or 41.45 percent of the subcontract dollars.

*Women Business Enterprises* received 150 or 33.33 percent of the professional services subcontracts during the study period, representing \$4,877,209 or 33.57 percent of the subcontract dollars.

*Minority and Women Business Enterprises* received 368 or 81.78 percent of the professional services subcontracts during the study period, representing \$10,899,006 or 75.03 percent of the subcontract dollars.

*Non-Minority and Non-Women Business Enterprises* received 82 or 18.22 percent of the professional services subcontracts during the study period, representing \$3,627,400 or 24.97 percent of the subcontract dollars.



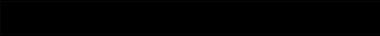
**Table 3.04 Professional Services Utilization: All Subcontracts, October 1, 2002 to September 30, 2007**

<b>Ethnicity<sup>^</sup></b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
African Americans	50	11.11%	\$1,508,253	10.38%
Asian Americans	40	8.89%	\$1,225,848	8.44%
Hispanic Americans	117	26.00%	\$3,106,415	21.38%
Native Americans	11	2.44%	\$181,280	1.25%
Caucasian Females	150	33.33%	\$4,877,209	33.57%
Non-Minority Males	82	18.22%	\$3,627,400	24.97%
<b>TOTAL</b>	<b>450</b>	<b>100.00%</b>	<b>\$14,526,406</b>	<b>100.00%</b>
<b>Ethnicity and Gender</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
African American Females	20	4.44%	\$463,326	3.19%
African American Males	30	6.67%	\$1,044,927	7.19%
Asian American Females	10	2.22%	\$118,733	0.82%
Asian American Males	30	6.67%	\$1,107,115	7.62%
Hispanic American Females	19	4.22%	\$495,937	3.41%
Hispanic American Males	98	21.78%	\$2,610,478	17.97%
Native American Females	1	0.22%	\$15,000	0.10%
Native American Males	10	2.22%	\$166,280	1.14%
Caucasian Females	150	33.33%	\$4,877,209	33.57%
Non-Minority Males	82	18.22%	\$3,627,400	24.97%
<b>TOTAL</b>	<b>450</b>	<b>100.00%</b>	<b>14,526,406</b>	<b>100.00%</b>
<b>Minority and Gender</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
Minority Females	50	11.11%	\$1,092,996	7.52%
Minority Males	168	37.33%	\$4,928,800	33.93%
Caucasian Females	150	33.33%	\$4,877,209	33.57%
Non-Minority Males	82	18.22%	\$3,627,400	24.97%
<b>TOTAL</b>	<b>450</b>	<b>100.00%</b>	<b>\$14,526,406</b>	<b>100.00%</b>
<b>Minority and Women</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
Minority Business Enterprises	218	48.44%	\$6,021,796	41.45%
Women Business Enterprises	150	33.33%	\$4,877,209	33.57%
<b>Minority and Women Business Enterprises</b>	<b>368</b>	<b>81.78%</b>	<b>\$10,899,006</b>	<b>75.03%</b>
Non-Minority and Non-Women Business Enterprises	82	18.22%	\$3,627,400	24.97%
<b>TOTAL</b>	<b>450</b>	<b>100.00%</b>	<b>\$14,526,406</b>	<b>100.00%</b>

<sup>^</sup> See Chapter 2: Prime Contractor Utilization Analysis, Table 2.01 for a definition of each ethnic and gender group



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# 4

## **MARKET AREA ANALYSIS**

### **I. MARKET AREA DEFINITION**

#### **A. Legal Criteria for Geographic Market Area**

The Supreme Court's decision in *City of Richmond v. J.A. Croson Co.*<sup>1</sup> held that programs established by local governments to set goals for the participation of minority and woman-owned firms, must be supported by evidence of past discrimination in the awarding of their contracts.

Prior to the *Croson* decision, many agencies and jurisdictions implementing race-conscious programs did so without developing a detailed public record to document discrimination in their awarding of contracts. Instead, they relied upon common knowledge and what was viewed as widely-recognized patterns of discrimination, both local and national.<sup>2</sup>

*Croson* established that a local government could not rely on society-wide discrimination as the basis for a race-based program, but, instead, was required to identify discrimination within its own jurisdiction.<sup>3</sup> In *Croson*, the Court found the City of Richmond's Minority Business Enterprise (MBE) construction program to be unconstitutional because there was insufficient evidence of discrimination in the *local construction market*.

*Croson* was explicit in saying that the *local construction market* was the appropriate geographical framework within which to perform statistical comparisons of business

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<sup>1</sup> *City of Richmond v. J.A. Croson Co.*, 488 U.S. 469 (1989).

<sup>2</sup> *United Steelworkers v. Weber*, 433 U.S. 193, 198, n. 1 (1979).

<sup>3</sup> *Croson*, 488 U.S. at 497 (1989).



availability and business utilization. Therefore, the identification of the local market area is particularly important because that factor establishes the parameters within which to conduct a disparity study.

## **B. Application of the Croson Standard**

While *Croson* emphasized the importance of the local market area, it provided little assistance in defining its parameters.<sup>4</sup> It, however, is informative to review the Court's definition of the City of Richmond's market area. In discussing the scope of the constitutional violation that must be investigated, the Court interchangeably used the terms "relevant market,"<sup>5</sup> "Richmond construction industry,"<sup>6</sup> and "city's construction industry"<sup>7</sup> to define the proper scope of the examination of the existence of discrimination within the City. This interchangeable use of terms lends support to a definition of market area that coincides with the boundaries of a jurisdiction.

In analyzing the cases following *Croson*, a pattern emerges that provides additional guidance. The body of cases examining market area support a definition of market area that is reasonable.<sup>8</sup> In *Cone Corporation v. Hillsborough County*,<sup>9</sup> the Eleventh Circuit Court of Appeals considered a study in support of Florida's Hillsborough County MBE program, which used minority contractors located in the County as the measure of available firms. The program was found to be constitutional under the compelling governmental interest element of the strict scrutiny standard.

Hillsborough County's program was based on statistics indicating that specific discrimination existed in the construction contracts awarded by the County, not in the construction industry in general. Hillsborough County had extracted data from within its own jurisdictional boundaries and assessed the percentage of minority businesses available in Hillsborough County. The court stated that the study was properly conducted within the "local construction industry."<sup>10</sup>

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<sup>4</sup> *Adarand*, which extended *Croson*'s strict scrutiny standard to federal programs, did not change *Croson*'s approach to market area where federal funds are involved.

<sup>5</sup> *Croson*, 488 U.S. at 471 (1989).

<sup>6</sup> *Id.* at 500.

<sup>7</sup> *Id.* at 470.

<sup>8</sup> See e.g., *Concrete Works of Colorado v. City of Denver, Colorado*, 36 F.3d 1513, 1528 (10th Cir. 1994).

<sup>9</sup> *Cone Corporation v. Hillsborough County*, 908 F.2d 908 (11th Cir. 1990).

<sup>10</sup> *Id.* at 915.



Similarly, in *Associated General Contractors v. Coalition for Economic Equity (AGCCII)*,<sup>11</sup> the Ninth Circuit Court of Appeals found the City and County of San Francisco’s MBE program to have the factual predicate necessary to survive strict scrutiny. The San Francisco MBE program was supported by a study that assessed the number of available MBE contractors within the City and County of San Francisco. The court found it appropriate to use the City and County as the relevant market area within which to conduct a disparity study.<sup>12</sup>

In *Coral Construction v. King County*, the Ninth Circuit Court of Appeals held that “a set-aside program is valid only if actual, identifiable discrimination has occurred within the local industry affected by the program.”<sup>13</sup> In support of its MBE program, the State of Washington’s King County offered studies compiled by other jurisdictions, including entities completely within the County or coterminous with the boundaries of the County, as well as a separate jurisdiction completely outside of the County. The plaintiffs contended that *Croson* required King County to compile its own data and cited *Croson* as prohibiting data sharing.

The court found that data sharing could potentially lead to the improper use of societal discrimination data as the factual basis for a local MBE program and that innocent third parties could be unnecessarily burdened if an MBE program were based on outside data. However, the court also found that the data from entities within the County and from coterminous jurisdictions was relevant to discrimination in the County. They also found that the data posed no risk of unfairly burdening innocent third parties.

Concerning data gathered by a neighboring county, the court concluded that this data could not be used to support King County’s MBE program. The court noted, “It is vital that a race-conscious program align itself as closely to the scope of the problem legitimately sought to be rectified by the governmental entity. To prevent overbreadth, the enacting jurisdiction should limit its factual inquiry to the presence of discrimination within its own boundaries.”<sup>14</sup> However, the court did note that the “world of contracting does not conform itself neatly to jurisdictional boundaries.”<sup>15</sup>

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<sup>11</sup> *Associated General Contractors of California v. Coalition for Economic Equity and City and County of San Francisco*, 950 F.2d 1401 (9th Cir. 1991).

<sup>12</sup> *Id.* at 1415.

<sup>13</sup> *Coral Construction Co. v. King County*, 941 F.2d 910 (9th Cir. 1991), *cert. denied*, 112 S.Ct. 875 (1992).

<sup>14</sup> *Id.* at 917.

<sup>15</sup> *Id.*



There are other situations where courts have approved a definition of market area that extends beyond a jurisdiction's geographic boundaries. In *Concrete Works v. City and County of Denver*,<sup>16</sup> the Tenth Circuit Court of Appeals directly addressed the issue of whether extra-jurisdictional evidence of discrimination can be used to determine "local market area" for a disparity study. In *Concrete Works*, the defendant relied on evidence of discrimination in the six-county Denver Metropolitan Statistical Area (MSA) to support its MBE program. Plaintiffs argued that the federal constitution prohibited consideration of evidence beyond jurisdictional boundaries. The Court of Appeals disagreed.

Critical to the court's acceptance of the Denver MSA as the relevant local market, was the finding that more than 80 percent of construction and design contracts awarded by Denver were awarded to contractors within the MSA. Another consideration was that Denver's analysis was based on U.S. Census data, which was available for the Denver MSA but not for the city itself. There was no undue burden placed on nonculpable parties, as Denver had conducted a majority of its construction contracts within the area defined as the local market. Citing *AGCCII*,<sup>17</sup> the court noted, "that any plan that extends race-conscious remedies beyond territorial boundaries must be based on very specific findings that actions that the city has taken in the past have visited racial discrimination on such individuals."<sup>18</sup>

Similarly, New York State conducted a disparity study in which the geographic market consisted of New York State and eight counties in northern New Jersey. The geographic market was defined as the area encompassing the location of businesses which received more than 90 percent of the dollar value of all contracts awarded by the agency.<sup>19</sup>

State and local governments must pay special attention to the geographical scope of their disparity studies. *Croson* determined that the statistical analysis should focus on the number of qualified minority individuals or qualified minority business owners in the government's marketplace.<sup>20</sup> The text of *Croson* itself suggests that the geographical boundaries of the government entity comprise an appropriate market area, and other courts have agreed with this finding. In addition, other cases have approved the use of a percentage of the dollars spent by an agency on contracting.

It follows then that an entity may limit consideration of evidence of discrimination to discrimination occurring within its own jurisdiction. Under certain circumstances, extra-

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<sup>16</sup> *Concrete Works*, 36 F.3d 1513, 1528 (10th Cir. 1994).

<sup>17</sup> *AGCCII*, 950 F.2d 1401 (9th Cir. 1991).

<sup>18</sup> *Concrete Works*, 36 F.3d at 1528 (10th Cir. 1994).

<sup>19</sup> *Opportunity Denied! New York State's Study*, 26 *Urban Lawyer* No. 3, Summer 1994.

<sup>20</sup> *Croson*, 488 U.S. at 501 (1989).



jurisdictional evidence can be used if the percentage of governmental dollars supports such boundaries. Taken collectively, the cases support a definition of market area that is reasonable rather than dictating a specific or unreasonably rigid formula. In other words, since *Croson* and its progeny did not provide a bright line rule for local market area, that determination should be fact-based and case-specific.

## **II. MARKET AREA ANALYSIS**

Although *Croson* and its progeny do not provide a bright line rule for the delineation of the local market area, taken collectively, the case law supports a definition of market area as within the jurisdiction's own boundaries. It is within the market area where an entity may limit consideration of evidence of discrimination. A review of the contracts awarded by the City of Fort Worth (City) shows that most of its 20,160 contract awards and the majority of the contract dollars were awarded to Dallas County and Tarrant County businesses. Additionally, the distribution of contracts and dollars awarded within each of the five industries shows a pattern of contracting with businesses from Dallas and Tarrant counties. A review of the contracts and dollars awarded to businesses in these two counties is depicted below:



## 1. Distribution of All Contracts

The City awarded 20,160 contracts and \$1,351,310,036 during the October 1, 2002 to September 30, 2007 study period. 67.91 percent of these contracts and 80.82 percent, of the dollars were awarded to Dallas County and Tarrant County-based firms. The distribution of the contracts and dollars awarded is depicted in Table 4.01.

**Table 4.01 Distribution of All Contracts Awarded October 1, 2002 to September 30, 2007**

County	Number of Contracts	Percent of Contracts	Total Dollars	Percent of Dollars
Tarrant	8,804	43.67%	\$822,828,604.65	60.89%
Dallas	4,886	24.24%	\$269,266,205.38	19.93%
Johnson	288	1.43%	\$51,399,611.42	3.80%
Harris	410	2.03%	\$30,880,675.26	2.29%
Denton	336	1.67%	\$27,174,445.93	2.01%
Out of State - PA	153	0.76%	\$14,774,838.14	1.09%
Remaining*	5,283	26.21%	\$134,985,655.48	9.99%
<b>Total</b>	<b>20,160</b>	<b>100.00%</b>	<b>\$1,351,310,036.26</b>	<b>100.00%</b>

\*Remaining includes Other Texas Counties, Out of Texas, and Out of U.S.



## 2. Distribution of Construction Contracts

The City awarded 1,111 construction contracts valued at \$638,173,133 during the study period. 80.83 percent of the construction contracts and 86.77 percent of the dollars were awarded to Dallas County and Tarrant County-based firms.

The distribution of the contracts and dollars awarded to firms within and outside of Dallas and Tarrant counties is depicted in Table 4.02.

**Table 4.02 Distribution of Construction Contracts Awarded  
October 1, 2002 to September 30, 2007**

County	Number of Contracts	Percent of Contracts	Total Dollars	Percent of Dollars
Tarrant	666	59.95%	\$500,156,623.74	78.37%
Dallas	232	20.88%	\$53,617,495.00	8.40%
Johnson	102	9.18%	\$48,506,820.69	7.60%
Harris	15	1.35%	\$7,869,457.57	1.23%
Parker	17	1.53%	\$6,010,050.99	0.94%
Denton	11	0.99%	\$5,521,648.26	0.87%
Travis	1	0.09%	\$4,791,169.64	0.75%
Remaining*	67	6.03%	\$11,699,866.78	1.83%
<b>Total</b>	<b>1,111</b>	<b>100.00%</b>	<b>\$638,173,132.67</b>	<b>100.00%</b>

\*Remaining includes Other Texas Counties, Out of Texas, and Out of U.S.



### 3. Distribution of Architecture and Engineering Contracts

The City awarded 662 architecture and engineering contracts valued at \$68,349,670 during the October 1, 2002 to September 30, 2007 study period. 89.73 percent of the architecture and engineering contracts and 93.14 percent of the dollars were awarded to Dallas County and Tarrant County-based firms.

The distribution of the contracts and dollars awarded to firms within and outside of Dallas and Tarrant counties is depicted in Table 4.03.

**Table 4.03 Distribution of Architecture and Engineering Contracts Awarded October 1, 2002 to September 30, 2007**

County	Number of Contracts	Percent of Contracts	Total Dollars	Percent of Dollars
Dallas	266	40.18%	\$35,155,759.11	51.44%
Tarrant	328	49.55%	\$28,498,729.33	41.70%
Harris	37	5.59%	\$3,559,790.98	5.21%
Out of State - GA	1	0.15%	\$851,853.93	1.25%
Out of State - CO	9	1.36%	\$97,944.00	0.14%
Out of State - UT	4	0.60%	\$96,841.43	0.14%
Remaining*	17	2.57%	\$88,751.22	0.13%
<b>Total</b>	<b>662</b>	<b>100.00%</b>	<b>\$68,349,670.00</b>	<b>100.00%</b>

\*Remaining includes Other Texas Counties, Out of Texas, and Out of U.S.



#### 4. Distribution of Professional Services Contracts

The City awarded 2,773 professional services contracts valued at \$68,839,866 during the October 1, 2002 to September 30, 2007 study period. 64.16 percent of the professional services contracts and 69.77 percent of the dollars were awarded to Dallas County and Tarrant County-based firms.

The distribution of the contracts awarded to firms within and outside of Dallas and Tarrant counties is depicted in Table 4.04.

**Table 4.04 Distribution of Professional Services Contracts  
Awarded October 1, 2002 to September 30, 2007**

County	Number of Contracts	Percent of Contracts	Total Dollars	Percent of Dollars
Dallas	633	22.83%	\$26,317,011.80	38.23%
Tarrant	1,146	41.33%	\$21,714,715.50	31.54%
Out of State - CA	52	1.88%	\$4,717,519.56	6.85%
Denton	88	3.17%	\$2,424,853.35	3.52%
Travis	99	3.57%	\$1,569,137.05	2.28%
Out of State - UT	7	0.25%	\$1,283,693.00	1.86%
Out of State - FL	68	2.45%	\$1,273,861.78	1.85%
Remaining*	680	24.52%	\$9,539,073.56	13.86%
<b>Total</b>	<b>2,773</b>	<b>100.00%</b>	<b>\$68,839,865.60</b>	<b>100.00%</b>

\*Remaining includes Other Texas Counties, Out of Texas, and Out of U.S.



## 5. Distribution of Non-Professional Services Contracts

The City awarded 8,578 non-professional services contracts valued at \$339,530,159 dollars during the October 1, 2002 to September 30, 2007 study period. 73.68 percent of the non-professional services contracts and 84.32 percent of the dollars were awarded to Dallas County and Tarrant County-based firms.

The distribution of the contracts awarded to firms within and outside of Dallas and Tarrant counties is depicted in Table 4.05.

**Table 4.05 Distribution of Non-Professional Services Contracts Awarded October 1, 2002 to September 30, 2007**

County	Number of Contracts	Percent of Contracts	Total Dollars	Percent of Dollars
Tarrant	4,415	51.47%	\$215,259,209.04	63.40%
Dallas	1,905	22.21%	\$71,036,727.84	20.92%
Out of State - PA	26	0.30%	\$8,981,813.86	2.65%
Out of State - IL	173	2.02%	\$7,664,467.93	2.26%
Out of State - CA	172	2.01%	\$6,059,466.74	1.78%
Harris	87	1.01%	\$5,760,726.05	1.70%
Denton	136	1.59%	\$2,798,143.92	0.82%
Collin	589	6.87%	\$2,418,680.71	0.71%
Out of State - IN	32	0.37%	\$2,165,849.60	0.64%
Remaining*	1,043	12.16%	\$17,385,073.63	5.12%
<b>Total</b>	<b>8,578</b>	<b>100.00%</b>	<b>\$339,530,159.32</b>	<b>100.00%</b>

\*Remaining includes Other Texas Counties, Out of Texas, and Out of U.S.



## 6. Distribution of Goods Contracts

The City awarded 7,036 goods contracts valued at \$236,417,209 dollars during the October 1, 2002 to September 30, 2007 study period. 58.25 percent of the goods contracts and 59.36 percent of the dollars were awarded to Dallas County and Tarrant County-based firms.

The distribution of the contracts awarded to firms within and outside of Dallas and Tarrant counties is depicted in Table 4.06.

**Table 4.06 Distribution of Goods Contracts Awarded October 1, 2002 to September 30, 2007**

County	Number of Contracts	Percent of Contracts	Total Dollars	Percent of Dollars
Dallas	1,850	26.29%	\$83,139,211.63	35.17%
Tarrant	2,249	31.96%	\$57,199,327.04	24.19%
Denton	100	1.42%	\$16,428,425.40	6.95%
Harris	222	3.16%	\$13,345,070.15	5.64%
Jefferson	24	0.34%	\$10,269,384.36	4.34%
Out of State - PA	112	1.59%	\$5,699,328.10	2.41%
Out of State - KY	23	0.33%	\$4,094,317.92	1.73%
Out of State - IL	265	3.77%	\$3,715,352.82	1.57%
Collin	66	0.94%	\$3,575,901.13	1.51%
Travis	114	1.62%	\$3,473,627.53	1.47%
Remaining*	2,011	28.58%	\$35,477,262.59	15.01%
<b>Total</b>	<b>7,036</b>	<b>100.00%</b>	<b>\$236,417,208.67</b>	<b>100.00%</b>

\*Remaining includes Other Texas Counties, Out of Texas, and Out of U.S.

## 7. Market Area Determination

More than 67 percent of the City's contracts and 80 percent of dollars were awarded to businesses located in Dallas and Tarrant counties. Given the geographical distribution of the contracts awarded by the City and the requirements set forth in the applicable case law, the study's market area is determined to be Dallas County and Tarrant County.



### **III. CITY OF FORT WORTH'S MARKET AREA**

The following table depicts the overall number of construction, architecture and engineering, professional services, non-professional services, and goods contracts awarded by the City between October 1, 2002 to September 30, 2007.

The City awarded 20,160 construction, architecture and engineering, professional services, non-professional services, and goods contracts valued at \$1,351,310,036 during the study period of October 1, 2002 to September 30, 2007. A total of 67.91 percent of the contracts and 80.82 percent of the dollars were awarded to businesses in the market area of Dallas County and Tarrant County. The analysis of discrimination has been limited to that occurring within this market area.

Table 4.07 depicts the overall number of construction, architecture and engineering, professional services, non-professional services, and goods contracts and the dollar value of those contracts awarded by the City between October 1, 2002 to September 30, 2007. Of the 20,160 contracts awarded by the City during the study period, 13,690 or 67.91 percent were awarded to market area businesses. The dollar value of contracts awarded to market area businesses was \$1,092,094,810 or 80.82 percent of all contract dollars awarded.

The breakdown of contracts awarded to market area businesses is as follows:

Construction Contracts: 898 or 80.83 percent of these contracts were awarded to market area businesses. The dollar value of those contracts was \$553,774,119 or 86.77 percent of the total construction dollars.

Architecture and Engineering Contracts: 594 or 89.73 percent of these contracts were awarded to market area businesses. The dollar value of those contracts was \$63,654,488 or 93.13 percent of the total architecture and engineering dollars.

Professional Services Contracts: 1,779 or 64.15 percent of these contracts were awarded to market area businesses. The dollar value of those contracts was \$48,031,727 or 69.77 percent of the total professional services dollars.<sup>21</sup>

Non-Professional Services Contracts: 6,320 or 73.68 percent were awarded to market area businesses. The dollar value of those contracts was \$286,295,937 or 84.32 percent of the total non-professional services dollars.



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<sup>21</sup> 21.35 percent of the total professional services dollars were awarded to businesses outside Texas.

Goods Contracts: 4,099 or 58.26 percent were awarded to market area businesses. The dollar value of those contracts was \$140,338,539 or 59.36 percent of the total goods dollars.<sup>22</sup>

**Table 4.07 City of Fort Worth Market Area: October 1, 2002  
to September 30, 2007**

<b>Market Area</b>	<b>Number of Contracts</b>	<b>Percent of Contracts</b>	<b>Amount of Dollars</b>	<b>Percent of Dollars</b>
<b>Combined Types of Work</b>				
Market Area	13,690	67.91%	\$1,092,094,810	80.82%
Outside Market Area	6,470	32.09%	\$259,215,226	19.18%
<b>Total</b>	<b>20,160</b>	<b>100.00%</b>	<b>\$1,351,310,036</b>	<b>100.00%</b>
<b>Construction</b>				
Market Area	898	80.83%	\$553,774,119	86.77%
Outside Market Area	213	19.17%	\$84,399,014	13.23%
<b>Total</b>	<b>1,111</b>	<b>100.00%</b>	<b>\$638,173,133</b>	<b>100.00%</b>
<b>Architecture &amp; Engineering</b>				
Market Area	594	89.73%	\$63,654,488	93.13%
Outside Market Area	68	10.27%	\$4,695,182	6.87%
<b>Total</b>	<b>662</b>	<b>100.00%</b>	<b>\$68,349,670</b>	<b>100.00%</b>
<b>Professional Services</b>				
Market Area	1779	64.15%	\$48,031,727	69.77%
Outside Market Area	994	35.85%	\$20,808,138	30.23%
<b>Total</b>	<b>2,773</b>	<b>100.00%</b>	<b>\$68,839,866</b>	<b>100.00%</b>
<b>Non Professional Services</b>				
Market Area	6320	73.68%	\$286,295,937	84.32%
Outside Market Area	2258	26.32%	\$53,234,222	15.68%
<b>Total</b>	<b>8,578</b>	<b>100.00%</b>	<b>\$339,530,159</b>	<b>100.00%</b>
<b>Goods</b>				
Market Area	4099	58.26%	\$140,338,539	59.36%
Outside Market Area	2937	41.74%	\$96,078,670	40.64%
<b>Total</b>	<b>7,036</b>	<b>100.00%</b>	<b>\$236,417,209</b>	<b>100.00%</b>

<sup>22</sup> 14.95 percent of the total goods dollars were awarded to businesses outside Texas



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# 5

## **AVAILABILITY ANALYSIS**

### **I. INTRODUCTION**

Availability is defined, according to *Croson*, as the number of businesses in the jurisdiction’s market area that are willing and able to provide goods or services.<sup>1</sup> To determine availability, minority and woman-owned business enterprises (M/WBEs) and non-M/WBEs within the jurisdiction’s market area that are willing and able to provide the goods and services need to be enumerated. The analysis presented in *Chapter 4: Market Area Analysis* defined Dallas and Tarrant counties as the market area for this Study. This determination was made because most of the utilized businesses are domiciled in these two counties.

When considering sources for determining the number of willing and able M/WBEs and non-M/WBEs, the selection must be based on whether two significant aspects about the population in question can be gauged from the sources. A business’ interest in doing business with the jurisdiction, as implied by the term “willing” and its ability or capacity to provide a service or good, as implied by the term “able” must be discerned.

The compiled list of available businesses includes minority, women, and Non-Minority and Non-Women-owned businesses in the areas of construction, architecture and engineering, professional services, non-professional services, and goods. City of Fort Worth (City) and the Consortium member (the Consortium)<sup>2</sup> records, government certification records, business association membership listings, and an outreach campaign were used to compile the documents used as sources for available market area businesses. Separate availability lists were compiled for prime contractors and subcontractors within the five industries. The distribution of available businesses by ethnicity and gender and industry are presented in this chapter.

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<sup>1</sup> *City of Richmond v. J.A. Croson Co.*, 488 U.S. 469, 509 (1989).

<sup>2</sup> The Consortium includes the City of Arlington, City of Fort Worth, Fort Worth Independent School District, Fort Worth Transportation Authority, Dallas/Fort Worth International Airport Board, and North Texas Tollway Authority.



## **II. PRIME CONTRACTOR AVAILABILITY DATA SOURCES**

### **A. Identification of Willing Businesses Within The Market Area**

Mason Tillman identified businesses in the two county market area that provided goods and services that the City procures using four sources. The sources included are the Consortium utilized vendors and unsuccessful bidders, government certification lists, business outreach, and business association membership lists. Only businesses that were determined to be willing were added to the availability list. All businesses identified as willing from more than one source were counted only once. The base document in the availability list was the utilized vendors. To this list was added the unsuccessful bidders, businesses identified through government certification lists, and the willing businesses identified from the business association membership lists. The four sources were ranked with the highest rank assigned to the utilized vendors.

The utilized vendors and unsuccessful bidders were secured from the City and the Consortium records. The certified lists were collected from agencies which certify businesses as local small, minority and woman-owned. The list of M/W/DBEs maintained by the North Central Texas Regional Certification Agency (NCTRCA) was also collected.

Extensive outreach to business associations in Dallas and Tarrant counties was performed to identify additional businesses willing to contract with the City and the Consortium. Written and telephone contact with organizations and local governments was used to collect membership lists. From the combined effort 18,764 unique market area businesses were identified.

An account of the willing businesses derived by source is listed below:

#### **1. City and The Consortium Records**

All of the Consortium utilized vendors and unsuccessful bidders were determined to be willing. There were 19,063 utilized and unsuccessful businesses. To the availability list, 9,684 unique utilized and unsuccessful bidders were added.

#### **2. Government Certification Lists**

Certification lists from state and government agencies were collected. There were 12,698 certified businesses compiled from six agencies and all were determined to be willing. From these sources 8,870 unique certified businesses were added to the availability list.



### 3. Identification of Business Association Membership Lists

Mason Tillman identified 27 lists of businesses within the market area. Membership lists were obtained from 22 entities. From the 22 business association membership lists, 5,990 businesses were identified. Of the 5,990 businesses, there were 3,411 unique businesses that offered the goods and services the City and the Consortium procures. The unique list was queried and businesses without a telephone number were excluded. There were 3,287 businesses with telephone numbers. These businesses were surveyed to determine their willingness to contract with the City and the Consortium. There were 210 unique businesses added to the availability list.

#### **B. Prime Contractor Sources**

Table 5.01 lists the government and business association sources from which the willing businesses were compiled.

**Table 5.01 Prime Contractor Availability Data Sources**

Source	Type of Information
<b>City and the Consortium Records</b>	
City of Arlington Utilized Vendors	M/WBEs and non-M/WBEs
Dallas/Fort Worth International Airport Board Utilized Vendors	M/WBEs and non-M/WBEs
City of Fort Worth Utilized Vendors	M/WBEs and non-M/WBEs
Fort Worth Independent School District Utilized Vendors	M/WBEs and non-M/WBEs
Fort Worth Transportation Authority Utilized Vendors	M/W/DBEs and non-M/W/DBEs
North Texas Tollway Authority Utilized Vendors	M/WBEs and non-M/WBEs
City of Arlington Bidders List	M/WBEs and non-M/WBEs
Dallas/Fort Worth International Airport Board Bidders List	M/WBEs and non-M/WBEs
City of Fort Worth Bidders List	M/WBEs and non-M/WBEs
Fort Worth Independent School District Bidders List	M/WBEs and non-M/WBEs
Fort Worth Transportation Authority Bidders List	M/W/DBEs and non-M/W/DBEs
North Texas Tollway Authority Bidders List	M/WBEs and non-M/WBEs
<b>Government Certification Lists</b>	
State of Texas Centralized Master Bidders List (CMBL)	M/WBEs and non-M/WBEs



<b>Source</b>	<b>Type of Information</b>
State of Texas Historically Underutilized Business (HUB) Directory	HUBs
Dallas City Hall M/WBE Directory	M/WBEs
North Central Texas Regional Certification Agency (Dallas and Tarrant Counties)	M/W/DBEs and non-M/W/DBEs
Texas Unified Certification Program Disadvantaged Business Enterprise Information Directory, Dallas and Tarrant Counties	DBEs
United States Small Business Administration: Procurement Marketing and Access Network, Dallas and Tarrant Counties	M/WBEs and non-M/WBEs
<b>Business Association Membership/Licensing Board Lists</b>	
American Institute of Architects	M/WBEs and non-M/WBEs
Apartment Association of Tarrant County	M/WBEs and non-M/WBEs
Associated Builders and Contractors	M/WBEs and non-M/WBEs
Black Contractors Associations, Inc. Directory	M/WBEs and non-M/WBEs
Dallas Black Chamber of Commerce	M/WBEs and non-M/WBEs
Dallas/Fort Worth Minority Business Development Council	M/WBEs and non-M/WBEs
Fort Worth Hispanic Chamber of Commerce	M/WBEs and non-M/WBEs
Greater Dallas Asian American Chamber of Commerce	M/WBEs and non-M/WBEs
Greater Dallas Hispanic Chamber of Commerce	M/WBEs and non-M/WBEs
Fort Worth Hispanic Chamber of Commerce	M/WBEs and non-M/WBEs
Hispanic Contractors Association	M/WBEs and non-M/WBEs
Mechanical Contractors Association of Dallas	M/WBEs and non-M/WBEs
Mechanical Contractors Association of Texas	M/WBEs and non-M/WBEs
National Minority Women Business Enterprise Directory, Dallas and Tarrant Counties	M/WBEs
National Association of Women Business Owners	WBEs
National Electrical Contractors Association - North Texas	M/WBEs and non-M/WBEs
Native American Indian Chamber of Commerce	M/WBEs and non-M/WBEs
Northwest Metroport Chamber of Commerce	M/WBEs and non-M/WBEs
Saginaw Area Chamber of Commerce	M/WBEs and non-M/WBEs



Source	Type of Information
Texas Board of Professional Engineers	M/WBEs and non-M/WBEs
White Settlement Area Businesses List	M/WBEs and non-M/WBEs
White Settlement Area Chamber of Commerce	M/WBEs and non-M/WBEs
Women's Business Council - Southwest	WBEs

### ***C. Determination of Willingness***

All businesses used in the availability analysis were determined to be willing to contract with the City and the Consortium. Willingness is defined in *Croson* and its progeny as a business' interest in doing government contracting. This term is discussed in detail in *Volume 1 Chapter 1: Legal Analysis* of this Report. Businesses identified from the 41 sources listed in Table 5.01 have demonstrated their willingness to perform on public contracts. To be classified as willing the business either had bid on a City or Consortium contract, secured government certification, responded to the outreach campaign conducted in conjunction with this Study, or was listed on a business organization membership list and affirmed its interest in contracting with the City and the Consortium through the survey. It was presumed that companies that sought government contracts or certification were willing to contract with the City and the Consortium.



**D. Distribution of Available Prime Contractors by Source, Ethnicity, and Gender**

Tables 5.02 through 5.07 present the distribution of willing prime contractors by the source. The 36 sources listed in Table 5.01 are ranked. The highest ranked source was the prime contractors utilized by the City and the Consortium. Each ranked business is *counted only once*. For example, a utilized prime contractor counted once in the prime contractor utilization source will not be counted a second time as a bidder, as a certified business, or as a company identified during outreach.

As noted in Table 5.02, 87.79 percent of the businesses on the unique list of available prime contractors were obtained from the City and the Consortium records of utilized contractors, unsuccessful bidders, and government certification lists. Companies identified through business outreach and the business association membership lists represent 12.21 percent of the willing businesses.

**Table 5.02 Distribution of Prime Contractor Availability Data Sources, All Industries**

Sources	M/WBEs Percentage	Non-M/WBEs Percentage	Source Percentage
Utilized Prime Contractors	11.12%	58.11%	32.54%
Bidders Lists	18.39%	6.91%	13.16%
Government Certification Lists	57.91%	2.15%	32.50%
SBA Pro-net	5.99%	13.92%	9.60%
<b>Subtotal</b>	<b>93.41%</b>	<b>81.09%</b>	<b>87.79%</b>
Willingness Survey	6.59%	18.91%	12.21%
<b>Subtotal</b>	<b>6.59%</b>	<b>18.91%</b>	<b>12.21%</b>
<b>Grand Total*</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>

\* The percentages may not total 100 percent due to rounding.



A distribution of available businesses by source also was calculated for each industry. As noted in Table 5.03, 76.2 percent of the construction companies identified were derived from the City and the Consortium records and government certification lists. Companies identified through business outreach and the business association membership lists represent 23.8 percent of the willing businesses.

**Table 5.03 Distribution of Prime Contractor Availability Data Sources, Construction**

Sources	M/WBEs Percentage	Non-M/WBEs Percentage	Source Percentage
Utilized Prime Contractors	11.31%	36.18%	19.65%
Bidders Lists	20.11%	6.12%	15.42%
Government Certification Lists	55.45%	2.49%	37.70%
SBA Pro-net	2.13%	6.04%	3.44%
<b>Subtotal</b>	<b>88.99%</b>	<b>50.83%</b>	<b>76.20%</b>
Willingness Survey	11.01%	49.17%	23.80%
<b>Subtotal</b>	<b>11.01%</b>	<b>49.17%</b>	<b>23.80%</b>
<b>Grand Total*</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>

\* The percentages may not total 100 percent due to rounding.



Table 5.04 depicts the data sources for available architecture and engineering prime contractors. As noted, 71.25 percent of the architecture and engineering companies identified were derived from the City and the Consortium records and government certification lists. Companies identified through business outreach and the business association membership lists represent 28.75 percent of the willing businesses.

**Table 5.04 Distribution of Prime Contractor Availability Data Sources, Architecture and Engineering**

Sources	M/WBEs Percentage	Non-M/WBEs Percentage	Source Percentage
Utilized Prime Contractors	13.03%	26.97%	19.44%
Bidders Lists	26.67%	10.35%	19.17%
Government Certification Lists	48.76%	1.60%	27.08%
SBA Pro-net	2.61%	9.04%	5.56%
<b>Subtotal</b>	<b>91.07%</b>	<b>47.96%</b>	<b>71.25%</b>
Willingness Survey	8.93%	52.04%	28.75%
<b>Subtotal</b>	<b>8.93%</b>	<b>52.04%</b>	<b>28.75%</b>
<b>Grand Total*</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>

\* The percentages may not total 100 percent due to rounding.



Table 5.05 depicts the data sources for available professional services prime contractors. As noted, 75.69 percent of the construction companies identified were derived from the City and the Consortium records and government certification lists. Companies identified through business outreach and the business association membership lists represent 24.31 percent of the willing businesses.

**Table 5.05 Distribution of Prime Contractor Availability Data Sources, Professional Services**

Sources	M/WBEs Percentage	Non-M/WBEs Percentage	Source Percentage
Utilized Prime Contractors	7.96%	27.96%	15.55%
Bidders Lists	20.04%	8.19%	15.55%
Government Certification Lists	52.39%	1.89%	33.24%
SBA Pro-net	6.88%	18.70%	11.36%
<b>Subtotal</b>	<b>87.27%</b>	<b>56.73%</b>	<b>75.69%</b>
Willingness Survey	12.73%	43.27%	24.31%
<b>Subtotal</b>	<b>12.73%</b>	<b>43.27%</b>	<b>24.31%</b>
<b>Grand Total*</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>

\* The percentages may not total 100 percent due to rounding.



Table 5.06 depicts the data sources for available non-professional services prime contractors. As noted, 97.84 percent of the non-professional services companies identified were derived from the City and the Consortium records and government certification lists. Companies identified through business outreach and the business association membership lists represent 2.16 percent of the willing businesses.

**Table 5.06 Distribution of Prime Contractor Availability Data Sources, Non-Professional Services**

Sources	M/WBEs Percentage	Non-M/WBEs Percentage	Source Percentage
Utilized Prime Contractors	18.65%	84.10%	49.02%
Bidders Lists	17.80%	5.17%	11.94%
Government Certification Lists	58.41%	2.15%	32.30%
SBA Pro-net	3.74%	5.54%	4.57%
<b>Subtotal</b>	<b>98.60%</b>	<b>96.95%</b>	<b>97.84%</b>
Willingness Survey	1.40%	3.05%	2.16%
<b>Subtotal</b>	<b>1.40%</b>	<b>3.05%</b>	<b>2.16%</b>
<b>Grand Total*</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>

\* The percentages may not total 100 percent due to rounding.



Table 5.07 depicts the data sources for available goods prime contractors. As noted, 99.08 percent of the goods prime contractors were obtained from the City and the Consortium records and government certification lists. Companies identified through business outreach and the business association membership lists represent less than one percent of the willing businesses.

**Table 5.07 Distribution of Prime Contractor Availability Data Sources, Goods**

Sources	M/WBEs Percentage	Non-M/WBEs Percentage	Source Percentage
Utilized Prime Contractors	16.96%	67.40%	43.84%
Bidders Lists	21.30%	7.84%	14.13%
Government Certification Lists	51.54%	1.63%	24.95%
SBA Pro-net	9.41%	22.09%	16.17%
<b>Subtotal</b>	<b>99.21%</b>	<b>98.96%</b>	<b>99.08%</b>
Willingness Survey	0.79%	1.04%	0.92%
<b>Subtotal</b>	<b>0.79%</b>	<b>1.04%</b>	<b>0.92%</b>
<b>Grand Total*</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>

\* The percentages may not total 100 percent due to rounding.



### **III. CAPACITY**

The second component of the availability requirement set forth in *Croson* is a business's capacity or ability to work on the contracts awarded by the jurisdiction.<sup>3</sup> However, capacity requirements are not delineated in *Croson*. In fact, a standard for capacity has only been addressed in a few subsequent cases. Each case where capacity has been considered has involved large, competitively bid construction prime contracts. Nevertheless, the capacity of willing market area businesses to do business with the City was assessed using four approaches.

- The size of all prime contracts awarded by the City was analyzed to determine the capacity needed to perform the average awarded contract
- The largest contracts awarded to M/WBEs were identified to determine demonstrated ability to win large, competitively bid contracts
- The certification process was assessed to determine if it meets the standard set in *Contractors Ass'n of Eastern Pennsylvania v. City of Philadelphia (Philadelphia)*,<sup>4</sup> which found the USDOT certification to measure capacity.
- The disparity analysis was restricted to an examination of the prime contract awards valued under \$500,000 to limit the capacity required to perform the contracts subjected to the statistical analysis

#### **A. Size of Contracts Analyzed**

In *Associated General Contractors of America v. City of Columbus* and *Engineering Contractors Ass'n of South Florida v. Metropolitan Dade City*, the courts were concerned with the capacity analysis of available businesses to bid on large, competitively bid contracts. It should also be noted that the focus in both cases was on the bidding company's size and ability to perform on large, competitively bid construction contracts.<sup>5</sup>

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<sup>3</sup> *Croson*, 488 U.S. 469.

<sup>4</sup> *Contractors Ass'n of Eastern Pennsylvania v. City of Philadelphia*, 6 F.3d 990 (3d Cir. 1993), on remand, 893 F. Supp. 419 (E.D. Penn. 1995), aff'd, 91 F.3d 586 (3d Cir. 1996).

<sup>5</sup> *Associated General Contractors of America v. City of Columbus*, 936 F. Supp. 1363 (S.D. Ohio Eastern Division, decided August 26, 1996), and *Engineering Contractors Ass'n of South Florida v. Metropolitan Dade City*, 943 F. Supp. 1546 (S.D. Fla. 1996), aff'd 122 F.3d 895 (11th Cir. 1997). Writ of certiorari denied *Metropolitan Dade County v. Engineering Contrs. Ass'n*, 523 U.S. 1004, 140 L. Ed. 2d 317, 118 S. Ct. 1186, (1998); Related proceeding at *Hershell Gill Consulting Eng'Rs, Inc. v. Miami-Dade County*, 2004 U.S. Dist. LEXIS 17197 (S.D. Fla., Aug. 24, 2004). Decision was vacated by the 6<sup>th</sup> Circuit Court of Appeals.



The City's construction, architecture and engineering, professional services, non-professional services, and goods contracts were analyzed to determine the size of awarded contracts and, therefore, the capacity required to perform on the City's contracts. The size distribution illustrates the fact that the majority of the City awarded contracts were under \$25,000. This distribution illustrates that limited capacity is needed to perform the overwhelming majority of the City's contracts.

For this contract size analysis, the City's contracts were grouped into eight dollar ranges<sup>6</sup>. Each award was analyzed to determine the number and percentage of contracts that fell within each of the eight size categories. The size distribution of contracts awarded to Non-Minority Males, was then compared to the size distribution of contracts awarded to Non-Minority Females, Minority Females, and Minority Males.

The analysis in Table 5.08, which combines all industries, demonstrates that 82.59 percent of the City's contracts were less than \$25,000, 91.88 percent were less than \$100,000, and 97.29 percent were less than \$500,000. Only 2.71 percent of the City's contracts were \$500,000 or more.

### **1. Construction Contracts by Size**

Table 5.09 depicts the City's construction contracts awarded within the eight dollar ranges. Contracts valued at less than \$25,000 were 39.69 percent; those less than \$50,000 were 45.36 percent; those less than \$100,000 were 50.59 percent; and those less than \$500,000 were 72.73 percent.

### **2. Architecture and Engineering Contracts by Size**

Table 5.10 depicts architecture and engineering services contracts within the eight dollar ranges. Contracts valued at less than \$25,000 were 53.47 percent; those less than \$50,000 were 63.44 percent; those less than \$100,000 were 77.95 percent; and those less than \$500,000 were 95.77 percent.

### **3. Professional Services Contracts by Size**

Table 5.11 depicts professional services contracts within the eight dollar ranges. Contracts valued at less than \$25,000 were 86.33 percent; those less than \$50,000 were 91.06 percent; those less than \$100,000 were 95.64 percent; and those less than \$500,000 were 99.24 percent.

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<sup>6</sup> The eight dollar ranges are \$1 to \$24,999, \$25,000 to \$49,999, \$50,000 to \$99,999, \$100,000 to \$249,999, \$250,000 to \$499,999, \$500,000 to \$999,999, \$1,000,000 to \$2,999,999, and \$3,000,000 and greater.



#### **4. Non-Professional Services Contracts by Size**

Table 5.12 depicts non-professional services contracts within the eight dollar ranges. Contracts valued at less than \$25,000 were 87.07 percent; those less than \$50,000 were 91.42 percent; those less than \$100,000 were 95.34 percent; and those less than \$500,000 were 98.87 percent.

#### **5. Goods Contracts by Size**

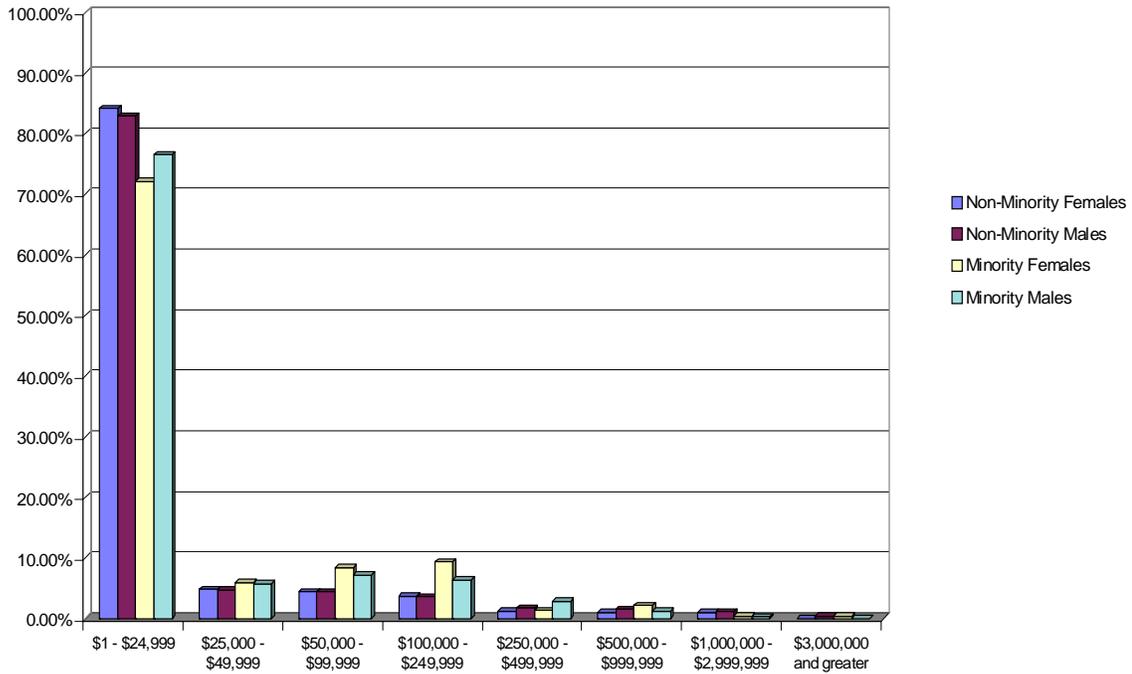
Table 5.13 depicts goods contracts within the eight dollar ranges. Contracts valued at less than \$25,000 were 85.16 percent; those less than \$50,000 were 89.78 percent; those less than \$100,000 were 94 percent; and those less than \$500,000 were 98.61 percent.



**Table 5.08 Contracts by Size: All Industries, October 1, 2002 to September 30, 2007**

Size	Non-Minority				Minority				Total	
	Females		Males		Females		Males			
	Freq	Percent	Freq	Percent	Freq	Percent	Freq	Percent	Freq	Percent
\$1 - \$24,999	1097	84.13%	14,723	82.91%	171	72.15%	659	76.54%	16,650	82.59%
\$25,000 - \$49,999	62	4.75%	833	4.69%	14	5.91%	49	5.69%	958	4.75%
\$50,000 - \$99,999	57	4.37%	775	4.36%	20	8.44%	62	7.20%	914	4.53%
\$100,000 - \$249,999	48	3.68%	625	3.52%	22	9.28%	55	6.39%	750	3.72%
\$250,000 - \$499,999	15	1.15%	299	1.68%	3	1.27%	24	2.79%	341	1.69%
\$500,000 - \$999,999	12	0.92%	262	1.48%	5	2.11%	10	1.16%	289	1.43%
\$1,000,000 - \$2,999,999	13	1.00%	190	1.07%	1	0.42%	2	0.23%	206	1.02%
\$3,000,000 and greater	0	0.00%	51	0.29%	1	0.42%	0	0.00%	52	0.26%
<b>Total</b>	<b>1304</b>	<b>100.00%</b>	<b>17758</b>	<b>100.00%</b>	<b>237</b>	<b>100.00%</b>	<b>861</b>	<b>100.00%</b>	<b>20160</b>	<b>100.00%</b>

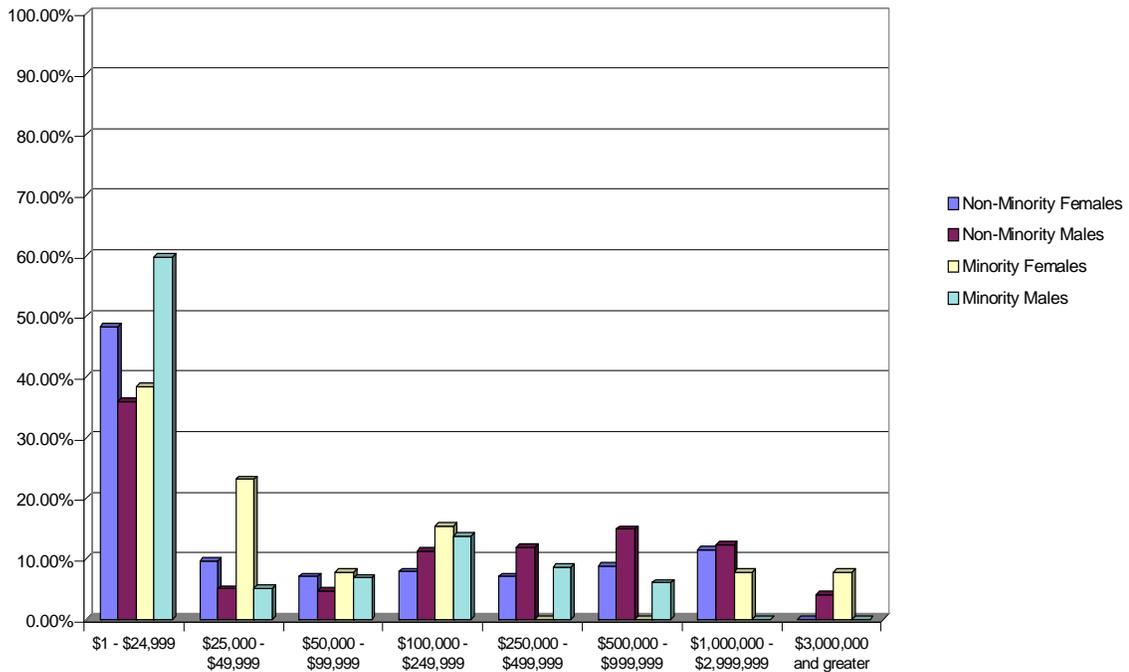
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**Table 5.09 Construction Contracts by Size: October 1, 2002 to September 30, 2007**

Size	Non-Minority				Minority				Total	
	Females		Males		Females		Males		Freq	Percent
	Freq	Percent	Freq	Percent	Freq	Percent	Freq	Percent		
\$1 - \$24,999	55	48.25%	311	35.87%	5	38.46%	70	59.83%	441	39.69%
\$25,000 - \$49,999	11	9.65%	43	4.96%	3	23.08%	6	5.13%	63	5.67%
\$50,000 - \$99,999	8	7.02%	41	4.73%	1	7.69%	8	6.84%	58	5.22%
\$100,000 - \$249,999	9	7.89%	98	11.30%	2	15.38%	16	13.68%	125	11.25%
\$250,000 - \$499,999	8	7.02%	103	11.88%	0	0.00%	10	8.55%	121	10.89%
\$500,000 - \$999,999	10	8.77%	129	14.88%	0	0.00%	7	5.98%	146	13.14%
\$1,000,000 - \$2,999,999	13	11.40%	107	12.34%	1	7.69%	0	0.00%	121	10.89%
\$3,000,000 and greater	0	0.00%	35	4.04%	1	7.69%	0	0.00%	36	3.24%
<b>Total</b>	<b>114</b>	<b>100.00%</b>	<b>867</b>	<b>100.00%</b>	<b>13</b>	<b>100.00%</b>	<b>117</b>	<b>100.00%</b>	<b>1111</b>	<b>100.00%</b>

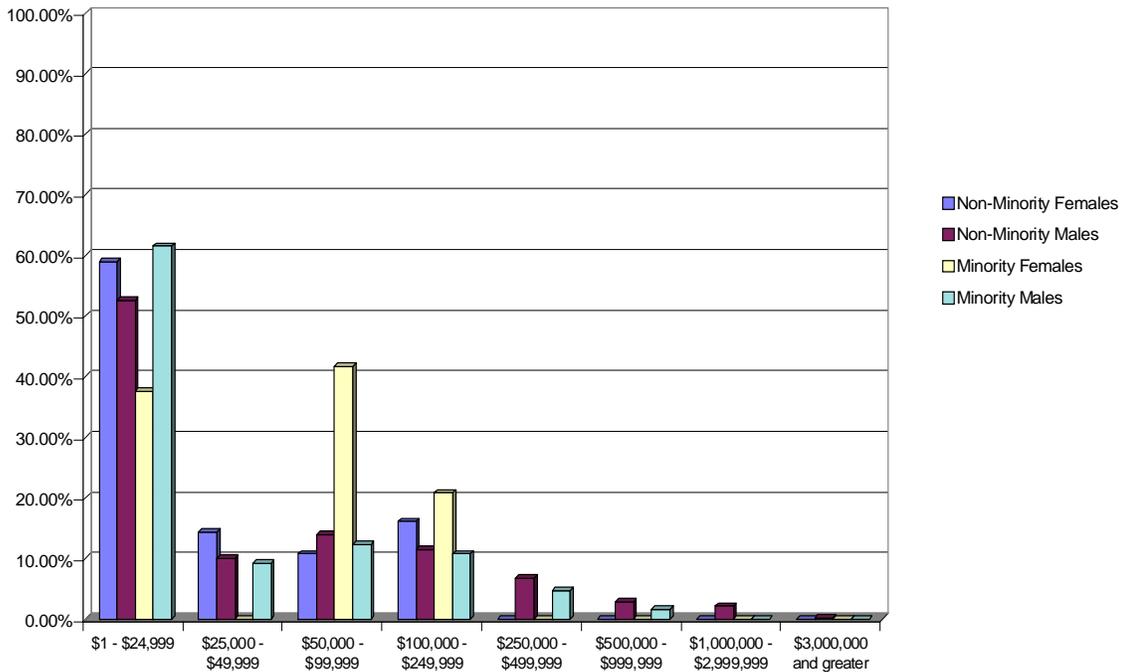
P-Value < 0.001



**Table 5.10 Architecture and Engineering Contracts by Size:  
October 1, 2002 to September 30, 2007**

Size	Non-Minority				Minority				Total	
	Females		Males		Females		Males			
	Freq	Percent	Freq	Percent	Freq	Percent	Freq	Percent	Freq	Percent
\$1 - \$24,999	33	58.93%	272	52.61%	9	37.50%	40	61.54%	354	53.47%
\$25,000 - \$49,999	8	14.29%	52	10.06%	0	0.00%	6	9.23%	66	9.97%
\$50,000 - \$99,999	6	10.71%	72	13.93%	10	41.67%	8	12.31%	96	14.50%
\$100,000 - \$249,999	9	16.07%	59	11.41%	5	20.83%	7	10.77%	80	12.08%
\$250,000 - \$499,999	0	0.00%	35	6.77%	0	0.00%	3	4.62%	38	5.74%
\$500,000 - \$999,999	0	0.00%	15	2.90%	0	0.00%	1	1.54%	16	2.42%
\$1,000,000 - \$2,999,999	0	0.00%	11	2.13%	0	0.00%	0	0.00%	11	1.66%
\$3,000,000 and greater	0	0.00%	1	0.19%	0	0.00%	0	0.00%	1	0.15%
<b>Total</b>	<b>56</b>	<b>100.00%</b>	<b>517</b>	<b>100.00%</b>	<b>24</b>	<b>100.00%</b>	<b>65</b>	<b>100.00%</b>	<b>662</b>	<b>100.00%</b>

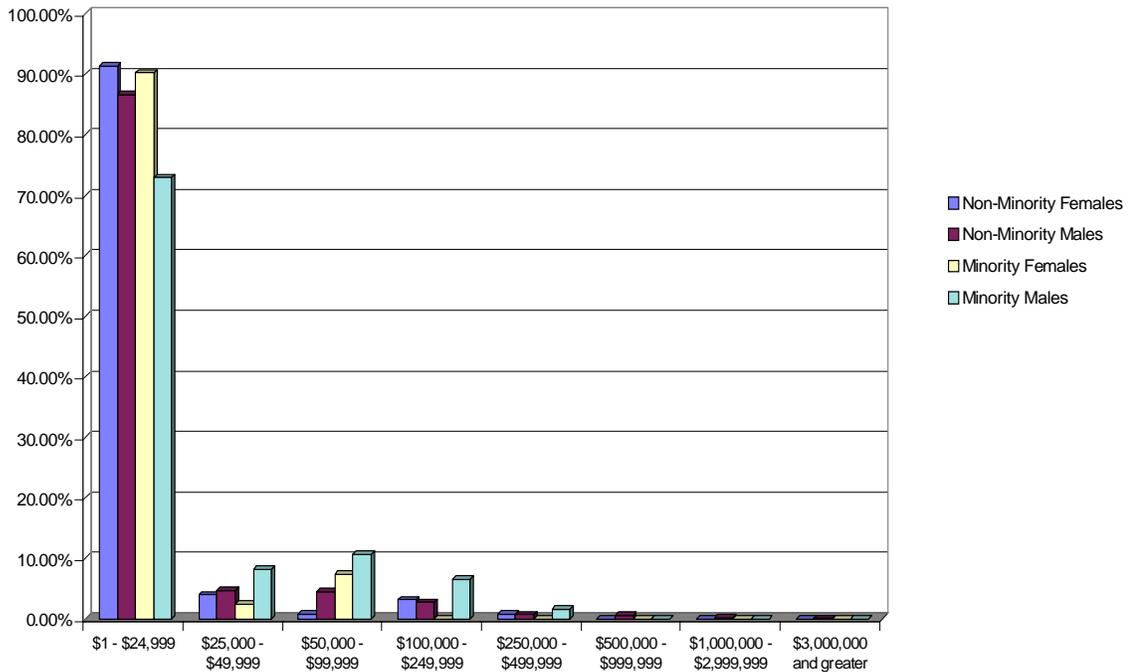
P-Value > 0.05



**Table 5.11 Professional Services Contracts by Size: October 1, 2002 to September 30, 2007**

Size	Non-Minority				Minority				Total	
	Females		Males		Females		Males			
	Freq	Percent	Freq	Percent	Freq	Percent	Freq	Percent	Freq	Percent
\$1 - \$24,999	116	91.34%	2,152	86.67%	37	90.24%	89	72.95%	2,394	86.33%
\$25,000 - \$49,999	5	3.94%	115	4.63%	1	2.44%	10	8.20%	131	4.72%
\$50,000 - \$99,999	1	0.79%	110	4.43%	3	7.32%	13	10.66%	127	4.58%
\$100,000 - \$249,999	4	3.15%	68	2.74%	0	0.00%	8	6.56%	80	2.88%
\$250,000 - \$499,999	1	0.79%	17	0.68%	0	0.00%	2	1.64%	20	0.72%
\$500,000 - \$999,999	0	0.00%	15	0.60%	0	0.00%	0	0.00%	15	0.54%
\$1,000,000 - \$2,999,999	0	0.00%	4	0.16%	0	0.00%	0	0.00%	4	0.14%
\$3,000,000 and greater	0	0.00%	2	0.08%	0	0.00%	0	0.00%	2	0.07%
<b>Total</b>	<b>127</b>	<b>100.00%</b>	<b>2483</b>	<b>100.00%</b>	<b>41</b>	<b>100.00%</b>	<b>122</b>	<b>100.00%</b>	<b>2773</b>	<b>100.00%</b>

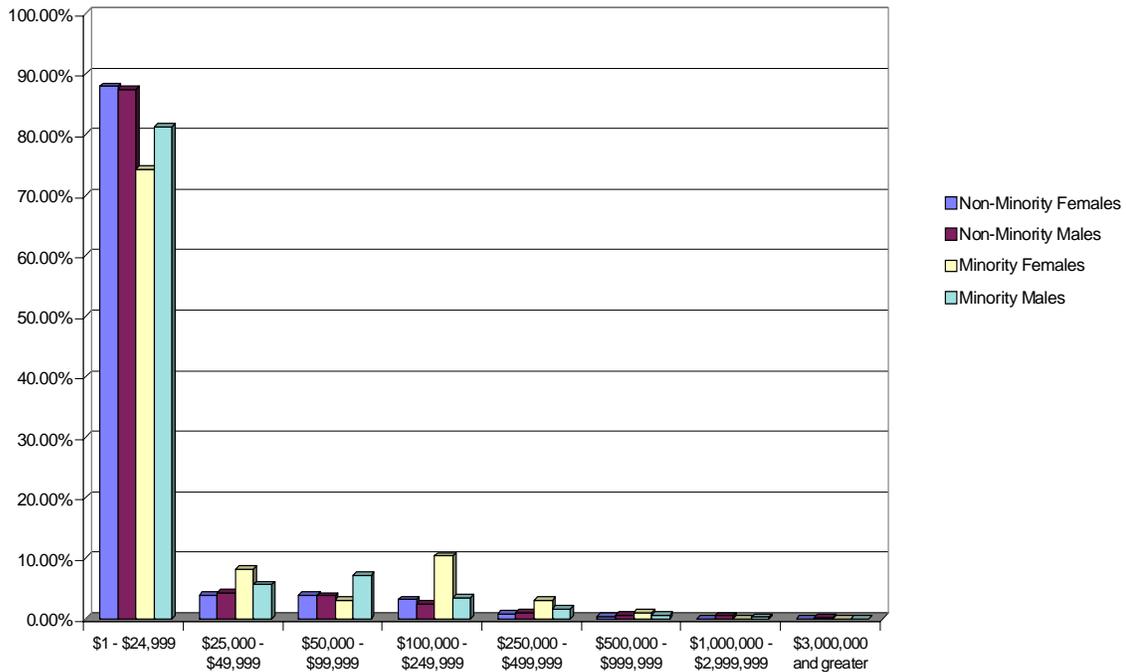
Insufficient Data



**Table 5.12 Non-Professional Services Contracts by Size:  
October 1, 2002 to September 30, 2007**

Size	Non-Minority				Minority				Total	
	Females		Males		Females		Males			
	Freq	Percent	Freq	Percent	Freq	Percent	Freq	Percent	Freq	Percent
\$1 - \$24,999	476	87.99%	6,616	87.46%	72	74.23%	305	81.33%	7,469	87.07%
\$25,000 - \$49,999	21	3.88%	323	4.27%	8	8.25%	21	5.60%	373	4.35%
\$50,000 - \$99,999	21	3.88%	285	3.77%	3	3.09%	27	7.20%	336	3.92%
\$100,000 - \$249,999	17	3.14%	178	2.35%	10	10.31%	13	3.47%	218	2.54%
\$250,000 - \$499,999	4	0.74%	72	0.95%	3	3.09%	6	1.60%	85	0.99%
\$500,000 - \$999,999	2	0.37%	46	0.61%	1	1.03%	2	0.53%	51	0.59%
\$1,000,000 - \$2,999,999	0	0.00%	35	0.46%	0	0.00%	1	0.27%	36	0.42%
\$3,000,000 and greater	0	0.00%	10	0.13%	0	0.00%	0	0.00%	10	0.12%
<b>Total</b>	<b>541</b>	<b>100.00%</b>	<b>7565</b>	<b>100.00%</b>	<b>97</b>	<b>100.00%</b>	<b>375</b>	<b>100.00%</b>	<b>8578</b>	<b>100.00%</b>

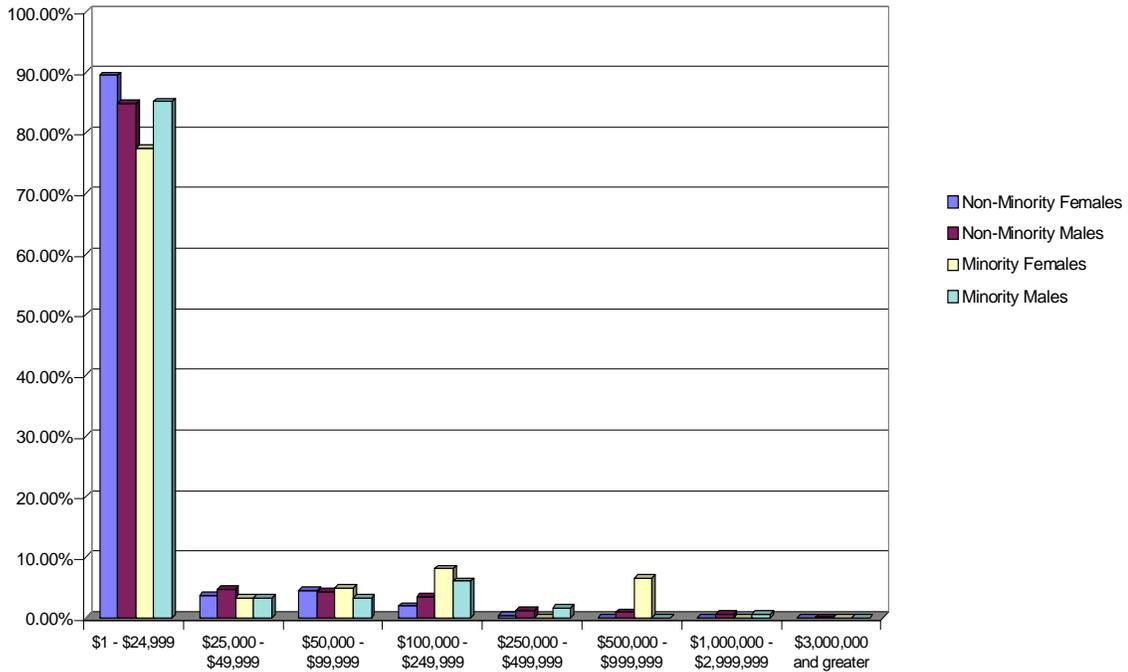
P-Value < 0.001



**Table 5.13 Goods Contracts by Size: October 1, 2002 to September 30, 2007**

Size	Non-Minority				Minority				Total	
	Females		Males		Females		Males			
	Freq	Percent	Freq	Percent	Freq	Percent	Freq	Percent	Freq	Percent
\$1 - \$24,999	417	89.48%	5,372	84.92%	48	77.42%	155	85.16%	5,992	85.16%
\$25,000 - \$49,999	17	3.65%	300	4.74%	2	3.23%	6	3.30%	325	4.62%
\$50,000 - \$99,999	21	4.51%	267	4.22%	3	4.84%	6	3.30%	297	4.22%
\$100,000 - \$249,999	9	1.93%	222	3.51%	5	8.06%	11	6.04%	247	3.51%
\$250,000 - \$499,999	2	0.43%	72	1.14%	0	0.00%	3	1.65%	77	1.09%
\$500,000 - \$999,999	0	0.00%	57	0.90%	4	6.45%	0	0.00%	61	0.87%
\$1,000,000 - \$2,999,999	0	0.00%	33	0.52%	0	0.00%	1	0.55%	34	0.48%
\$3,000,000 and greater	0	0.00%	3	0.05%	0	0.00%	0	0.00%	3	0.04%
<b>Total</b>	<b>466</b>	<b>100.00%</b>	<b>6326</b>	<b>100.00%</b>	<b>62</b>	<b>100.00%</b>	<b>182</b>	<b>100.00%</b>	<b>7036</b>	<b>100.00%</b>

P-Value < 0.05



**B. Largest M/WBE Contract Awards by The Consortium, by Industry**

M/WBEs were awarded large contracts in each industry. The distribution of the largest M/WBE contracts the City awarded is depicted below in Table 5.14. In each industry, M/WBEs were awarded very large, competitively bid contracts. The utilization analysis shows that M/WBEs demonstrated the capacity to successfully compete for contracts as large as \$5.1 million in construction, \$582,000 in architecture and engineering, \$300,000 in professional services, \$1.3 million in non-professional services, and \$1 million in goods.

**Table 5.14 Largest M/WBE Contract Awards by The City of Fort Worth**

Largest Contract Value					
Ethnic/ Gender Group	Construction	Architecture and Engineering	Professional Services	Non- Professional Services	Goods
<b>MBEs</b>	\$5,109,844	\$582,429	\$300,000	\$1,346,043	\$1,040,680
<b>WBEs</b>	\$2,078,644	\$227,193	\$272,998	\$553,793	\$466,500

M/WBEs also demonstrated the capacity to successfully compete for contracts awarded by the Consortium. The City of Arlington’s utilization analysis shows in Table 5.15 below that M/WBEs demonstrated the capacity to successfully compete for contracts as large as \$2 million in construction, \$1.3 million in architecture and engineering, \$500,000 in professional services, and \$2 million in non-professional services.

**Table 5.15 Largest M/WBE Contract Awards by The City of Arlington**

Largest Contract Value				
Ethnic / Gender Group	Construction	Architecture and Engineering	Professional Services	Non- Professional Services
<b>MBEs</b>	\$339,330	\$1,295,933	\$500,000	\$376,490
<b>WBEs</b>	\$1,990,682	\$494,000	\$339	\$1,996,475



The Fort Worth Independent School District’s utilization analysis shows in Table 5.16 below that M/WBEs demonstrated the capacity to successfully compete for contracts as large as \$13.4 million in construction, \$453,000 in architecture and engineering, \$34,000 in professional services, \$654,000 in non-professional services, and \$743,000 in goods.

**Table 5.16 Largest M/WBE Contract Awards by Fort Worth Independent School District**

<b>Largest Contract Value</b>					
<b>Ethnic / Gender Group</b>	<b>Construction</b>	<b>Architecture and Engineering</b>	<b>Professional Services</b>	<b>Non-Professional Services</b>	<b>Goods</b>
<b>MBEs</b>	\$13,420,819	\$453,067	\$32,844	\$654,267	\$228,950
<b>WBEs</b>	\$2,576,447	\$41,758	\$34,244	\$474,150	\$742,694

Fort Worth Transportation Authority’s utilization analysis shows in Table 5.17 below that M/WBEs demonstrated the capacity to successfully compete for contracts as large as \$25,000 in construction, \$4,000 in architecture and engineering, \$98,000 in professional services, \$500,000 in non-professional services, and \$72,000 in goods.

**Table 5.17 Largest M/WBE Contract Awards by Fort Worth Transportation Authority**

<b>Largest Contract Value</b>					
<b>Ethnic / Gender Group</b>	<b>Construction</b>	<b>Architecture and Engineering</b>	<b>Professional Services</b>	<b>Non-Professional Services</b>	<b>Goods</b>
<b>MBEs</b>	\$9,880	\$4,391	\$46,100	\$500,000	\$8,910
<b>WBEs</b>	\$24,949	\$0	\$98,232	\$195,968	\$72,242



Dallas/Fort Worth International Airport Board's utilization analysis shows in Table 5.18 below that M/WBEs demonstrated the capacity to successfully compete for contracts as large as \$12 million in construction, \$10.8 million in architecture and engineering, \$1 million in professional services, \$14 million in non-professional services, and \$1.7 million in goods.

**Table 5.18 Largest M/WBE Contract Awards by Dallas/Fort Worth International Airport Board**

Ethnic / Gender Group	Largest Contract Value				
	Construction	Architecture and Engineering	Professional Services	Non-Professional Services	Goods
<b>MBEs</b>	\$12,000,000	\$10,756,159	\$533,000	\$14,063,193	\$518,944
<b>WBEs</b>	\$12,000,000	\$2,500,000	\$1,000,000	\$4,523,467	\$1,690,577

The North Texas Tollway Authority's utilization analysis shows in Table 5.19 below that M/WBEs demonstrated the capacity to successfully compete for contracts as large as \$5 million in construction, \$1.9 million in architecture and engineering, \$110,000 in professional services, \$125,000 in non-professional services, and \$129,000 in goods.

**Table 5.19 Largest M/WBE Contract Awards by North Texas Tollway Authority**

Ethnic / Gender Group	Largest Contract Value				
	Construction	Architecture and Engineering	Professional Services	Non-Professional Services	Goods
<b>MBEs</b>	\$483,842	\$1,855,312	\$110,150	\$32,812	\$118,203
<b>WBEs</b>	\$5,094,978	\$1,487,526	\$37,750	\$125,225	\$129,180



### **C. City and The Consortium Certification Standards**

The Court has addressed the merits of certification as a measure of capacity.<sup>7</sup> *Philadelphia*, an appellate court decision, found that a certification program which was based on USDOT standards satisfied the determination of a business's capability. Thus, a certification program like NCTRCA which adheres to the standards set forth in the USDOT regulations, 49 Code of Federal Regulations Part 26, may also be considered as documentation of M/WBE capacity.

## **IV. PRIME CONTRACTOR AVAILABILITY ANALYSIS**

The size of the City's contracts demonstrates that the majority of the contracts are small requiring limited capacity to perform. Furthermore, the awards the City has made to M/WBE businesses demonstrate that the capacity of the available businesses is considerably greater than needed to bid on the majority of the contracts awarded in the five industries studied.

The prime contractor availability findings for the Dallas and Tarrant counties market area, are summarized below:

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<sup>7</sup> *Contractors Ass'n of Eastern Pennsylvania v. City of Philadelphia*, 6 F.3d 990 (3d Cir. 1993), on remand, 893 F. Supp. 419 (E.D. Penn. 1995), affd, 91 F.3d 586 (3d Cir. 1996).



## **A. Construction Prime Contractor Availability**

The distribution of available construction prime contractors is summarized in Table 5.20 below. These ethnic and gender groups are defined in Table 2.01 of *Chapter 2: Prime Contractor Utilization Analysis*.

*African Americans* account for 21.7 percent of the construction businesses in the City's market area.

*Asian Americans* account for 3.62 percent of the construction businesses in the City's market area.

*Hispanic Americans* account for 19.9 percent of the construction businesses in the City's market area.

*Native Americans* account for 2.3 percent of the construction businesses in the City's market area.

*Minority Business Enterprises* account for 47.52 percent of the construction businesses in the City's market area.

*Women Business Enterprises* account for 18.96 percent of the construction businesses in the City's market area.

*Minority and Women Business Enterprises* account for 66.48 percent of the construction businesses in the City's market area.

*Non-Minority and Non-Women Business Enterprises* account for 33.52 percent of the construction businesses in the City's market area.



**Table 5.20 Available Construction Prime Contractors**

<b>Ethnicity<sup>^</sup></b>	<b>Percent of Businesses</b>
African Americans	21.70%
Asian Americans	3.62%
Hispanic Americans	19.90%
Native Americans	2.30%
Caucasian Females	18.96%
Non-Minority Males	33.52%
<b>TOTAL</b>	<b>100.00%</b>
<b>Ethnicity and Gender</b>	<b>Percent of Businesses</b>
African American Females	4.43%
African American Males	17.27%
Asian American Females	0.84%
Asian American Males	2.78%
Hispanic American Females	3.57%
Hispanic American Males	16.33%
Native American Females	0.78%
Native American Males	1.52%
Caucasian Females	18.96%
Non-Minority Males	33.52%
<b>TOTAL</b>	<b>100.00%</b>
<b>Minority and Gender</b>	<b>Percent of Businesses</b>
Minority Females	9.62%
Minority Males	37.90%
Caucasian Females	18.96%
Non-Minority Males	33.52%
<b>TOTAL</b>	<b>100.00%</b>
<b>Minority and Females</b>	<b>Percent of Businesses</b>
Minority Business Enterprises	47.52%
Women Business Enterprises	18.96%
<b>Minority and Women Business Enterprises</b>	<b>66.48%</b>
Non-Minority and Non-Women Business Enterprises	33.52%
<b>TOTAL</b>	<b>100.00%</b>

<sup>^</sup> See Chapter 2: Prime Contractor Utilization Analysis, Table 2.01 for a definition of each ethnic and gender group



## ***B. Architecture and Engineering Services Prime Contractor Availability***

The distribution of available architecture and engineering prime contractors is summarized in Table 5.21 below:

*African Americans* account for 14.28 percent of the architecture and engineering businesses in the City's market area.

*Asian Americans* account for 8.18 percent of the architecture and engineering businesses in the City's market area.

*Hispanic Americans* account for 11.86 percent of the architecture and engineering businesses in the City's market area.

*Native Americans* account for 1.41 percent of the architecture and engineering businesses in the City's market area.

*Minority Business Enterprises* account for 35.72 percent of the architecture and engineering businesses in the City's market area.

*Women Business Enterprises* account for 18.3 percent of the architecture and engineering businesses in the City's market area.

*Minority and Women Business Enterprises* account for 54.02 percent of the architecture and engineering businesses in the City's market area.

*Non-Minority and Non-Women Business Enterprises* account for 45.98 percent of the architecture and engineering businesses in the City's market area.



**Table 5.21 Available Architecture and Engineering Prime Contractors**

<b>Ethnicity<sup>^</sup></b>	<b>Percent of Businesses</b>
African Americans	14.28%
Asian Americans	8.18%
Hispanic Americans	11.86%
Native Americans	1.41%
Caucasian Females	18.30%
Non-Minority Males	45.98%
<b>TOTAL</b>	<b>100.00%</b>
<b>Ethnicity and Gender</b>	<b>Percent of Businesses</b>
African American Females	2.82%
African American Males	11.46%
Asian American Females	1.61%
Asian American Males	6.57%
Hispanic American Females	2.28%
Hispanic American Males	9.58%
Native American Females	0.40%
Native American Males	1.01%
Caucasian Females	18.30%
Non-Minority Males	45.98%
<b>TOTAL</b>	<b>100.00%</b>
<b>Minority and Gender</b>	<b>Percent of Businesses</b>
Minority Females	7.10%
Minority Males	28.62%
Caucasian Females	18.30%
Non-Minority Males	45.98%
<b>TOTAL</b>	<b>100.00%</b>
<b>Minority and Females</b>	<b>Percent of Businesses</b>
Minority Business Enterprises	35.72%
Women Business Enterprises	18.30%
<b>Minority and Women Business Enterprises</b>	<b>54.02%</b>
Non-Minority and Non-Women Business Enterprises	45.98%
<b>TOTAL</b>	<b>100.00%</b>

<sup>^</sup> See Chapter 2: Prime Contractor Utilization Analysis, Table 2.01 for a definition of each ethnic and gender group



### **C. Professional Services Prime Contractor Availability**

The distribution of available professional services prime contractors is summarized in Table 5.22 below:

*African Americans* account for 20.59 percent of the professional services businesses in the City's market area.

*Asian Americans* account for 6.31 percent of the professional services businesses in the City's market area.

*Hispanic Americans* account for 8.87 percent of the professional services businesses in the City's market area.

*Native Americans* account for 1.02 percent of the professional services businesses in the City's market area.

*Minority Business Enterprises* account for 36.79 percent of the professional services businesses in the City's market area.

*Women Business Enterprises* account for 25.29 percent of the professional services businesses in the City's market area.

*Minority and Women Business Enterprises* account for 62.08 percent of the professional services businesses in the City's market area.

*Non-Minority and Non-Women Business Enterprises* account for 37.92 percent of the professional services businesses in the City's market area.



**Table 5.22 Available Professional Services Prime Contractors**

<b>Ethnicity<sup>^</sup></b>	<b>Percent of Businesses</b>
African Americans	20.59%
Asian Americans	6.31%
Hispanic Americans	8.87%
Native Americans	1.02%
Caucasian Females	25.29%
Non-Minority Males	37.92%
<b>TOTAL</b>	<b>100.00%</b>
<b>Ethnicity and Gender</b>	<b>Percent of Businesses</b>
African American Females	9.38%
African American Males	11.22%
Asian American Females	2.02%
Asian American Males	4.29%
Hispanic American Females	3.06%
Hispanic American Males	5.80%
Native American Females	0.41%
Native American Males	0.61%
Caucasian Females	25.29%
Non-Minority Males	37.92%
<b>TOTAL</b>	<b>100.00%</b>
<b>Minority and Gender</b>	<b>Percent of Businesses</b>
Minority Females	14.87%
Minority Males	21.92%
Caucasian Females	25.29%
Non-Minority Males	37.92%
<b>TOTAL</b>	<b>100.00%</b>
<b>Minority and Females</b>	<b>Percent of Businesses</b>
Minority Business Enterprises	36.79%
Women Business Enterprises	25.29%
<b>Minority and Women Business Enterprises</b>	<b>62.08%</b>
Non-Minority and Non-Women Business Enterprises	37.92%
<b>TOTAL</b>	<b>100.00%</b>

<sup>^</sup> See Chapter 2: Prime Contractor Utilization Analysis, Table 2.01 for a definition of each ethnic and gender group



#### ***D. Non-Professional Services Prime Contractor Availability***

The distribution of available non-professional services prime contractors is summarized in Table 5.23 below:

*African Americans* account for 19.71 percent of the non-professional services businesses in the City's market area.

*Asian Americans* account for 3.31 percent of the non-professional services businesses in the City's market area.

*Hispanic Americans* account for 9.57 percent of the non-professional services businesses in the City's market area.

*Native Americans* account for 0.87 percent of the non-professional services businesses in the City's market area.

*Minority Business Enterprises* account for 33.46 percent of the non-professional services businesses in the City's market area.

*Women Business Enterprises* account for 20.14 percent of the non-professional services businesses in the City's market area.

*Minority and Women Business Enterprises* account for 53.6 percent of the non-professional services businesses in the City's market area.

*Non-Minority and Non-Women Business Enterprises* account for 46.4 percent of the non-professional services businesses in the City's market area.



**Table 5.23 Available Non-Professional Services Prime Contractors**

<b>Ethnicity<sup>^</sup></b>	<b>Percent of Businesses</b>
African Americans	19.71%
Asian Americans	3.31%
Hispanic Americans	9.57%
Native Americans	0.87%
Caucasian Females	20.14%
Non-Minority Males	46.40%
<b>TOTAL</b>	<b>100.00%</b>
<b>Ethnicity and Gender</b>	<b>Percent of Businesses</b>
African American Females	6.85%
African American Males	12.86%
Asian American Females	1.07%
Asian American Males	2.24%
Hispanic American Females	2.93%
Hispanic American Males	6.64%
Native American Females	0.39%
Native American Males	0.48%
Caucasian Females	20.14%
Non-Minority Males	46.40%
<b>TOTAL</b>	<b>100.00%</b>
<b>Minority and Gender</b>	<b>Percent of Businesses</b>
Minority Females	11.24%
Minority Males	22.22%
Caucasian Females	20.14%
Non-Minority Males	46.40%
<b>TOTAL</b>	<b>100.00%</b>
<b>Minority and Females</b>	<b>Percent of Businesses</b>
Minority Business Enterprises	33.46%
Women Business Enterprises	20.14%
<b>Minority and Women Business Enterprises</b>	<b>53.60%</b>
Non-Minority and Non-Women Business Enterprises	46.40%
<b>TOTAL</b>	<b>100.00%</b>

<sup>^</sup> See Chapter 2: Prime Contractor Utilization Analysis, Table 2.01 for a definition of each ethnic and gender group



## ***E. Goods Prime Contractor Availability***

The distribution of available goods prime contractors is summarized in Table 5.24.

*African Americans* account for 13.09 percent of the goods businesses in the City's market area.

*Asian Americans* account for 4.4 percent of the goods businesses in the City's market area.

*Hispanic Americans* account for 7.47 percent of the goods businesses in the City's market area.

*Native American Businesses* account for 1.61 percent of the goods businesses in the City's market area.

*Minority Business Enterprises* account for 26.57 percent of the goods businesses in the City's market area.

*Women Business Enterprises* account for 20.15 percent of the goods businesses in the City's market area.

*Minority and Women Business Enterprises* account for 46.71 percent of the goods businesses in the City's market area.

*Non-Minority and Non-Women Business Enterprises* account for 53.29 percent of the goods businesses in the City's market area.



**Table 5.24 Available Goods Prime Contractors**

<b>Ethnicity<sup>^</sup></b>	<b>Percent of Businesses</b>
African Americans	13.09%
Asian Americans	4.40%
Hispanic Americans	7.47%
Native Americans	1.61%
Caucasian Females	20.15%
Non-Minority Males	53.29%
<b>TOTAL</b>	<b>100.00%</b>
<b>Ethnicity and Gender</b>	<b>Percent of Businesses</b>
African American Females	4.83%
African American Males	8.26%
Asian American Females	1.40%
Asian American Males	2.99%
Hispanic American Females	2.36%
Hispanic American Males	5.12%
Native American Females	0.60%
Native American Males	1.00%
Caucasian Females	20.15%
Non-Minority Males	53.29%
<b>TOTAL</b>	<b>100.00%</b>
<b>Minority and Gender</b>	<b>Percent of Businesses</b>
Minority Females	9.20%
Minority Males	17.37%
Caucasian Females	20.15%
Non-Minority Males	53.29%
<b>TOTAL</b>	<b>100.00%</b>
<b>Minority and Females</b>	<b>Percent of Businesses</b>
Minority Business Enterprises	26.57%
Women Business Enterprises	20.15%
<b>Minority and Women Business Enterprises</b>	<b>46.71%</b>
Non-Minority and Non-Women Business Enterprises	53.29%
<b>TOTAL</b>	<b>100.00%</b>

<sup>^</sup> See Chapter 2: Prime Contractor Utilization Analysis, Table 2.01 for a definition of each ethnic and gender group



## **V. SUBCONTRACTOR AVAILABILITY ANALYSIS**

### **A. Sources of Potentially Willing and Able Subcontractors and Availability**

All available prime contractors were included in the calculation of subcontractor availability. Additional subcontractors in the City's market area were identified using sources in Table 5.25.

**Table 5.25 Unique Subcontractor Availability Data Sources**

<b>Type Record</b>	<b>Type Information</b>
• Subcontracting records provided by the City and the Consortium	• M/WBEs and non-M/WBEs
• Prime contractor survey which identified subcontractors utilized by the City and the Consortium	• M/WBEs and non-M/WBEs

### **B. Determination of Willingness and Capacity**

Subcontractor availability was limited to businesses determined to be willing and able to perform as prime contractors and businesses utilized as subcontractors; therefore, the determination of willingness was achieved. *Croson* does not require a measure of subcontractor capacity; therefore, it is not necessary to address capacity issues in the context of subcontractors.



### **C. Construction Subcontractor Availability**

The distribution of available construction subcontractors is summarized in Table 5.26.

*African Americans* account for 18.19 percent of the construction firms in the City's market area.

*Asian Americans* account for 3.05 percent of the construction firms in the City's market area.

*Hispanic Americans* account for 17.23 percent of the construction firms in the City's market area.

*Native Americans* account for 2.08 percent of the construction firms in the City's market area.

*Minority Business Enterprises* account for 40.55 percent of the construction firms in the City's market area.

*Women Business Enterprises* account for 18.13 percent of the construction firms in the City's market area.

*Minority and Women Business Enterprises* account for 58.68 percent of the construction firms in the City's market area.

*Non-Minority and Non-Women Business Enterprises* account for 41.32 percent of the construction firms in the City's market area.



**Table 5.26 Available Construction Subcontractors**

<b>Ethnicity<sup>^</sup></b>	<b>Percent of Businesses</b>
African Americans	18.19%
Asian Americans	3.05%
Hispanic Americans	17.23%
Native Americans	2.08%
Caucasian Females	18.13%
Non-Minority Males	41.32%
<b>TOTAL</b>	<b>100.00%</b>
<b>Ethnicity and Gender</b>	<b>Percent of Businesses</b>
African American Females	3.88%
African American Males	14.32%
Asian American Females	0.75%
Asian American Males	2.30%
Hispanic American Females	3.39%
Hispanic American Males	13.83%
Native American Females	0.67%
Native American Males	1.41%
Caucasian Females	18.13%
Non-Minority Males	41.32%
<b>TOTAL</b>	<b>100.00%</b>
<b>Minority and Gender</b>	<b>Percent of Businesses</b>
Minority Females	8.68%
Minority Males	31.87%
Caucasian Females	18.13%
Non-Minority Males	41.32%
<b>TOTAL</b>	<b>100.00%</b>
<b>Minority and Females</b>	<b>Percent of Businesses</b>
Minority Business Enterprises	40.55%
Women Business Enterprises	18.13%
<b>Minority and Women Business Enterprises</b>	<b>58.68%</b>
Non-Minority and Non-Women Business Enterprises	41.32%
<b>TOTAL</b>	<b>100.00%</b>

<sup>^</sup> See Chapter 2: Prime Contractor Utilization Analysis, Table 2.01 for a definition of each ethnic and gender group



#### **D. Architecture and Engineering Subcontractor Availability**

The distribution of available architecture and engineering subcontractors is summarized in Table 5.27.

*African Americans* account for 13.43 percent of the architecture and engineering firms in the City's market area.

*Asian Americans* account for 7.38 percent of the architecture and engineering firms in the City's market area.

*Hispanic Americans* account for 11.41 percent of the architecture and engineering firms in the City's market area.

*Native Americans* account for 1.61 percent of the architecture and engineering firms in the City's market area.

*Minority Business Enterprises* account for 33.83 percent of the architecture and engineering firms in the City's market area.

*Women Business Enterprises* account for 20.23 percent of the architecture and engineering in the City's market area.

*Minority and Women Business Enterprises* account for 54.06 percent of the architecture and engineering firms in the City's market area.

*Non-Minority and Non-Women Business Enterprises* account for 45.94 percent of the architecture and engineering firms in the City's market area.



**Table 5.27 Available Architecture and Engineering Subcontractors**

<b>Ethnicity<sup>^</sup></b>	<b>Percent of Businesses</b>
African Americans	13.43%
Asian Americans	7.38%
Hispanic Americans	11.41%
Native Americans	1.61%
Caucasian Females	20.23%
Non-Minority Males	45.94%
<b>TOTAL</b>	<b>100.00%</b>
<b>Ethnicity and Gender</b>	<b>Percent of Businesses</b>
African American Females	2.65%
African American Males	10.78%
Asian American Females	1.67%
Asian American Males	5.71%
Hispanic American Females	2.25%
Hispanic American Males	9.16%
Native American Females	0.58%
Native American Males	1.04%
Caucasian Females	20.23%
Non-Minority Males	45.94%
<b>TOTAL</b>	<b>100.00%</b>
<b>Minority and Gender</b>	<b>Percent of Businesses</b>
Minority Females	7.15%
Minority Males	26.69%
Caucasian Females	20.23%
Non-Minority Males	45.94%
<b>TOTAL</b>	<b>100.00%</b>
<b>Minority and Females</b>	<b>Percent of Businesses</b>
Minority Business Enterprises	33.83%
Women Business Enterprises	20.23%
<b>Minority and Women Business Enterprises</b>	<b>54.06%</b>
Non-Minority and Non-Women Business Enterprises	45.94%
<b>TOTAL</b>	<b>100.00%</b>

<sup>^</sup> See Chapter 2: Prime Contractor Utilization Analysis, Table 2.01 for a definition of each ethnic and gender group



## ***E. Professional Services Subcontractor Availability***

The distribution of available professional services subcontractors is summarized in Table 5.28.

*African Americans* account for 20.4 percent of the professional services firms in the City's market area.

*Asian Americans* account for 6.14 percent of the professional services firms in the City's market area.

*Hispanic Americans* account for 9.15 percent of the professional services firms in the City's market area.

*Native Americans* account for 1.28 percent of the professional services firms in the City's market area.

*Minority Business Enterprises* account for 36.96 percent of the professional services firms in the City's market area.

*Women Business Enterprises* account for 25.7 percent of the professional services in the City's market area.

*Minority and Women Business Enterprises* account for 62.66 percent of the professional services firms in the City's market area.

*Non-Minority and Non-Women Business Enterprises* account for 37.34 percent of the professional services firms in the City's market area.



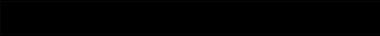
**Table 5.28 Available Professional Services Subcontractors**

<b>Ethnicity<sup>^</sup></b>	<b>Percent of Businesses</b>
African Americans	20.40%
Asian Americans	6.14%
Hispanic Americans	9.15%
Native Americans	1.28%
Caucasian Females	25.70%
Non-Minority Males	37.34%
<b>TOTAL</b>	<b>100.00%</b>
<b>Ethnicity and Gender</b>	<b>Percent of Businesses</b>
African American Females	9.24%
African American Males	11.16%
Asian American Females	1.89%
Asian American Males	4.24%
Hispanic American Females	3.07%
Hispanic American Males	6.08%
Native American Females	0.52%
Native American Males	0.76%
Caucasian Females	25.70%
Non-Minority Males	37.34%
<b>TOTAL</b>	<b>100.00%</b>
<b>Minority and Gender</b>	<b>Percent of Businesses</b>
Minority Females	14.72%
Minority Males	22.24%
Caucasian Females	25.70%
Non-Minority Males	37.34%
<b>TOTAL</b>	<b>100.00%</b>
<b>Minority and Females</b>	<b>Percent of Businesses</b>
Minority Business Enterprises	36.96%
Women Business Enterprises	25.70%
<b>Minority and Women Business Enterprises</b>	<b>62.66%</b>
Non-Minority and Non-Women Business Enterprises	37.34%
<b>TOTAL</b>	<b>100.00%</b>

<sup>^</sup> See Chapter 2: Prime Contractor Utilization Analysis, Table 2.01 for a definition of each ethnic and gender group



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# 6

## **PRIME CONTRACTOR DISPARITY ANALYSIS**

### **I. INTRODUCTION**

The objective of the disparity analysis is to determine the level minority and woman-owned business enterprises (M/WBEs) were utilized on the City of Fort Worth (City) contracts. Minority business enterprises are analyzed according to ethnic group. Under a fair and equitable system of awarding contracts, the proportion of contract dollars awarded to M/WBEs would be approximate to the proportion of available M/WBEs<sup>1</sup> in the relevant market area. A statistical test is conducted to determine if the available M/WBE businesses are underutilized due to random chance or something else.<sup>2</sup> According to *Croson*, if the statistical test is significant, then prima facie an inference of discrimination can be made.

The first step in conducting a statistical test of disparity is to calculate the contract value that each ethnic and gender group is expected to receive, based on each group's availability in the market area. This value shall be referred to as the **expected contract amount**. The next step is to compute the difference between the expected contract amount of each ethnic and gender group and the **actual contract amount** received by each group.

A disparity ratio of less than 0.80 indicates a relevant degree of disparity. This disparity may be detected using a parametric analysis,<sup>3</sup> where the number of contracts is sufficiently large and the variation of the contract amount is not too large. When the standard deviation in the contract dollar amounts is high, which generally is the result of a few very large contracts,

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<sup>1</sup> Availability is defined as the number of willing and able firms. The methodology for determining willing and able firms is detailed in *Chapter 5: Availability Analysis*.

<sup>2</sup> The study does not test statistically the overutilization of M/WBEs or the utilization of Non-Minority Males.

<sup>3</sup> Parametric analysis is a statistical examination based on the actual values of the variable. In this case, the parametric analysis consists of the actual dollar values of the contracts.



a disparity may not be detectable. Under the condition when the variation in contract dollar amounts is high, a non-parametric analysis<sup>4</sup> would be employed to analyze the contracts ranked by dollar amount. Using the non-parametric analysis lowers the variance, because it reduces the effect of the outliers in the analysis.

In order to assess whether the difference in contract values is attributable to chance, a P-value<sup>5</sup> is calculated. The P-value takes into account the number of contracts, amount of contract dollars, and variation in contract dollars. If the difference between the actual and expected number of contracts and total contract dollars has a P-value of less than 0.05, the difference is statistically significant.<sup>6</sup>

There are two critical constraints in performing statistical tests of significance. First, the size of the population affects the power of the statistical results. In other words, a relatively small population size, whether in terms of the total number of contracts or the total number of available businesses, decreases the power of the statistical results. Second, although an inference of discrimination cannot be made if statistical significance is not obtained from the test, one cannot infer from the results that there was no discrimination. Thus, the results of the statistical disparity analysis are necessarily influenced by the size of the population in each industry and ethnic and gender category. Where the results are not statistically significant, the existence of discrimination *cannot* be ruled out. Given these limitations, the anecdotal data has an especially important role in explaining the conditions of discrimination that might exist in the market area.

The analysis of the value of contract dollars for each ethnic and gender group incorporates the number of contracts awarded. Hence, the disparity analysis for the value of contract dollars awarded reflects an analysis of both the number of contracts awarded and the value of the contract dollars received by each ethnic and gender group.

It is important to note that the findings of statistical significance may be counterintuitive. It is not infrequent that the same disparity ratio, or the same difference between the utilization percentage and the availability percentage, is statistically significant in one industry and not statistically significant in another.

The test of statistical significance determines whether the difference between the actual dollars and the expected dollars exceeds two standard deviations. However, the standard deviation is calculated separately by industry for each ethnic and gender group. For each

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4 Non-parametric analysis is a method to make data more suitable for statistical testing by allowing one variable to be replaced with a new variable that maintains the essential characteristics of the original one. In this case, the contracts are ranked from the smallest to the largest. The dollar value of each contract is replaced with its rank order number.

5 P-value is a measure of statistical significance.

6 The study does not test statistically the overutilization of M/WBEs or the underutilization of Non-Minority Males.



industry studied the calculation of the standard deviation is based on the total number of contracts and dollars analyzed in the Study and each ethnic and gender groups, respective percentage of availability. Therefore, the findings of statistical significance are influenced by the percentage of availability for each ethnic and gender group in the industry. In effect across the industries, similar utilization patterns with different availability patterns could yield different findings of statistical significance.

## **II. DISPARITY ANALYSIS**

A disparity analysis was performed on construction, architecture and engineering, professional services, non-professional services, and goods contracts issued between October 1, 2002 and September 30, 2007.

As demonstrated in *Chapter 5: Availability Analysis*, the majority of the City's contracts were small with 82.59 percent under \$25,000 and 91.88 percent under \$100,000. The fact that the majority of the City's contracts were small suggests that the capacity needed to perform most of the contracts analyzed during the study period was minimal. There is also evidence that a notable number of willing firms had the capacity to perform contracts in excess of \$500,000. Therefore, a threshold of \$500,000 was set for the prime contractor disparity analysis to ensure that there were willing firms with the capacity to perform contracts included in the analysis. The prime contractor disparity findings in the five industries under consideration are summarized below.



## **A. Disparity Analysis: All Contracts under \$500,000, by Industry**

### **1. Construction Contracts under \$500,000**

The disparity analysis of all construction contracts under \$500,000 is depicted in Table 6.01 and Chart 6.01. These ethnic and gender groups are defined in Table 2.01 of *Chapter 2: Prime Contractor Utilization Analysis*.

*African American Businesses* represent 21.7 percent of the available construction firms and received 1.67 percent of the dollars for construction contracts under \$500,000. This underutilization is statistically significant.

*Asian American Businesses* represent 3.62 percent of the available construction firms and received 1.43 percent of the dollars for construction contracts under \$500,000. This underutilization is statistically significant.

*Hispanic American Businesses* represent 19.9 percent of the available construction firms and received 6.82 percent of the dollars for construction contracts under \$500,000. This underutilization is statistically significant.

*Native American Businesses* represent 2.3 percent of the available construction firms and received 0.19 percent of the dollars for construction contracts under \$500,000. This underutilization is statistically significant.

*Minority Business Enterprises* represent 47.52 percent of the available construction firms and received 10.1 percent of the dollars for construction contracts under \$500,000. This underutilization is statistically significant.

*Women Business Enterprises* represent 18.96 percent of the available construction firms and received 7.79 percent of the dollars for construction contracts under \$500,000. This underutilization is statistically significant.

*Minority and Women Business Enterprises* represent 66.48 percent of available construction firms and received 17.89 percent of the dollars for construction contracts under \$500,000. This underutilization is statistically significant.

*Non-Minority and Non-Women Business Enterprises* represent 33.52 percent of the available construction firms and received 82.11 percent of the dollars for construction contracts under \$500,000. This overutilization is statistically significant.



**Table 6.01 Disparity Analysis: Construction Contracts under \$500,000, October 1, 2002 to September 30, 2007**

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8
<b>Ethnicity<sup>^</sup></b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
African Americans	\$1,252,051	1.67%	21.70%	\$16,274,349	-\$15,022,297	0.08	< .05 *
Asian Americans	\$1,068,981	1.43%	3.62%	\$2,715,556	-\$1,646,575	0.39	< .05 *
Hispanic Americans	\$5,113,308	6.82%	19.90%	\$14,926,066	-\$9,812,757	0.34	< .05 *
Native Americans	\$145,049	0.19%	2.30%	\$1,728,081	-\$1,583,032	0.08	< .05 *
Caucasian Females	\$5,843,146	7.79%	18.96%	\$14,223,439	-\$8,380,293	0.41	< .05 *
Non-Minority Males	\$61,587,590	82.11%	33.52%	\$25,142,635	\$36,444,955	2.45	< .05 †
<b>TOTAL</b>	<b>\$75,010,126</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$75,010,126</b>			
<b>Ethnicity and Gender</b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
African American Females	\$150,652	0.20%	4.43%	\$3,323,233	-\$3,172,581	0.05	< .05 *
African American Males	\$1,101,399	1.47%	17.27%	\$12,951,115	-\$11,849,716	0.09	< .05 *
Asian American Females	\$0	0.00%	0.84%	\$626,667	-\$626,667	0.00	---
Asian American Males	\$1,068,981	1.43%	2.78%	\$2,088,890	-\$1,019,908	0.51	not significant
Hispanic American Females	\$226,787	0.30%	3.57%	\$2,677,577	-\$2,450,789	0.08	< .05 *
Hispanic American Males	\$4,886,521	6.51%	16.33%	\$12,248,489	-\$7,361,968	0.40	< .05 *
Native American Females	\$102,113	0.14%	0.78%	\$588,687	-\$486,574	0.17	---
Native American Males	\$42,936	0.06%	1.52%	\$1,139,394	-\$1,096,458	0.04	< .05 *
Caucasian Females	\$5,843,146	7.79%	18.96%	\$14,223,439	-\$8,380,293	0.41	< .05 *
Non-Minority Males	\$61,587,590	82.11%	33.52%	\$25,142,635	\$36,444,955	2.45	< .05 †
<b>TOTAL</b>	<b>\$75,010,126</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$75,010,126</b>			
<b>Minority and Gender</b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
Minority Females	\$479,552	0.64%	9.62%	\$7,216,164	-\$6,736,612	0.07	< .05 *
Minority Males	\$7,099,838	9.47%	37.90%	\$28,427,888	-\$21,328,051	0.25	< .05 *
Caucasian Females	\$5,843,146	7.79%	18.96%	\$14,223,439	-\$8,380,293	0.41	< .05 *
Non-Minority Males	\$61,587,590	82.11%	33.52%	\$25,142,635	\$36,444,955	2.45	< .05 †
<b>TOTAL</b>	<b>\$75,010,126</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$75,010,126</b>			
<b>Minority and Females</b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
Minority Business Enterprises	\$7,579,390	10.10%	47.52%	\$35,644,052	-\$28,064,662	0.21	< .05 *
Women Business Enterprises	\$5,843,146	7.79%	18.96%	\$14,223,439	-\$8,380,293	0.41	< .05 *
<b>Minority and Women Business Enterprises</b>	<b>\$13,422,536</b>	<b>17.89%</b>	<b>66.48%</b>	<b>\$49,867,492</b>	<b>-\$36,444,955</b>	<b>0.27</b>	<b>&lt; .05 *</b>
Non-Minority and Non-Women Business Enterprises	\$61,587,590	82.11%	33.52%	\$25,142,635	\$36,444,955	2.45	< .05 †

( \*) denotes a statistically significant underutilization.

( † ) denotes a statistically significant overutilization.

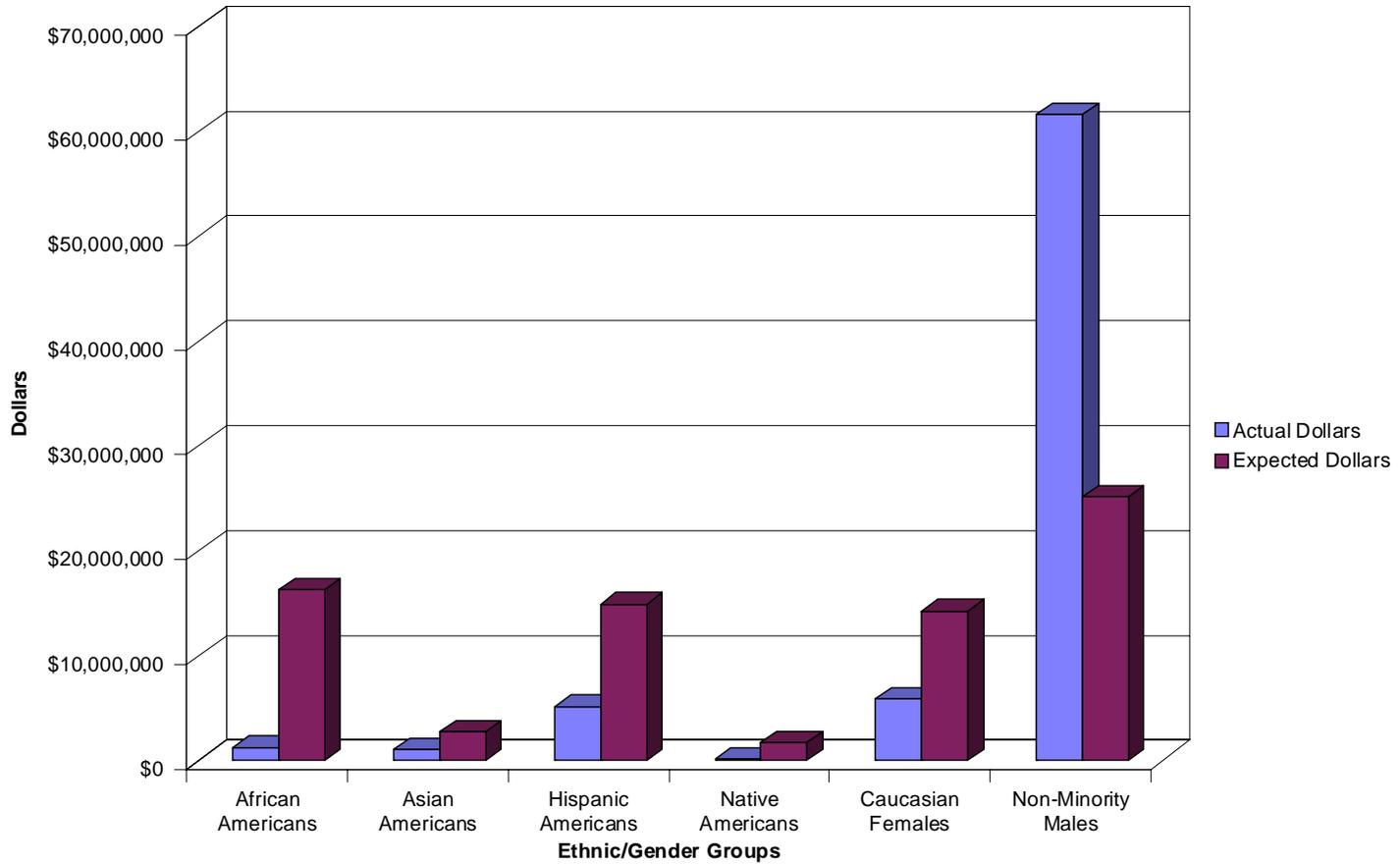
( \*\* ) this study does not test statistically the overutilization of M/WBEs or the underutilization of Caucasian males.

( --- ) denotes an underutilized group with too few available firms to test statistical significance.

<sup>^</sup> See Chapter 2: Prime Contractor Utilization Analysis, Table 2.01 for a definition of each ethnic and gender group

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**Chart 6.01 Disparity Analysis: Construction Contracts under \$500,000, October 1, 2002 to September 30, 2007**



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## 2. Architecture and Engineering Contracts under \$500,000

The disparity analysis of all architecture and engineering contracts under \$500,000 is depicted in Table 6.02 and Chart 6.02.

*African American Businesses* represent 14.28 percent of the available architecture and engineering firms and received 3.28 percent of the dollars for architecture and engineering contracts under \$500,000. This underutilization is statistically significant.

*Asian American Businesses* represent 8.18 percent of the available architecture and engineering firms and received 2.02 percent of the dollars for architecture and engineering contracts under \$500,000. This underutilization is statistically significant.

*Hispanic American Businesses* represent 11.86 percent of the available architecture and engineering firms and received 7.15 percent of the dollars for architecture and engineering contracts under \$500,000. This underutilization is statistically significant.

*Native American Businesses* represent 1.41 percent of the available architecture and engineering firms and received none of the dollars for architecture and engineering contracts under \$500,000. This underutilization is statistically significant.

*Minority Business Enterprises* represent 35.72 percent of the available architecture and engineering firms and received 12.45 percent of the dollars for architecture and engineering contracts under \$500,000. This underutilization is statistically significant.

*Women Business Enterprises* represent 18.30 percent of the available architecture and engineering firms and received 6.06 percent of the dollars for architecture and engineering contracts under \$500,000. This underutilization is statistically significant.

*Minority and Women Business Enterprises* represent 54.02 percent of the available architecture and engineering firms and received 18.51 percent of the dollars for architecture and engineering contracts under \$500,000. This underutilization is statistically significant.

*Non-Minority and Non-Women Business Enterprises* represent 45.98 percent of the available architecture and engineering firms and received 81.49 percent of the dollars for architecture and engineering contracts under \$500,000. This overutilization is statistically significant.



**Table 6.02 Disparity Analysis: Architecture and Engineering Contracts under \$500,000, October 1, 2002 to September 30, 2007**

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8
<b>Ethnicity<sup>^</sup></b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
African Americans	\$1,250,433	3.28%	14.28%	\$5,449,957	-\$4,199,524	0.23	< .05 *
Asian Americans	\$773,028	2.02%	8.18%	\$3,121,572	-\$2,348,544	0.25	< .05 *
Hispanic Americans	\$2,729,333	7.15%	11.86%	\$4,528,837	-\$1,799,504	0.60	< .05 *
Native Americans	\$0	0.00%	1.41%	\$537,320	-\$537,320	0.00	< .05 *
Caucasian Females	\$2,314,957	6.06%	18.30%	\$6,985,156	-\$4,670,200	0.33	< .05 *
Non-Minority Males	\$31,107,535	81.49%	45.98%	\$17,552,444	\$13,555,091	1.77	< .05 †
<b>TOTAL</b>	<b>\$38,175,285</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$38,175,285</b>			
<b>Ethnicity and Gender</b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
African American Females	\$65,935	0.17%	2.82%	\$1,074,639	-\$1,008,705	0.06	< .05 *
African American Males	\$1,184,499	3.10%	11.46%	\$4,375,318	-\$3,190,819	0.27	< .05 *
Asian American Females	\$76,665	0.20%	1.61%	\$614,080	-\$537,414	0.12	< .05 *
Asian American Males	\$696,362	1.82%	6.57%	\$2,507,492	-\$1,811,130	0.28	< .05 *
Hispanic American Females	\$1,279,452	3.35%	2.28%	\$869,946	\$409,506	1.47	**
Hispanic American Males	\$1,449,881	3.80%	9.58%	\$3,658,891	-\$2,209,011	0.40	< .05 *
Native American Females	\$0	0.00%	0.40%	\$153,520	-\$153,520	0.00	----
Native American Males	\$0	0.00%	1.01%	\$383,800	-\$383,800	0.00	< .05 *
Caucasian Females	\$2,314,957	6.06%	18.30%	\$6,985,156	-\$4,670,200	0.33	< .05 *
Non-Minority Males	\$31,107,535	81.49%	45.98%	\$17,552,444	\$13,555,091	1.77	< .05 †
<b>TOTAL</b>	<b>\$38,175,285</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$38,175,285</b>			
<b>Minority and Gender</b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
Minority Females	\$1,422,053	3.73%	7.10%	\$2,712,185	-\$1,290,132	0.52	< .05 *
Minority Males	\$3,330,742	8.72%	28.62%	\$10,925,501	-\$7,594,759	0.30	< .05 *
Caucasian Females	\$2,314,957	6.06%	18.30%	\$6,985,156	-\$4,670,200	0.33	< .05 *
Non-Minority Males	\$31,107,535	81.49%	45.98%	\$17,552,444	\$13,555,091	1.77	< .05 †
<b>TOTAL</b>	<b>\$38,175,285</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$38,175,285</b>			
<b>Minority and Females</b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
Minority Business Enterprises	\$4,752,794	12.45%	35.72%	\$13,637,686	-\$8,884,892	0.35	< .05 *
Women Business Enterprises	\$2,314,957	6.06%	18.30%	\$6,985,156	-\$4,670,200	0.33	< .05 *
<b>Minority and Women Business Enterprises</b>	<b>\$7,067,751</b>	<b>18.51%</b>	<b>54.02%</b>	<b>\$20,622,842</b>	<b>-\$13,555,091</b>	<b>0.34</b>	<b>&lt; .05 *</b>
Non-Minority and Non-Women Business Enterprises	\$31,107,535	81.49%	45.98%	\$17,552,444	\$13,555,091	1.77	< .05 †

( \*) denotes a statistically significant underutilization.

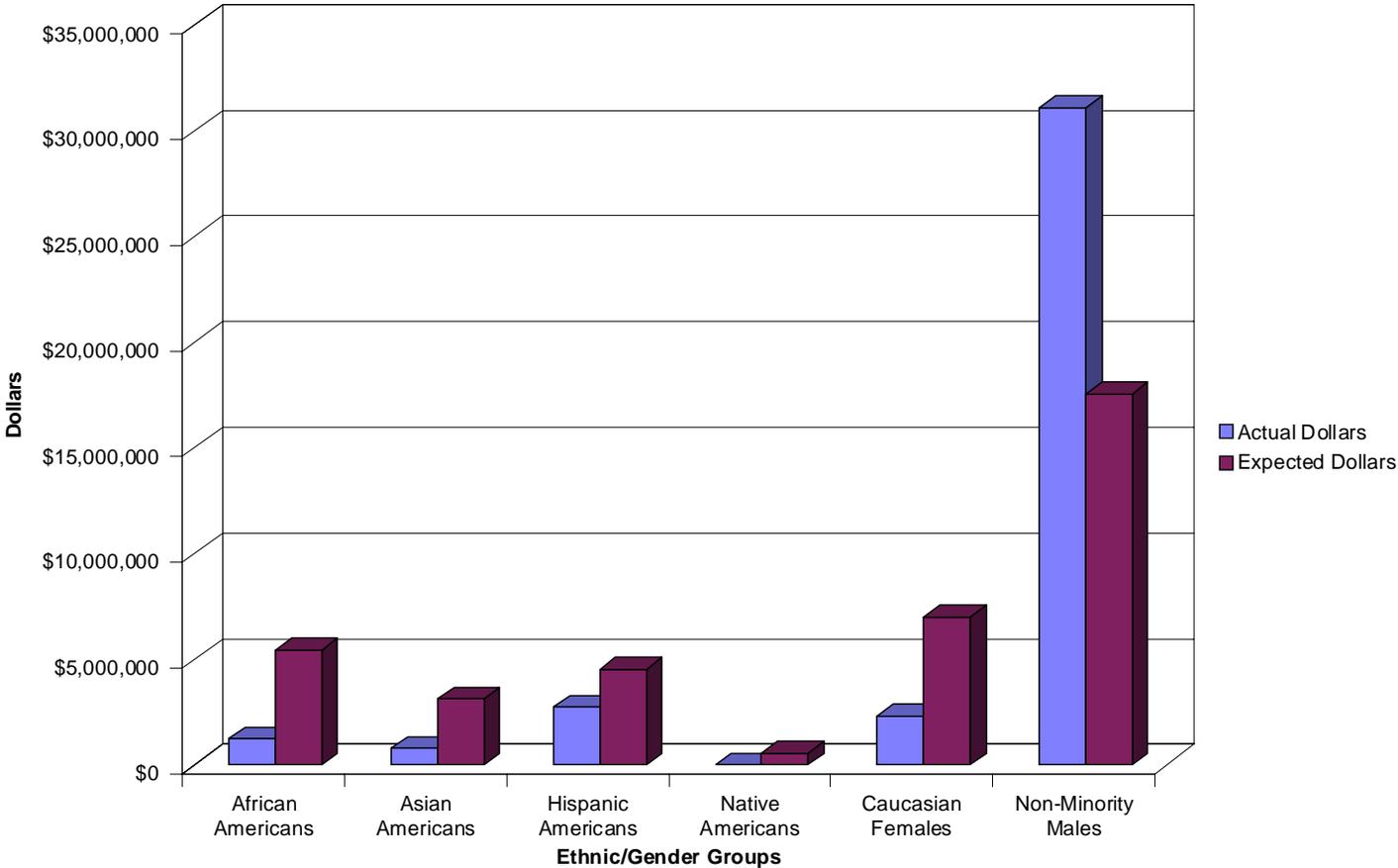
( † ) denotes a statistically significant overutilization.

( \*\* ) this study does not test statistically the overutilization of M/WBEs or the underutilization of Caucasian males.

( ---- ) denotes an underutilized group with too few available firms to test statistical significance.

<sup>^</sup> See Chapter 2: Prime Contractor Utilization Analysis, Table 2.01 for a definition of each ethnic and gender group

**Chart 6.02 Disparity Analysis: Architecture and Engineering Contracts under \$500,000, October 1, 2002 to September 30, 2007**



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### 3. Professional Services Contracts under \$500,000

The disparity analysis of all professional services contracts under \$500,000 is depicted in Table 6.03 and Chart 6.03.

*African American Businesses* represent 20.59 percent of the available professional services firms and received 2.85 percent of the dollars for professional services contracts under \$500,000. This underutilization is statistically significant.

*Asian American Businesses* represent 6.31 percent of the available professional services firms and received 2.03 percent of the dollars for professional services contracts under \$500,000. This underutilization is statistically significant.

*Hispanic American Businesses* represent 8.87 percent of the available professional services firms and received 3.6 percent of the dollars for professional services contracts under \$500,000. This underutilization is statistically significant.

*Native American Businesses* represent 1.02 percent of the available professional services firms and received 0.02 percent of the dollars for professional services contracts under \$500,000. This underutilization is statistically significant.

*Minority Business Enterprises* represent 36.79 percent of the available professional services firms and received 8.5 percent of the dollars for professional services contracts under \$500,000. This underutilization is statistically significant.

*Women Business Enterprises* represent 25.29 percent of the available professional services firms and received 3.41 percent of the dollars for professional services contracts under \$500,000. This underutilization is statistically significant.

*Minority and Women Business Enterprises* represent 62.08 percent of the available professional services firms and received 11.91 percent of the dollars for professional services contracts under \$500,000. This underutilization is statistically significant.

*Non-Minority and Non-Women Business Enterprises* represent 37.92 percent of the available professional services firms and received 88.09 percent of the dollars for professional services contracts under \$500,000. This overutilization is statistically significant.



**Table 6.03 Disparity Analysis: Professional Services Contracts under \$500,000, October 1, 2002 to September 30, 2007**

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8
<b>Ethnicity<sup>^</sup></b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
African Americans	\$1,274,036	2.85%	20.59%	\$9,198,911	-\$7,924,875	0.14	< .05 *
Asian Americans	\$905,383	2.03%	6.31%	\$2,819,904	-\$1,914,521	0.32	< .05 *
Hispanic Americans	\$1,608,195	3.60%	8.87%	\$3,960,642	-\$2,352,448	0.41	< .05 *
Native Americans	\$9,145	0.02%	1.02%	\$456,295	-\$447,150	0.02	< .05 *
Caucasian Females	\$1,521,496	3.41%	25.29%	\$11,297,868	-\$9,776,373	0.13	< .05 *
Non-Minority Males	\$39,353,043	88.09%	37.92%	\$16,937,677	\$22,415,366	2.32	< .05 †
<b>TOTAL</b>	<b>\$44,671,297</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$44,671,297</b>			
<b>Ethnicity and Gender</b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
African American Females	\$240,253	0.54%	9.38%	\$4,188,790	-\$3,948,537	0.06	< .05 *
African American Males	\$1,033,783	2.31%	11.22%	\$5,010,121	-\$3,976,338	0.21	< .05 *
Asian American Females	\$2,720	0.01%	2.02%	\$903,464	-\$900,744	0.00	< .05 *
Asian American Males	\$902,663	2.02%	4.29%	\$1,916,440	-\$1,013,776	0.47	< .05 *
Hispanic American Females	\$215,477	0.48%	3.06%	\$1,368,886	-\$1,153,408	0.16	< .05 *
Hispanic American Males	\$1,392,717	3.12%	5.80%	\$2,591,757	-\$1,199,039	0.54	< .05 *
Native American Females	\$0	0.00%	0.41%	\$182,518	-\$182,518	0.00	----
Native American Males	\$9,145	0.02%	0.61%	\$273,777	-\$264,632	0.03	----
Caucasian Females	\$1,521,496	3.41%	25.29%	\$11,297,868	-\$9,776,373	0.13	< .05 *
Non-Minority Males	\$39,353,043	88.09%	37.92%	\$16,937,677	\$22,415,366	2.32	< .05 †
<b>TOTAL</b>	<b>\$44,671,297</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$44,671,297</b>			
<b>Minority and Gender</b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
Minority Females	\$458,450	1.03%	14.87%	\$6,643,658	-\$6,185,208	0.07	< .05 *
Minority Males	\$3,338,309	7.47%	21.92%	\$9,792,094	-\$6,453,786	0.34	< .05 *
Caucasian Females	\$1,521,496	3.41%	25.29%	\$11,297,868	-\$9,776,373	0.13	< .05 *
Non-Minority Males	\$39,353,043	88.09%	37.92%	\$16,937,677	\$22,415,366	2.32	< .05 †
<b>TOTAL</b>	<b>\$44,671,297</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$44,671,297</b>			
<b>Minority and Females</b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
Minority Business Enterprises	\$3,796,759	8.50%	36.79%	\$16,435,752	-\$12,638,993	0.23	< .05 *
Women Business Enterprises	\$1,521,496	3.41%	25.29%	\$11,297,868	-\$9,776,373	0.13	< .05 *
<b>Minority and Women Business Enterprises</b>	<b>\$5,318,254</b>	<b>11.91%</b>	<b>62.08%</b>	<b>\$27,733,621</b>	<b>-\$22,415,366</b>	<b>0.19</b>	<b>&lt; .05 *</b>
Non-Minority and Non-Women Business Enterprises	\$39,353,043	88.09%	37.92%	\$16,937,677	\$22,415,366	2.32	< .05 †

( \* ) denotes a statistically significant underutilization.

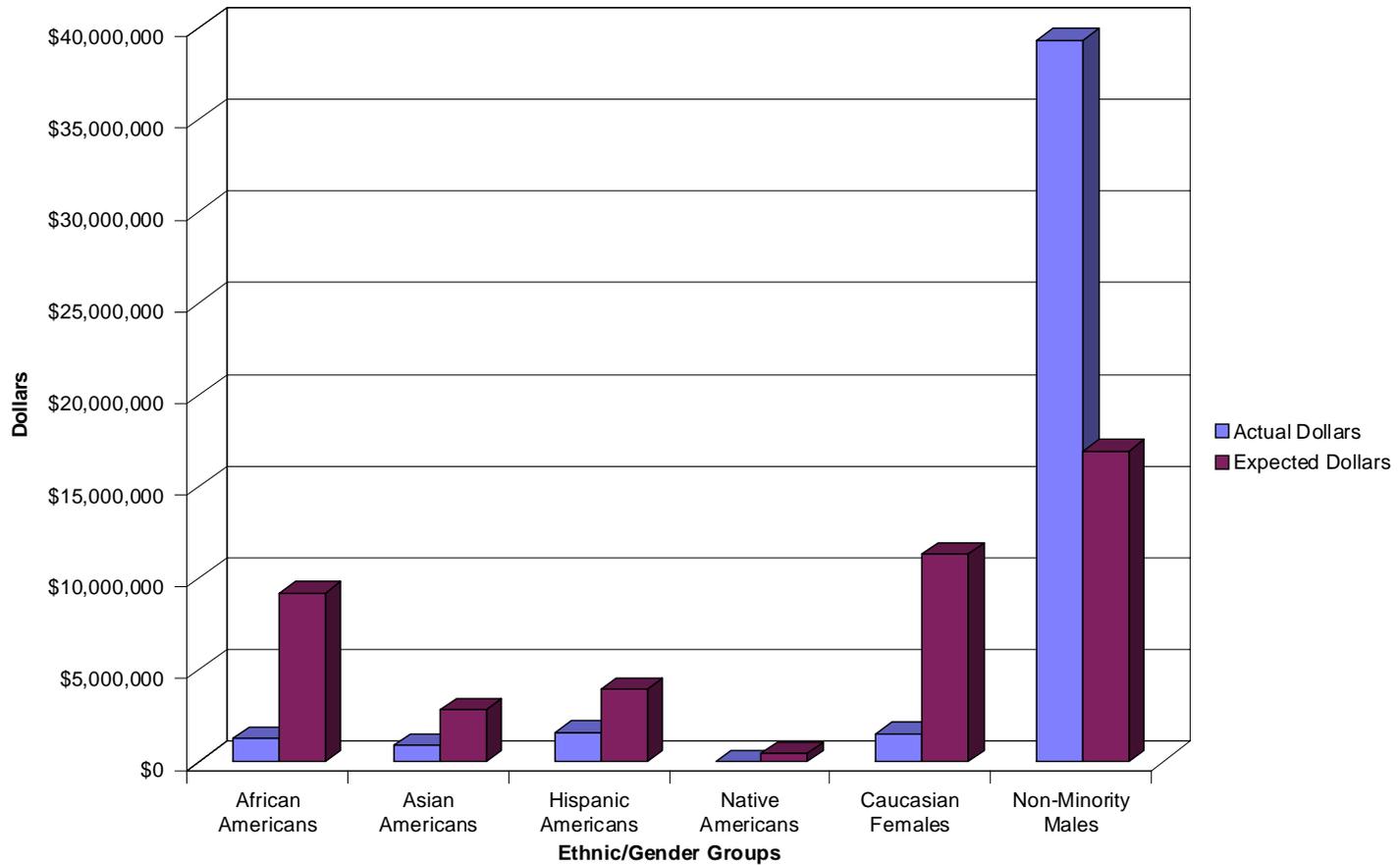
( † ) denotes a statistically significant overutilization.

( \*\* ) this study does not test statistically the overutilization of M/WBEs or the underutilization of Caucasian males.

( ---- ) denotes an underutilized group with too few available firms to test statistical significance.

<sup>^</sup> See Chapter 2: Prime Contractor Utilization Analysis, Table 2.01 for a definition of each ethnic and gender group

**Chart 6.03 Disparity Analysis: Professional Services Contracts under \$500,000, October 1, 2002 to September 30, 2007**



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#### **4. Non-Professional Services Contracts under \$500,000**

The disparity analysis of all non-professional services contracts under \$500,000 is depicted in Table 6.04 and Chart 6.04.

*African American Businesses* represent 19.71 percent of the available non-professional services firms and received 4.41 percent of the dollars for non-professional services contracts under \$500,000. This underutilization is statistically significant.

*Asian American Businesses* represent 3.31 percent of the available non-professional services firms and received 1.22 percent of the dollars for non-professional services contracts under \$500,000. This underutilization is statistically significant.

*Hispanic American Businesses* represent 9.57 percent of the available non-professional services firms and received 3.45 percent of the dollars for non-professional services contracts under \$500,000. This underutilization is statistically significant.

*Native American Businesses* represent 0.87 percent of the available non-professional services firms and received 0.16 percent of the dollars for non-professional services contracts under \$500,000. While this group was underutilized, there were too few available firms to determine statistical significance.

*Minority Business Enterprises* represent 33.46 percent of the available non-professional services firms and received 9.24 percent of the dollars for non-professional services contracts under \$500,000. This underutilization is statistically significant.

*Women Business Enterprises* represent 20.14 percent of the available non-professional services firms and received 6.55 percent of the dollars for non-professional services contracts under \$500,000. This underutilization is statistically significant.

*Minority and Women Business Enterprises* represent 53.6 percent of the available non-professional services firms and received 15.79 percent of the dollars for non-professional services contracts under \$500,000. This underutilization is statistically significant.

*Non-Minority and Non-Women Business Enterprises* represent 46.4 percent of the available non-professional services firms and received 84.21 percent of the dollars for non-professional services contracts under \$500,000. This overutilization is statistically significant.



**Table 6.04 Disparity Analysis: Non-Professional Services Contracts under \$500,000, October 1, 2002 to September 30, 2007**

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8
<b>Ethnicity<sup>^</sup></b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
African Americans	\$5,589,029	4.41%	19.71%	\$24,969,281	-\$19,380,252	0.22	< .05 *
Asian Americans	\$1,545,798	1.22%	3.31%	\$4,190,104	-\$2,644,306	0.37	< .05 *
Hispanic Americans	\$4,372,524	3.45%	9.57%	\$12,118,590	-\$7,746,066	0.36	< .05 *
Native Americans	\$198,566	0.16%	0.87%	\$1,105,938	-\$907,372	0.18	----
Caucasian Females	\$8,302,292	6.55%	20.14%	\$25,514,462	-\$17,212,170	0.33	< .05 *
Non-Minority Males	\$106,676,233	84.21%	46.40%	\$58,786,067	\$47,890,166	1.81	< .05 †
<b>TOTAL</b>	<b>\$126,684,442</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$126,684,442</b>			
<b>Ethnicity and Gender</b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
African American Females	\$2,119,189	1.67%	6.85%	\$8,676,163	-\$6,556,974	0.24	< .05 *
African American Males	\$3,469,840	2.74%	12.86%	\$16,293,118	-\$12,823,277	0.21	< .05 *
Asian American Females	\$40,222	0.03%	1.07%	\$1,355,164	-\$1,314,942	0.03	< .05 *
Asian American Males	\$1,505,575	1.19%	2.24%	\$2,834,940	-\$1,329,365	0.53	< .05 *
Hispanic American Females	\$1,047,957	0.83%	2.93%	\$3,707,229	-\$2,659,272	0.28	< .05 *
Hispanic American Males	\$3,324,567	2.62%	6.64%	\$8,411,361	-\$5,086,794	0.40	< .05 **
Native American Females	\$152,049	0.12%	0.39%	\$498,451	-\$346,402	0.31	----
Native American Males	\$46,517	0.04%	0.48%	\$607,487	-\$560,970	0.08	----
Caucasian Females	\$8,302,292	6.55%	20.14%	\$25,514,462	-\$17,212,170	0.33	< .05 *
Non-Minority Males	\$106,676,233	84.21%	46.40%	\$58,786,067	\$47,890,166	1.81	< .05 †
<b>TOTAL</b>	<b>\$126,684,442</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$126,684,442</b>			
<b>Minority and Gender</b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
Minority Females	\$3,359,417	2.65%	11.24%	\$14,237,007	-\$10,877,590	0.24	< .05 *
Minority Males	\$8,346,500	6.59%	22.22%	\$28,146,906	-\$19,800,406	0.30	< .05 *
Caucasian Females	\$8,302,292	6.55%	20.14%	\$25,514,462	-\$17,212,170	0.33	< .05 *
Non-Minority Males	\$106,676,233	84.21%	46.40%	\$58,786,067	\$47,890,166	1.81	< .05 †
<b>TOTAL</b>	<b>\$126,684,442</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$126,684,442</b>			
<b>Minority and Females</b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
Minority Business Enterprises	\$11,705,917	9.24%	33.46%	\$42,383,913	-\$30,677,997	0.28	< .05 *
Women Business Enterprises	\$8,302,292	6.55%	20.14%	\$25,514,462	-\$17,212,170	0.33	< .05 *
<b>Minority and Women Business Enterprises</b>	<b>\$20,008,209</b>	<b>15.79%</b>	<b>53.60%</b>	<b>\$67,898,375</b>	<b>-\$47,890,166</b>	<b>0.29</b>	<b>&lt; .05 *</b>
Non-Minority and Non-Women Business Enterprises	\$106,676,233	84.21%	46.40%	\$58,786,067	\$47,890,166	1.81	< .05 †

( \*) denotes a statistically significant underutilization.

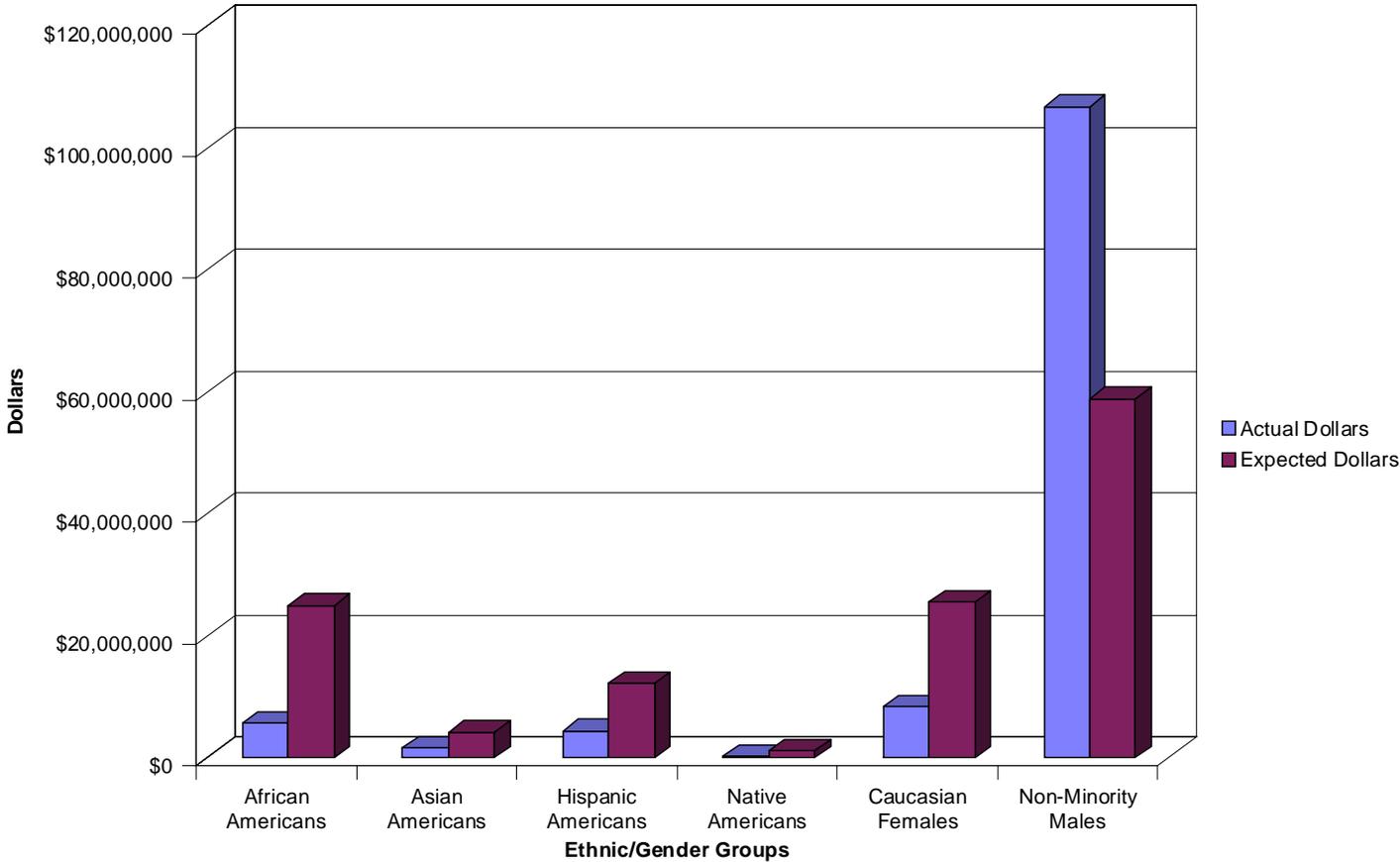
( † ) denotes a statistically significant overutilization.

( \*\* ) this study does not test statistically the overutilization of M/WBEs or the underutilization of Caucasian males.

( ---- ) denotes an underutilized group with too few available firms to test statistical significance.

<sup>^</sup> See Chapter 2: Prime Contractor Utilization Analysis, Table 2.01 for a definition of each ethnic and gender group

**Chart 6.04 Disparity Analysis: Non-Professional Services Contracts under \$500,000, October 1, 2002 to September 30, 2007**



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## 5. Goods Contracts under \$500,000

The disparity analysis of all goods contracts under \$500,000 is depicted in Table 6.05 and Chart 6.05.

***African American Businesses*** represent 13.09 percent of the available goods firms and received 0.12 percent of the dollars for goods contracts under \$500,000. This underutilization is statistically significant.

***Asian American Businesses*** represent 4.4 percent of the available goods firms and received 2.68 percent of the dollars for goods contracts under \$500,000. This underutilization is statistically significant.

***Hispanic American Businesses*** represent 7.47 percent of the available goods firms and received 1.43 percent of the dollars for goods contracts under \$500,000. This underutilization is statistically significant.

***Native American Businesses*** represent 1.61 percent of the available goods firms and received 0.17 percent of the dollars for goods contracts under \$500,000. This underutilization is statistically significant.

***Minority Business Enterprises*** represent 26.57 percent of the available goods firms and received 4.4 percent of the dollars for goods contracts under \$500,000. This underutilization is statistically significant.

***Women Business Enterprises*** represent 20.15 percent of the available goods firms and received 5.16 percent of the dollars for goods contracts under \$500,000. This underutilization is statistically significant.

***Minority and Women Business Enterprises*** represent 46.71 percent of the available goods firms and received 9.56 percent of the dollars for goods contracts under \$500,000. This underutilization is statistically significant.

***Non-Minority and Non-Women Business Enterprises*** represent 53.29 percent of the available goods firms and received 90.44 percent of the dollars for goods contracts under \$500,000. This overutilization is statistically significant.



**Table 6.05 Disparity Analysis: Goods Contracts under \$500,000, October 1, 2002 to September 30, 2007**

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8
<b>Ethnicity<sup>^</sup></b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
African Americans	\$145,259	0.12%	13.09%	\$16,272,915	-\$16,127,656	0.01	< .05 *
Asian Americans	\$3,333,500	2.68%	4.40%	\$5,465,871	-\$2,132,371	0.61	< .05 *
Hispanic Americans	\$1,781,418	1.43%	7.47%	\$9,289,902	-\$7,508,483	0.19	< .05 *
Native Americans	\$207,548	0.17%	1.61%	\$1,995,147	-\$1,787,599	0.10	< .05 *
Caucasian Females	\$6,411,838	5.16%	20.15%	\$25,043,247	-\$18,631,409	0.26	< .05 *
Non-Minority Males	\$112,422,231	90.44%	53.29%	\$66,234,713	\$46,187,518	1.70	< .05 †
<b>TOTAL</b>	<b>\$124,301,794</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$124,301,794</b>			
<b>Ethnicity and Gender</b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
African American Females	\$16,340	0.01%	4.83%	\$6,006,223	-\$5,989,883	0.00	< .05 *
African American Males	\$128,920	0.10%	8.26%	\$10,266,692	-\$10,137,773	0.01	< .05 *
Asian American Females	\$556,367	0.45%	1.40%	\$1,745,753	-\$1,189,386	0.32	< .05 *
Asian American Males	\$2,777,133	2.23%	2.99%	\$3,720,117	-\$942,984	0.75	< .05 *
Hispanic American Females	\$521,739	0.42%	2.36%	\$2,930,372	-\$2,408,632	0.18	< .05 *
Hispanic American Males	\$1,259,679	1.01%	5.12%	\$6,359,530	-\$5,099,851	0.20	< .05 *
Native American Females	\$62,744	0.05%	0.60%	\$748,180	-\$685,436	0.08	----
Native American Males	\$144,803	0.12%	1.00%	\$1,246,967	-\$1,102,163	0.12	< .05 *
Caucasian Females	\$6,411,838	5.16%	20.15%	\$25,043,247	-\$18,631,409	0.26	< .05 *
Non-Minority Males	\$112,422,231	90.44%	53.29%	\$66,234,713	\$46,187,518	1.70	< .05 †
<b>TOTAL</b>	<b>\$124,301,794</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$124,301,794</b>			
<b>Minority and Gender</b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
Minority Females	\$1,157,190	0.93%	9.20%	\$11,430,528	-\$10,273,337	0.10	< .05 *
Minority Males	\$4,310,535	3.47%	17.37%	\$21,593,306	-\$17,282,771	0.20	< .05 *
Caucasian Females	\$6,411,838	5.16%	20.15%	\$25,043,247	-\$18,631,409	0.26	< .05 *
Non-Minority Males	\$112,422,231	90.44%	53.29%	\$66,234,713	\$46,187,518	1.70	< .05 †
<b>TOTAL</b>	<b>\$124,301,794</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$124,301,794</b>			
<b>Minority and Females</b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
Minority Business Enterprises	\$5,467,725	4.40%	26.57%	\$33,023,834	-\$27,556,109	0.17	< .05 *
Women Business Enterprises	\$6,411,838	5.16%	20.15%	\$25,043,247	-\$18,631,409	0.26	< .05 *
<b>Minority and Women Business Enterprises</b>	<b>\$11,879,563</b>	<b>9.56%</b>	<b>46.71%</b>	<b>\$58,067,081</b>	<b>-\$46,187,518</b>	<b>0.20</b>	<b>&lt; .05 *</b>
Non-Minority and Non-Women Business Enterprises	\$112,422,231	90.44%	53.29%	\$66,234,713	\$46,187,518	1.70	< .05 †

( \* ) denotes a statistically significant underutilization.

( † ) denotes a statistically significant overutilization.

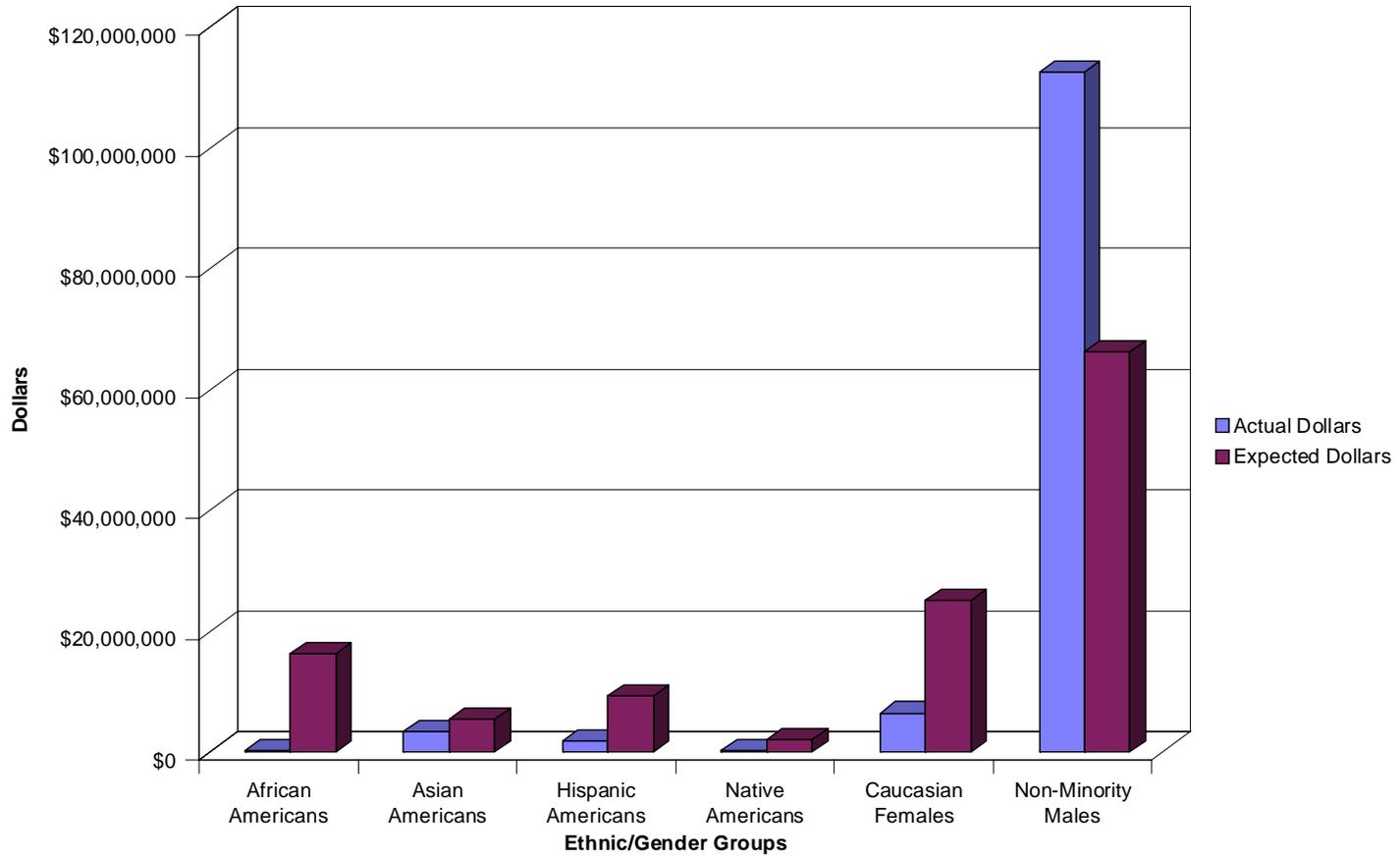
( \*\* ) this study does not test statistically the overutilization of M/WBEs or the underutilization of Caucasian males.

( ---- ) denotes an underutilized group with too few available firms to test statistical significance.

<sup>^</sup> See Chapter 2: Prime Contractor Utilization Analysis, Table 2.01 for a definition of each ethnic and gender group

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**Chart 6.05 Disparity Analysis: Goods Contracts under \$500,000, October 1, 2002 to September 30, 2007**



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## **B. Disparity Analysis: All Contracts \$25,000 and under, by Industry**

### **1. Construction Contracts \$25,000 and under**

The disparity analysis of all construction contracts \$25,000 and under is depicted in Table 6.06 and Chart 6.06.

*African American Businesses* represent 21.7 percent of the available construction firms and received 3.84 percent of the dollars for construction contracts \$25,000 and under. This underutilization is statistically significant.

*Asian American Businesses* represent 3.62 percent of the available construction firms and received 2.79 percent of the dollars for construction contracts \$25,000 and under. This underutilization is not statistically significant.

*Hispanic American Businesses* represent 19.9 percent of the available construction firms and received 9.21 of the dollars for construction contracts \$25,000 and under. This underutilization is statistically significant.

*Native American Businesses* represent 2.3 percent of the available construction firms and received 0.61 percent of the dollars for construction contracts \$25,000 and under. This underutilization is statistically significant.

*Minority Business Enterprises* represent 47.52 percent of the available construction firms and received 16.45 percent of the dollars for construction contracts \$25,000 and under. This underutilization is statistically significant.

*Women Business Enterprises* represent 18.96 percent of the available construction firms and received 16.58 percent of the dollars for construction contracts \$25,000 and under. This underutilization is not statistically significant.

*Minority and Women Business Enterprises* represent 66.48 percent of the available construction firms and received 33.03 percent of the dollars for construction contracts \$25,000 and under. This underutilization is statistically significant.

*Non-Minority and Non-Women Business Enterprises* represent 33.52 percent of the available construction firms and received 66.97 percent of the dollars for construction contracts \$25,000 and under. This overutilization is statistically significant.



**Table 6.06 Disparity Analysis: Construction Contracts \$25,000 and under, October 1, 2002 to September 30, 2007**

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8
<b>Ethnicity<sup>^</sup></b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
African Americans	\$105,852	3.84%	21.70%	\$597,816	-\$491,964	0.18	< .05 *
Asian Americans	\$76,889	2.79%	3.62%	\$99,752	-\$22,864	0.77	not significant
Hispanic Americans	\$253,715	9.21%	19.90%	\$548,289	-\$294,574	0.46	< .05 *
Native Americans	\$16,791	0.61%	2.30%	\$63,479	-\$46,687	0.26	< .05 *
Caucasian Females	\$456,828	16.58%	18.96%	\$522,479	-\$65,650	0.87	not significant
Non-Minority Males	\$1,845,319	66.97%	33.52%	\$923,580	\$921,739	2.00	< .05 †
<b>TOTAL</b>	<b>\$2,755,394</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$2,755,394</b>			
<b>Ethnicity and Gender</b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
African American Females	\$24,930	0.90%	4.43%	\$122,074	-\$97,144	0.20	< .05 *
African American Males	\$80,922	2.94%	17.27%	\$475,742	-\$394,820	0.17	< .05 *
Asian American Females	\$0	0.00%	0.84%	\$23,020	-\$23,020	0.00	----
Asian American Males	\$76,889	2.79%	2.78%	\$76,733	\$156	1.00	**
Hispanic American Females	\$35,000	1.27%	3.57%	\$98,357	-\$63,357	0.36	< .05 *
Hispanic American Males	\$218,715	7.94%	16.33%	\$449,932	-\$231,217	0.49	< .05 *
Native American Females	\$16,791	0.61%	0.78%	\$21,625	-\$4,833	0.78	----
Native American Males	\$0	0.00%	1.52%	\$41,854	-\$41,854	0.00	< .05 *
Caucasian Females	\$456,828	16.58%	18.96%	\$522,479	-\$65,650	0.87	not significant
Non-Minority Males	\$1,845,319	66.97%	33.52%	\$923,580	\$921,739	2.00	< .05 †
<b>TOTAL</b>	<b>\$2,755,394</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$2,755,394</b>			
<b>Minority and Gender</b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
Minority Females	\$76,721	2.78%	9.62%	\$265,076	-\$188,355	0.29	< .05 *
Minority Males	\$376,526	13.67%	37.90%	\$1,044,260	-\$667,734	0.36	< .05 *
Caucasian Females	\$456,828	16.58%	18.96%	\$522,479	-\$65,650	0.87	not significant
Non-Minority Males	\$1,845,319	66.97%	33.52%	\$923,580	\$921,739	2.00	< .05 †
<b>TOTAL</b>	<b>\$2,755,394</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$2,755,394</b>			
<b>Minority and Females</b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
Minority Business Enterprises	\$453,247	16.45%	47.52%	\$1,309,336	-\$856,089	0.35	< .05 *
Women Business Enterprises	\$456,828	16.58%	18.96%	\$522,479	-\$65,650	0.87	not significant
<b>Minority and Women Business Enterprises</b>	<b>\$910,075</b>	<b>33.03%</b>	<b>66.48%</b>	<b>\$1,831,814</b>	<b>-\$921,739</b>	<b>0.50</b>	<b>&lt; .05 *</b>
Non-Minority and Non-Women Business Enterprises	\$1,845,319	66.97%	33.52%	\$923,580	\$921,739	2.00	< .05 †

( \* ) denotes a statistically significant underutilization.

( † ) denotes a statistically significant overutilization.

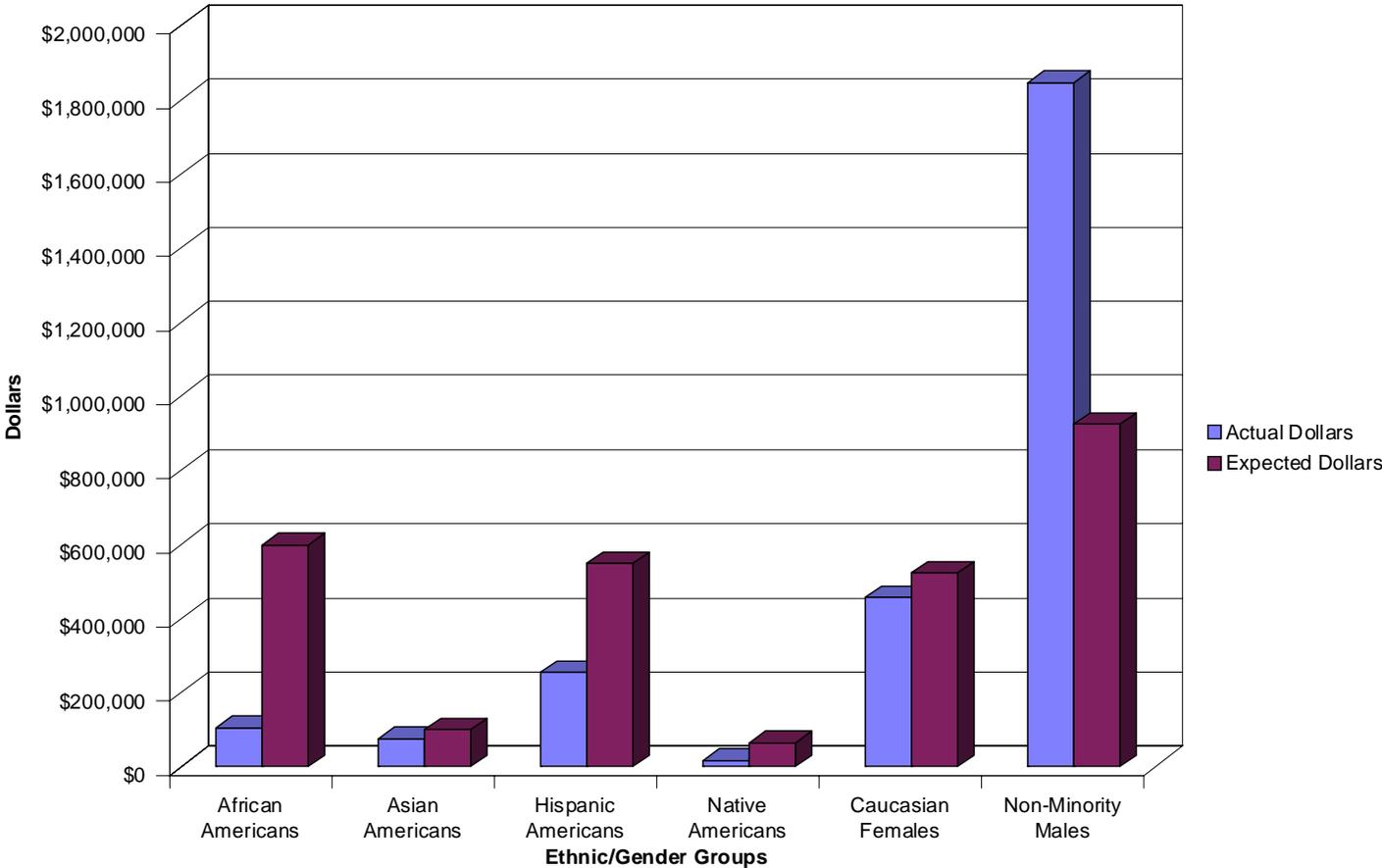
( \*\* ) this study does not test statistically the overutilization of M/WBEs or the underutilization of Caucasian males.

( ---- ) denotes an underutilized group with too few available firms to test statistical significance.

<sup>^</sup> See Chapter 2: Prime Contractor Utilization Analysis, Table 2.01 for a definition of each ethnic and gender group

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**Chart 6.06 Disparity Analysis: Construction Contracts \$25,000 and under, October 1, 2002 to September 30, 2007**



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## **2. Architecture and Engineering Contracts \$25,000 and under**

The disparity analysis of all architecture and engineering contracts \$25,000 and under is depicted in Table 6.07 and Chart 6.07.

*African American Businesses* represent 14.28 percent of the available architecture and engineering firms and received 1.7 percent of the dollars for architecture and engineering contracts \$25,000 and under. This underutilization is statistically significant.

*Asian American Businesses* represent 8.18 percent of the available architecture and engineering firms and received 5.29 percent of the dollars for architecture and engineering contracts \$25,000 and under. This underutilization is not statistically significant.

*Hispanic American Businesses* represent 11.86 percent of the available architecture and engineering firms and received 5.57 of the dollars for architecture and engineering contracts \$25,000 and under. This underutilization is statistically significant.

*Native American Businesses* represent 1.41 percent of the available architecture and engineering firms and received none of the dollars for architecture and engineering contracts \$25,000 and under. This underutilization is statistically significant.

*Minority Business Enterprises* represent 35.72 percent of the available architecture and engineering firms and received 12.56 percent of the dollars for architecture and engineering contracts \$25,000 and under. This underutilization is statistically significant.

*Women Business Enterprises* represent 18.3 percent of the available architecture and engineering firms and received 6.77 percent of the dollars for architecture and engineering contracts \$25,000 and under. This underutilization is statistically significant.

*Minority and Women Business Enterprises* represent 54.02 percent of the available architecture and engineering firms and received 19.33 percent of the dollars for architecture and engineering contracts \$25,000 and under. This underutilization is statistically significant.

*Non-Minority and Non-Women Business Enterprises* represent 45.98 percent of the available architecture and engineering firms and received 80.67 percent of the dollars for architecture and engineering contracts \$25,000 and under. This overutilization is statistically significant.



**Table 6.07 Disparity Analysis: Architecture and Engineering Contracts \$25,000 and under,  
October 1, 2002 to September 30, 2007**

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8
<b>Ethnicity<sup>^</sup></b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
African Americans	\$51,321	1.70%	14.28%	\$431,010	-\$379,688	0.12	< .05 *
Asian Americans	\$159,745	5.29%	8.18%	\$246,869	-\$87,125	0.65	not significant
Hispanic Americans	\$168,103	5.57%	11.86%	\$358,163	-\$190,060	0.47	< .05 *
Native Americans	\$0	0.00%	1.41%	\$42,494	-\$42,494	0.00	< .05 *
Caucasian Females	\$204,536	6.77%	18.30%	\$552,421	-\$347,885	0.37	< .05 *
Non-Minority Males	\$2,435,386	80.67%	45.98%	\$1,388,134	\$1,047,252	1.75	< .05 †
<b>TOTAL</b>	<b>\$3,019,091</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$3,019,091</b>			
<b>Ethnicity and Gender</b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
African American Females	\$15,361	0.51%	2.82%	\$84,988	-\$69,627	0.18	< .05 *
African American Males	\$35,960	1.19%	11.46%	\$346,022	-\$310,062	0.10	< .05 *
Asian American Females	\$12,000	0.40%	1.61%	\$48,564	-\$36,564	0.25	not significant
Asian American Males	\$147,745	4.89%	6.57%	\$198,305	-\$50,560	0.75	not significant
Hispanic American Females	\$95,336	3.16%	2.28%	\$68,800	\$26,536	1.39	**
Hispanic American Males	\$72,767	2.41%	9.58%	\$289,363	-\$216,596	0.25	< .05 *
Native American Females	\$0	0.00%	0.40%	\$12,141	-\$12,141	0.00	----
Native American Males	\$0	0.00%	1.01%	\$30,353	-\$30,353	0.00	not significant
Caucasian Females	\$204,536	6.77%	18.30%	\$552,421	-\$347,885	0.37	< .05 *
Non-Minority Males	\$2,435,386	80.67%	45.98%	\$1,388,134	\$1,047,252	1.75	< .05 †
<b>TOTAL</b>	<b>\$3,019,091</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$3,019,091</b>			
<b>Minority and Gender</b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
Minority Females	\$122,697	4.06%	7.10%	\$214,493	-\$91,796	0.57	< .05 *
Minority Males	\$256,472	8.50%	28.62%	\$864,043	-\$607,571	0.30	< .05 *
Caucasian Females	\$204,536	6.77%	18.30%	\$552,421	-\$347,885	0.37	< .05 *
Non-Minority Males	\$2,435,386	80.67%	45.98%	\$1,388,134	\$1,047,252	1.75	< .05 †
<b>TOTAL</b>	<b>\$3,019,091</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$3,019,091</b>			
<b>Minority and Females</b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
Minority Business Enterprises	\$379,169	12.56%	35.72%	\$1,078,536	-\$699,367	0.35	< .05 *
Women Business Enterprises	\$204,536	6.77%	18.30%	\$552,421	-\$347,885	0.37	< .05 *
<b>Minority and Women Business Enterprises</b>	<b>\$583,705</b>	<b>19.33%</b>	<b>54.02%</b>	<b>\$1,630,957</b>	<b>-\$1,047,252</b>	<b>0.36</b>	<b>&lt; .05 *</b>
Non-Minority and Non-Women Business Enterprises	\$2,435,386	80.67%	45.98%	\$1,388,134	\$1,047,252	1.75	< .05 †

( \* ) denotes a statistically significant underutilization.

( † ) denotes a statistically significant overutilization.

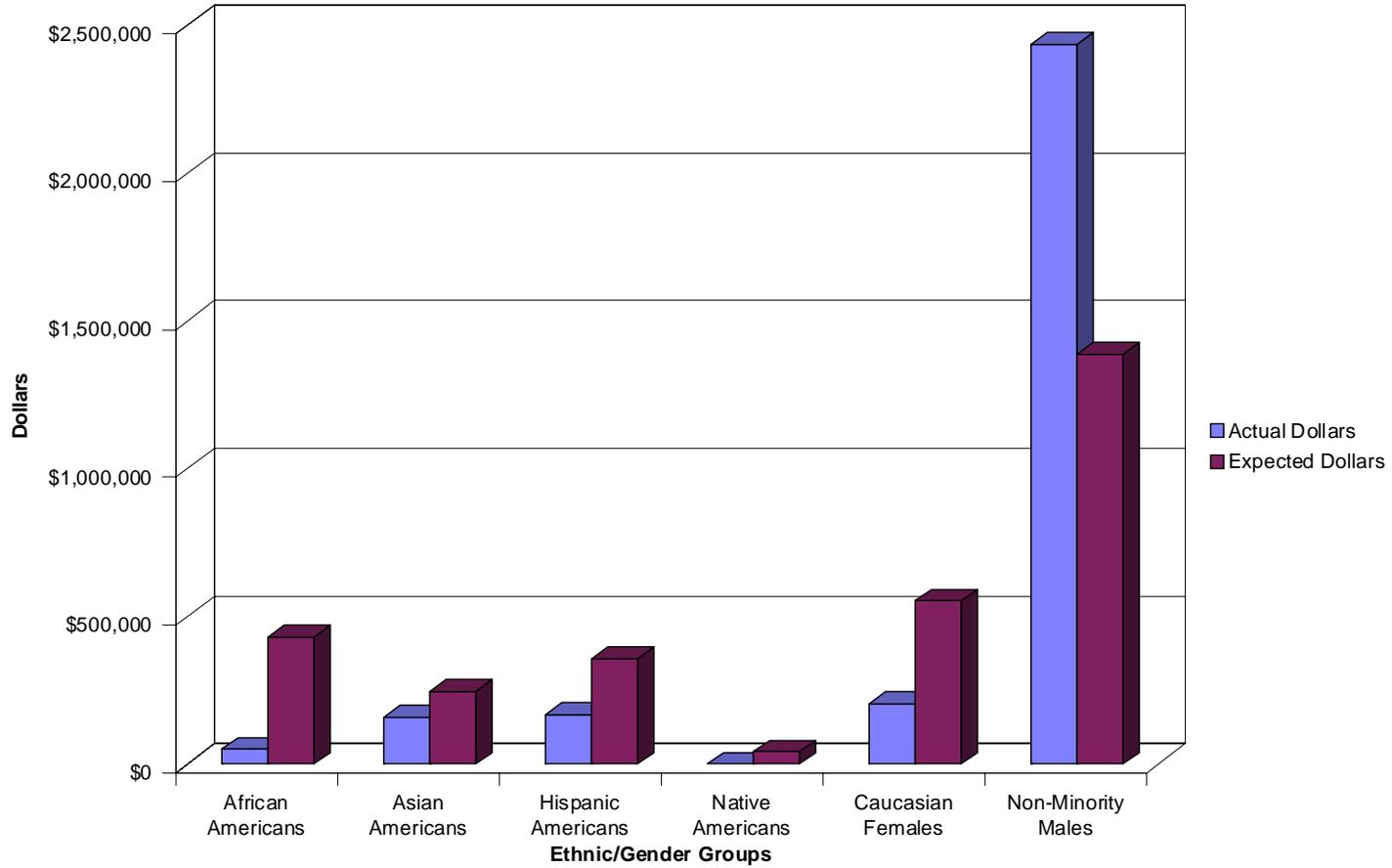
( \*\* ) this study does not test statistically the overutilization of M/WBEs or the underutilization of Caucasian males.

( ---- ) denotes an underutilized group with too few available firms to test statistical significance.

<sup>^</sup> See Chapter 2: Prime Contractor Utilization Analysis, Table 2.01 for a definition of each ethnic and gender group

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**Chart 6.07 Disparity Analysis: Architecture and Engineering Contracts \$25,000 and under, October 1, 2002 to September 30, 2007**



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### **3. Professional Services Contracts \$25,000 and under**

The disparity analysis of all professional services contracts \$25,000 and under is depicted in Table 6.08 and Chart 6.08.

*African American Businesses* represent 20.59 percent of the available professional services firms and received 3.58 percent of the dollars for professional services contracts \$25,000 and under. This underutilization is statistically significant.

*Asian American Businesses* represent 6.31 percent of the available professional services firms and received 0.7 percent of the dollars for professional services contracts \$25,000 and under. This underutilization is statistically significant.

*Hispanic American Businesses* represent 8.87 percent of the available professional services firms and received 1.99 percent of the dollars for professional services contracts \$25,000 and under. This underutilization is statistically significant.

*Native American Businesses* represent 1.02 percent of the available professional services firms and received 0.08 percent of the dollars for professional services contracts \$25,000 and under. This underutilization is statistically significant.

*Minority Business Enterprises* represent 36.79 percent of the available professional services firms and received 6.35 percent of the dollars for professional services contracts \$25,000 and under. This underutilization is statistically significant.

*Women Business Enterprises* represent 25.29 percent of the available professional services firms and received 3.28 percent of the dollars for professional services contracts \$25,000 and under. This underutilization is statistically significant.

*Minority and Women Business Enterprises* represent 62.08 percent of the available professional services firms and received 9.63 percent of the dollars for professional services contracts \$25,000 and under. This underutilization is statistically significant.

*Non-Minority and Non-Women Business Enterprises* represent 37.92 percent of the available professional services firms and received 90.37 percent of the dollars for professional services contracts \$25,000 and under. This is statistically significant.



**Table 6.08 Disparity Analysis: Professional Services Contracts \$25,000 and under, October 1, 2002 to September 30, 2007**

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8
<b>Ethnicity^</b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
African Americans	\$415,330	3.58%	20.59%	\$2,392,129	-\$1,976,799	0.17	< .05 *
Asian Americans	\$81,805	0.70%	6.31%	\$733,301	-\$651,496	0.11	< .05 *
Hispanic Americans	\$231,719	1.99%	8.87%	\$1,029,944	-\$798,226	0.22	< .05 *
Native Americans	\$9,145	0.08%	1.02%	\$118,657	-\$109,512	0.08	< .05 *
Caucasian Females	\$380,900	3.28%	25.29%	\$2,937,952	-\$2,557,052	0.13	< .05 *
Non-Minority Males	\$10,497,640	90.37%	37.92%	\$4,404,555	\$6,093,085	2.38	< .05 †
<b>TOTAL</b>	<b>\$11,616,539</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$11,616,539</b>			
<b>Ethnicity and Gender</b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
African American Females	\$160,340	1.38%	9.38%	\$1,089,273	-\$928,933	0.15	< .05 *
African American Males	\$254,990	2.20%	11.22%	\$1,302,856	-\$1,047,866	0.20	< .05 *
Asian American Females	\$2,720	0.02%	2.02%	\$234,941	-\$232,221	0.01	< .05 *
Asian American Males	\$79,085	0.68%	4.29%	\$498,360	-\$419,275	0.16	< .05 *
Hispanic American Females	\$36,945	0.32%	3.06%	\$355,972	-\$319,027	0.10	< .05 *
Hispanic American Males	\$194,774	1.68%	5.80%	\$673,973	-\$479,199	0.29	< .05 *
Native American Females	\$0	0.00%	0.41%	\$47,463	-\$47,463	0.00	----
Native American Males	\$9,145	0.08%	0.61%	\$71,194	-\$62,049	0.13	----
Caucasian Females	\$380,900	3.28%	25.29%	\$2,937,952	-\$2,557,052	0.13	< .05 *
Non-Minority Males	\$10,497,640	90.37%	37.92%	\$4,404,555	\$6,093,085	2.38	< .05 †
<b>TOTAL</b>	<b>\$11,616,539</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$11,616,539</b>			
<b>Minority and Gender</b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
Minority Females	\$200,005	1.72%	14.87%	\$1,727,649	-\$1,527,644	0.12	< .05 *
Minority Males	\$537,994	4.63%	21.92%	\$2,546,383	-\$2,008,389	0.21	< .05 *
Caucasian Females	\$380,900	3.28%	25.29%	\$2,937,952	-\$2,557,052	0.13	< .05 *
Non-Minority Males	\$10,497,640	90.37%	37.92%	\$4,404,555	\$6,093,085	2.38	< .05 †
<b>TOTAL</b>	<b>\$11,616,539</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$11,616,539</b>			
<b>Minority and Females</b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
Minority Business Enterprises	\$737,999	6.35%	36.79%	\$4,274,032	-\$3,536,033	0.17	< .05 *
Women Business Enterprises	\$380,900	3.28%	25.29%	\$2,937,952	-\$2,557,052	0.13	< .05 *
<b>Minority and Women Business Enterprises</b>	<b>\$1,118,899</b>	<b>9.63%</b>	<b>62.08%</b>	<b>\$7,211,984</b>	<b>-\$6,093,085</b>	<b>0.16</b>	<b>&lt; .05 *</b>
Non-Minority and Non-Women Business Enterprises	\$10,497,640	90.37%	37.92%	\$4,404,555	\$6,093,085	2.38	< .05 †

( \* ) denotes a statistically significant underutilization.

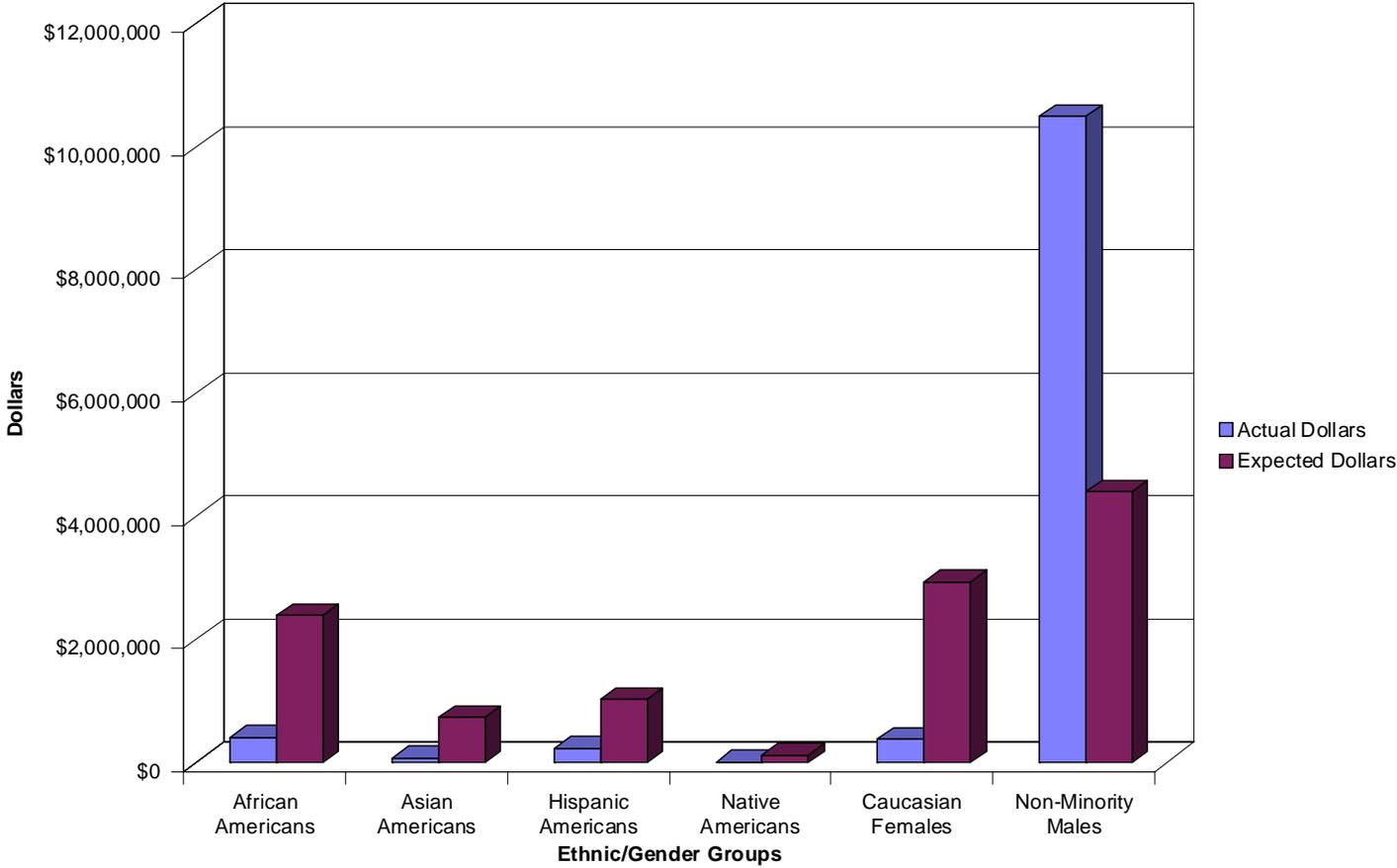
( † ) denotes a statistically significant overutilization.

( \*\* ) this study does not test statistically the overutilization of M/WBEs or the underutilization of Caucasian males.

( ---- ) denotes an underutilized group with too few available firms to test statistical significance.

^ See Chapter 2: Prime Contractor Utilization Analysis, Table 2.01 for a definition of each ethnic and gender group

**Chart 6.08 Disparity Analysis: Professional Services Contracts \$25,000 and under, October 1, 2002 to September 30, 2007**



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#### **4. Non-Professional Services Contracts \$25,000 and under**

The disparity analysis of all non-professional services contracts \$25,000 and under is depicted in Table 6.09 and Chart 6.09.

*African American Businesses* represent 19.71 percent of the available non-professional services firms and received 2.02 percent of the dollars for non-professional services contracts \$25,000 and under. This underutilization is statistically significant.

*Asian American Businesses* represent 3.31 percent of the available non-professional services firms and received 1.39 percent of the dollars for non-professional services contracts \$25,000 and under. This underutilization is statistically significant.

*Hispanic American Businesses* represent 9.57 percent of the available non-professional services firms and received 4.57 percent of the dollars for non-professional services contracts \$25,000 and under. This underutilization is statistically significant.

*Native American Businesses* represent 0.87 percent of the available non-professional services firms and received 0.19 percent of the dollars for non-professional services contracts \$25,000 and under. While this group was underutilized, there were too few available firms to determine statistical significance.

*Minority Business Enterprises* represent 33.46 percent of the available non-professional services firms and received 8.17 percent of the dollars for non-professional services contracts \$25,000 and under. This underutilization is statistically significant.

*Women Business Enterprises* represent 20.14 percent of the available non-professional services firms and received 6.52 percent of the dollars for non-professional services contracts \$25,000 and under. This underutilization is statistically significant.

*Minority and Women Business Enterprises* represent 53.6 percent of the available non-professional services firms and received 14.69 percent of the dollars for non-professional services contracts \$25,000 and under. This underutilization is statistically significant.

*Non-Minority and Non-Women Business Enterprises* represent 46.4 percent of the available non-professional services firms and received 85.31 percent of the dollars for non-professional services contracts \$25,000 and under. This overutilization is statistically significant.



**Table 6.09 Disparity Analysis: Non-Professional Services Contracts \$25,000 and under, October 1, 2002 to September 30, 2007**

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8
<b>Ethnicity^</b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
African Americans	\$550,563	2.02%	19.71%	\$5,368,959	-\$4,818,396	0.10	< .05 *
Asian Americans	\$378,170	1.39%	3.31%	\$900,967	-\$522,797	0.42	< .05 *
Hispanic Americans	\$1,245,028	4.57%	9.57%	\$2,605,771	-\$1,360,743	0.48	< .05 *
Native Americans	\$52,342	0.19%	0.87%	\$237,802	-\$185,460	0.22	----
Caucasian Females	\$1,776,221	6.52%	20.14%	\$5,486,186	-\$3,709,964	0.32	< .05 *
Non-Minority Males	\$23,237,692	85.31%	46.40%	\$12,640,332	\$10,597,360	1.84	< .05 †
<b>TOTAL</b>	<b>\$27,240,017</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$27,240,017</b>			
<b>Ethnicity and Gender</b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
African American Females	\$106,488	0.39%	6.85%	\$1,865,571	-\$1,759,083	0.06	< .05 *
African American Males	\$444,075	1.63%	12.86%	\$3,503,388	-\$3,059,313	0.13	< .05 *
Asian American Females	\$40,222	0.15%	1.07%	\$291,391	-\$251,169	0.14	< .05 *
Asian American Males	\$337,948	1.24%	2.24%	\$609,576	-\$271,628	0.55	< .05 *
Hispanic American Females	\$64,824	0.24%	2.93%	\$797,138	-\$732,314	0.08	< .05 *
Hispanic American Males	\$1,180,204	4.33%	6.64%	\$1,808,633	-\$628,429	0.65	< .05 *
Native American Females	\$5,825	0.02%	0.39%	\$107,178	-\$101,353	0.05	----
Native American Males	\$46,517	0.17%	0.48%	\$130,623	-\$84,106	0.36	----
Caucasian Females	\$1,776,221	6.52%	20.14%	\$5,486,186	-\$3,709,964	0.32	< .05 *
Non-Minority Males	\$23,237,692	85.31%	46.40%	\$12,640,332	\$10,597,360	1.84	< .05 †
<b>TOTAL</b>	<b>\$27,240,017</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$27,240,017</b>			
<b>Minority and Gender</b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
Minority Females	\$217,359	0.80%	11.24%	\$3,061,278	-\$2,843,919	0.07	< .05 *
Minority Males	\$2,008,745	7.37%	22.22%	\$6,052,221	-\$4,043,476	0.33	< .05 *
Caucasian Females	\$1,776,221	6.52%	20.14%	\$5,486,186	-\$3,709,964	0.32	< .05 *
Non-Minority Males	\$23,237,692	85.31%	46.40%	\$12,640,332	\$10,597,360	1.84	< .05 †
<b>TOTAL</b>	<b>\$27,240,017</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$27,240,017</b>			
<b>Minority and Females</b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
Minority Business Enterprises	\$2,226,103	8.17%	33.46%	\$9,113,499	-\$6,887,395	0.24	< .05 *
Women Business Enterprises	\$1,776,221	6.52%	20.14%	\$5,486,186	-\$3,709,964	0.32	< .05 *
<b>Minority and Women Business Enterprises</b>	<b>\$4,002,325</b>	<b>14.69%</b>	<b>53.60%</b>	<b>\$14,599,684</b>	<b>-\$10,597,360</b>	<b>0.27</b>	<b>&lt; .05 *</b>
Non-Minority and Non-Women Business Enterprises	\$23,237,692	85.31%	46.40%	\$12,640,332	\$10,597,360	1.84	< .05 †

( \* ) denotes a statistically significant underutilization.

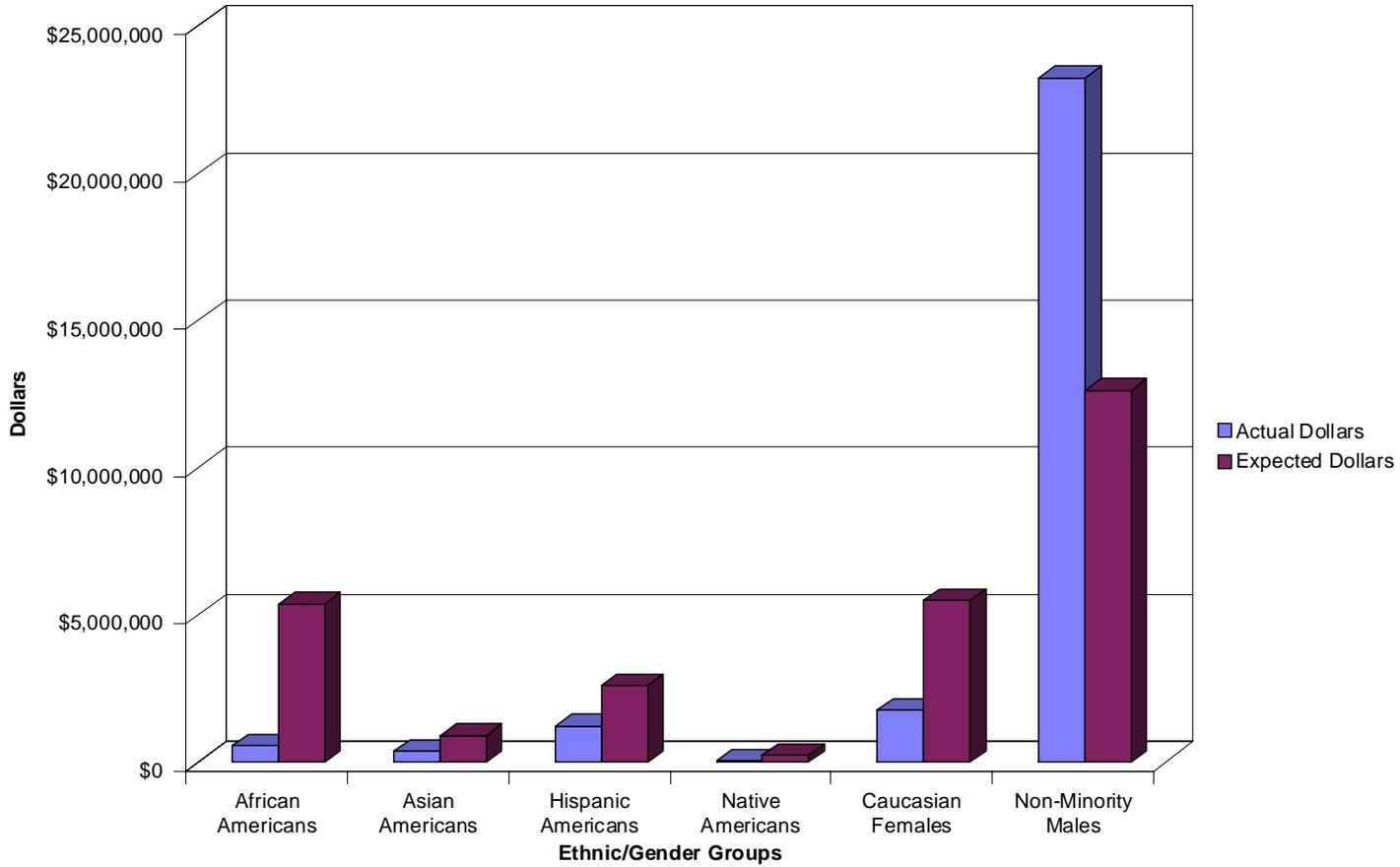
( † ) denotes a statistically significant overutilization.

( \*\* ) this study does not test statistically the overutilization of M/WBEs or the underutilization of Caucasian males.

( ---- ) denotes an underutilized group with too few available firms to test statistical significance.

^ See Chapter 2: Prime Contractor Utilization Analysis, Table 2.01 for a definition of each ethnic and gender group

**Chart 6.09 Disparity Analysis: Non-Professional Services Contracts \$25,000 and under, October 1, 2002 to September 30, 2007**



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## 5. Goods Contracts \$25,000 and under

The disparity analysis of all goods contracts \$25,000 and under is depicted in Table 6.10 and Chart 6.10.

***African American Businesses*** represent 13.09 percent of the available goods firms and received 0.54 percent of the dollars for goods contracts \$25,000 and under. This underutilization is statistically significant.

***Asian American Businesses*** represent 4.4 percent of the available goods firms and received 0.92 percent of the dollars for goods contracts \$25,000 and under. This underutilization is statistically significant.

***Hispanic American Businesses*** represent 7.47 percent of the available goods firms and received 0.95 percent of the dollars for goods contracts \$25,000 and under. This underutilization is statistically significant.

***Native American Businesses*** represent 1.61 percent of the available goods firms and received 0.37 percent of the dollars for goods contracts \$25,000 and under. This underutilization is statistically significant.

***Minority Business Enterprises*** represent 26.57 percent of the available goods firms and received 2.78 percent of the dollars for goods contracts \$25,000 and under. This underutilization is statistically significant.

***Women Business Enterprises*** represent 20.15 percent of the available goods firms and received 8.43 percent of the dollars for goods contracts \$25,000 and under. This underutilization is statistically significant.

***Minority and Women Business Enterprises*** represent 46.71 percent of the available goods firms and received 11.21 percent of the dollars for goods contracts \$25,000 and under. This underutilization is statistically significant.

***Non-Minority and Non-Women Business Enterprises*** represent 53.29 percent of the available goods firms and received 88.79 percent of the dollars for goods contracts \$25,000 and under. This overutilization is statistically significant.



**Table 6.10 Disparity Analysis: Goods Contracts \$25,000 and under, October 1, 2002 to September 30, 2007**

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8
<b>Ethnicity<sup>^</sup></b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
African Americans	\$145,259	0.54%	13.09%	\$3,509,131	-\$3,363,872	0.04	< .05 *
Asian Americans	\$246,895	0.92%	4.40%	\$1,178,674	-\$931,779	0.21	< .05 *
Hispanic Americans	\$255,832	0.95%	7.47%	\$2,003,297	-\$1,747,465	0.13	< .05 *
Native Americans	\$97,911	0.37%	1.61%	\$430,238	-\$332,328	0.23	< .05 *
Caucasian Females	\$2,258,609	8.43%	20.15%	\$5,400,387	-\$3,141,778	0.42	< .05 *
Non-Minority Males	\$23,800,238	88.79%	53.29%	\$14,283,016	\$9,517,222	1.67	< .05 †
<b>TOTAL</b>	<b>\$26,804,744</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$26,804,744</b>			
<b>Ethnicity and Gender</b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
African American Females	\$16,340	0.06%	4.83%	\$1,295,197	-\$1,278,857	0.01	< .05 *
African American Males	\$128,920	0.48%	8.26%	\$2,213,935	-\$2,085,015	0.06	< .05 *
Asian American Females	\$56,706	0.21%	1.40%	\$376,459	-\$319,752	0.15	< .05 *
Asian American Males	\$190,189	0.71%	2.99%	\$802,215	-\$612,026	0.24	< .05 *
Hispanic American Females	\$52,839	0.20%	2.36%	\$631,913	-\$579,073	0.08	< .05 *
Hispanic American Males	\$202,993	0.76%	5.12%	\$1,371,385	-\$1,168,392	0.15	< .05 *
Native American Females	\$62,744	0.23%	0.60%	\$161,339	-\$98,595	0.39	----
Native American Males	\$35,166	0.13%	1.00%	\$268,899	-\$233,733	0.13	< .05 *
Caucasian Females	\$2,258,609	8.43%	20.15%	\$5,400,387	-\$3,141,778	0.42	< .05 *
Non-Minority Males	\$23,800,238	88.79%	53.29%	\$14,283,016	\$9,517,222	1.67	< .05 †
<b>TOTAL</b>	<b>\$26,804,744</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$26,804,744</b>			
<b>Minority and Gender</b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
Minority Females	\$188,630	0.70%	9.20%	\$2,464,907	-\$2,276,277	0.08	< .05 *
Minority Males	\$557,267	2.08%	17.37%	\$4,656,433	-\$4,099,166	0.12	< .05 *
Caucasian Females	\$2,258,609	8.43%	20.15%	\$5,400,387	-\$3,141,778	0.42	< .05 *
Non-Minority Males	\$23,800,238	88.79%	53.29%	\$14,283,016	\$9,517,222	1.67	< .05 †
<b>TOTAL</b>	<b>\$26,804,744</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$26,804,744</b>			
<b>Minority and Females</b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
Minority Business Enterprises	\$745,897	2.78%	26.57%	\$7,121,341	-\$6,375,444	0.10	< .05 *
Women Business Enterprises	\$2,258,609	8.43%	20.15%	\$5,400,387	-\$3,141,778	0.42	< .05 *
<b>Minority and Women Business Enterprises</b>	<b>\$3,004,506</b>	<b>11.21%</b>	<b>46.71%</b>	<b>\$12,521,728</b>	<b>-\$9,517,222</b>	<b>0.24</b>	<b>&lt; .05 *</b>
Non-Minority and Non-Women Business Enterprises	\$23,800,238	88.79%	53.29%	\$14,283,016	\$9,517,222	1.67	< .05 †

( \* ) denotes a statistically significant underutilization.

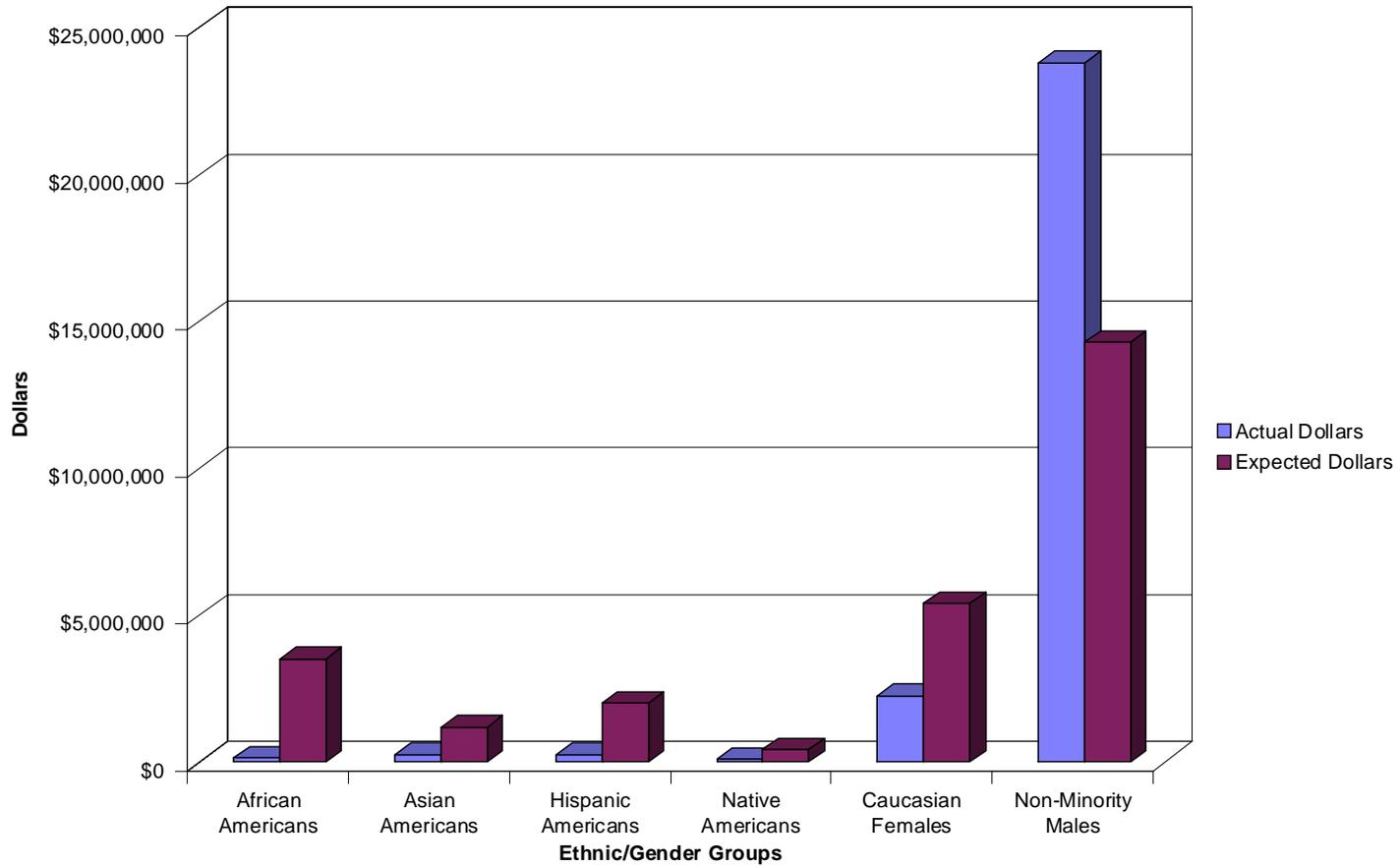
( † ) denotes a statistically significant overutilization.

( \*\* ) this study does not test statistically the overutilization of M/WBEs or the underutilization of Caucasian males.

( ---- ) denotes an underutilized group with too few available firms to test statistical significance.

<sup>^</sup> See Chapter 2: Prime Contractor Utilization Analysis, Table 2.01 for a definition of each ethnic and gender group

**Chart 6.10 Disparity Analysis: Goods Contracts \$25,000 and under, October 1, 2002 to September 30, 2007**



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**III. SUMMARY**

**A. Construction Contracts**

As indicated in Table 6.11, African American, Hispanic American, and Native American Business Enterprises construction contractors were determined to be underutilized at both the informal and formal contract levels. Asian Americans and Women Business Enterprises were underutilized at the formal contract level.

**Table 6.11 Disparity Summary: Construction Contract Dollars, October 1, 2002 to September 30, 2007**

Ethnicity/Gender	Construction	
	Contracts under \$500,000	Contracts \$25,000 and under
African Americans	Yes	Yes
Asian Americans	Yes	No
Hispanic Americans	Yes	Yes
Native Americans	Yes	Yes
Minority Business Enterprises	Yes	Yes
Women Business Enterprises	Yes	No
Minority and Women Business Enterprises	Yes	Yes

Yes = Statistically significant disparity was found.  
 No = Statistically significant disparity was not found.



## **B. Architecture and Engineering Contracts**

As indicated in Table 6.12, African American, Hispanic American, and Native American architecture and engineering contractors were determined to be underutilized at both the informal and formal contract levels. Asian Americans were underutilized at the formal contract level. Women Business Enterprises were underutilized at both the informal and formal contract levels.

**Table 6.12 Disparity Summary: Architecture and Engineering Contract Dollars, October 1, 2002 to September 30, 2007**

Ethnicity/Gender	Architecture and Engineering	
	Contracts under \$500,000	Contracts \$25,000 and under
African Americans	Yes	Yes
Asian Americans	Yes	No
Hispanic Americans	Yes	Yes
Native Americans	Yes	Yes
Minority Business Enterprises	Yes	Yes
Women Business Enterprises	Yes	Yes
Minority and Women Business Enterprises	Yes	Yes

Yes = Statistically significant disparity was found.

No = Statistically significant disparity was not found.



### **C. Professional Services Contracts**

As indicated in Table 6.13, African American, Asian American, Hispanic American, and Native American Business Enterprises professional services contractors were determined to be underutilized at both the informal and formal contract levels. Women Business Enterprises were also underutilized at both the informal and formal contract levels.

**Table 6.13 Disparity Summary: Professional Services  
Contract Dollars, October 1, 2002 to September 30, 2007**

Ethnicity/Gender	Professional Services	
	Contracts under \$500,000	Contracts \$25,000 and under
African Americans	Yes	Yes
Asian Americans	Yes	Yes
Hispanic Americans	Yes	Yes
Native Americans	Yes	Yes
Minority Business Enterprises	Yes	Yes
Women Business Enterprises	Yes	Yes
Minority and Women Business Enterprises	Yes	Yes

Yes = Statistically significant disparity was found.

No = Statistically significant disparity was not found.



## **D. Non-Professional Services Contracts**

As indicated in Table 6.14, African American, Asian American, and Hispanic American non-professional services contractors were determined to be underutilized at both the informal and formal contract levels. Women Business Enterprises were also underutilized at both the informal and formal contract levels.

**Table 6.14 Disparity Summary: Non-Professional Services Contract Dollars, October 1, 2002 to September 30, 2007**

Ethnicity/Gender	Non-Professional Services	
	Contracts under \$500,000	Contracts \$25,000 and under
African Americans	Yes	Yes
Asian Americans	Yes	Yes
Hispanic Americans	Yes	Yes
Native Americans	---	---
Minority Business Enterprises	Yes	Yes
Women Business Enterprises	Yes	Yes
Minority and Women Business Enterprises	Yes	Yes

Yes = Statistically significant disparity was found.

No = Statistically significant disparity was not found.

--- = There were insufficient records to determine statistical disparity.



**E. Goods Contracts**

As indicated in Table 6.15, African American, Asian American, Hispanic American, and Native American goods contractors were determined to be underutilized at both the informal and formal contract levels. Women Business Enterprises were also underutilized at both the informal and formal contract levels.

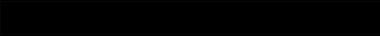
**Table 6.15 Disparity Summary: Goods Contract Dollars, October 1, 2002 to September 30, 2007**

Ethnicity/Gender	Goods	
	Contracts under \$500,000	Contracts \$25,000 and under
African Americans	Yes	Yes
Asian Americans	Yes	Yes
Hispanic Americans	Yes	Yes
Native Americans	Yes	Yes
Minority Business Enterprises	Yes	Yes
Women Business Enterprises	Yes	Yes
Minority and Women Business Enterprises	Yes	Yes

Yes = Statistically significant disparity was found.  
 No = Statistically significant disparity was not found.



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# 7

## ***SUBCONTRACTOR DISPARITY ANALYSIS***

### ***I. INTRODUCTION***

The objective of this analysis is to determine if minority and woman-owned business enterprise (M/WBE) subcontractors were underutilized at a statistically significant level. A detailed discussion of the statistical procedures for conducting a disparity analysis is set forth in *Chapter 6: Prime Contractor Disparity Analysis*. The same analytical procedures were used to perform the subcontractor disparity analysis. Under a fair and equitable system of awarding subcontracts, the proportion of subcontracts and subcontract dollars awarded to M/WBEs should be approximate to the proportion of available M/WBEs in the relevant market area. If the proportions are not approximate and a disparity exists between these proportions, the probability that the disparity is due to chance can be determined using a statistical test. If there is a low probability that the disparity is due to chance, *Croson* states that an inference of discrimination can be made.<sup>1</sup>

### ***II. DISPARITY ANALYSIS OVERVIEW***

As detailed in *Chapter 3: Subcontractor Utilization Analysis*, extensive efforts were undertaken to obtain subcontracting records for the City's construction, architecture and engineering, and professional services contracts. The non-professional services and goods industries were not available and therefore not included in the subcontractor analysis.

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<sup>1</sup> When conducting statistical tests, a level of confidence must be established as a gauge for the level of certainty that an observed occurrence is not due to chance. It is important to note that a 100 percent confidence level or a level of absolute certainty can never be obtained in statistics. A 95 percent confidence level is considered by the courts as an acceptable level in determining whether an inference of discrimination can be made. Thus the data analyzed here was done within the 95 percent confidence level.



### **III. DISPARITY ANALYSIS**

#### **A. Construction Subcontractor Disparity Analysis: October 1, 2002 and September 30, 2007.**

The disparity analysis of construction subcontract dollars is depicted in Table 7.01 and Chart 7.01. These ethnic and gender groups are defined in Table 2.01 of *Chapter 2: Prime Contractor Utilization Analysis*.

*African American Businesses* represent 18.19 percent of the available construction firms and received 3.94 percent of the construction subcontract dollars. This underutilization is statistically significant.

*Asian American Businesses* represent 3.05 percent of the available construction firms and received 1.25 percent of the construction subcontract dollars. This underutilization is statistically significant.

*Hispanic American Businesses* represent 17.23 percent of the available construction firms and received 9.45 percent of the construction subcontract dollars. This underutilization is statistically significant.

*Native American Businesses* represent 2.08 percent of the available construction firms and received 3.34 percent of the construction subcontract dollars. This study does not test statistically the overutilization of minority groups.

*Minority Business Enterprises* represent 40.55 percent of the available construction firms and received 17.98 percent of the construction subcontract dollars. This underutilization is statistically significant.

*Women Business Enterprises* represent 18.13 percent of the available construction firms and received 27.6 percent of the construction subcontract dollars. This study does not test statistically the overutilization of women business groups.

*Minority and Women Business Enterprises* represent 58.68 percent of the available construction firms and received 45.58 percent of the construction subcontract dollars. This underutilization is statistically significant.

*Non-Minority and Non-Women Business Enterprises* represent 41.32 percent of the available construction firms and received 54.42 percent of the construction subcontract dollars. This overutilization is statistically significant.



**Table 7.01 Disparity Analysis: Construction Subcontracts, October 1, 2002 to September 30, 2007**

<b>Ethnicity</b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
African Americans	\$16,813,747	3.94%	18.19%	\$77,733,616	-\$60,919,869	0.22	< .05 *
Asian Americans	\$5,351,650	1.25%	3.05%	\$13,027,498	-\$7,675,848	0.41	< .05 *
Hispanic Americans	\$40,394,374	9.45%	17.23%	\$73,592,424	-\$33,198,050	0.55	< .05 *
Native Americans	\$14,273,510	3.34%	2.08%	\$8,886,307	\$5,387,204	1.61	**
Caucasian Females	\$117,919,741	27.60%	18.13%	\$77,474,791	\$40,444,950	1.52	**
Non-Minority Males	\$232,479,901	54.42%	41.32%	\$176,518,288	\$55,961,613	1.32	< .05 †
<b>TOTAL</b>	<b>\$427,232,924</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$427,232,924</b>			
<b>Ethnicity and Gender</b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
African American Females	\$1,793,899	0.42%	3.88%	\$16,564,766	-\$14,770,867	0.11	< .05 *
African American Males	\$15,019,848	3.52%	14.32%	\$61,168,850	-\$46,149,002	0.25	< .05 *
Asian American Females	\$7,231	0.00%	0.75%	\$3,192,168	-\$3,184,938	0.00	----
Asian American Males	\$5,344,420	1.25%	2.30%	\$9,835,330	-\$4,490,910	0.54	< .05 *
Hispanic American Females	\$7,802,831	1.83%	3.39%	\$14,494,170	-\$6,691,339	0.54	< .05 *
Hispanic American Males	\$32,591,542	7.63%	13.83%	\$59,098,254	-\$26,506,712	0.55	< .05 *
Native American Females	\$1,297,549	0.30%	0.67%	\$2,847,069	-\$1,549,521	0.46	----
Native American Males	\$12,975,962	3.04%	1.41%	\$6,039,238	\$6,936,724	2.15	**
Caucasian Females	\$117,919,741	27.60%	18.13%	\$77,474,791	\$40,444,950	1.52	**
Non-Minority Males	\$232,479,901	54.42%	41.32%	\$176,518,288	\$55,961,613	1.32	< .05 †
<b>TOTAL</b>	<b>\$427,232,924</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$427,232,924</b>			
<b>Minority and Gender</b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
Minority Females	\$10,901,510	2.55%	8.68%	\$37,098,174	-\$26,196,664	0.29	< .05 *
Minority Males	\$65,931,772	15.43%	31.87%	\$136,141,671	-\$70,209,899	0.48	< .05 *
Caucasian Females	\$117,919,741	27.60%	18.13%	\$77,474,791	\$40,444,950	1.52	**
Non-Minority Males	\$232,479,901	54.42%	41.32%	\$176,518,288	\$55,961,613	1.32	< .05 †
<b>TOTAL</b>	<b>\$427,232,924</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$427,232,924</b>			
<b>Minority and Females</b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
Minority Business Enterprises	\$76,833,281	17.98%	40.55%	\$173,239,845	-\$96,406,563	0.44	< .05 *
Women Business Enterprises	\$117,919,741	27.60%	18.13%	\$77,474,791	\$40,444,950	1.52	**
<b>Minority and Women Business Enterprises</b>	<b>\$194,753,022</b>	<b>45.58%</b>	<b>58.68%</b>	<b>\$250,714,636</b>	<b>-\$55,961,613</b>	<b>0.78</b>	<b>&lt; .05 *</b>
Non-Minority and Non-Women Business Enterprises	\$232,479,901	54.42%	41.32%	\$176,518,288	\$55,961,613	1.32	< .05 †

( \* ) denotes a statistically significant underutilization.

( † ) denotes a statistically significant overutilization.

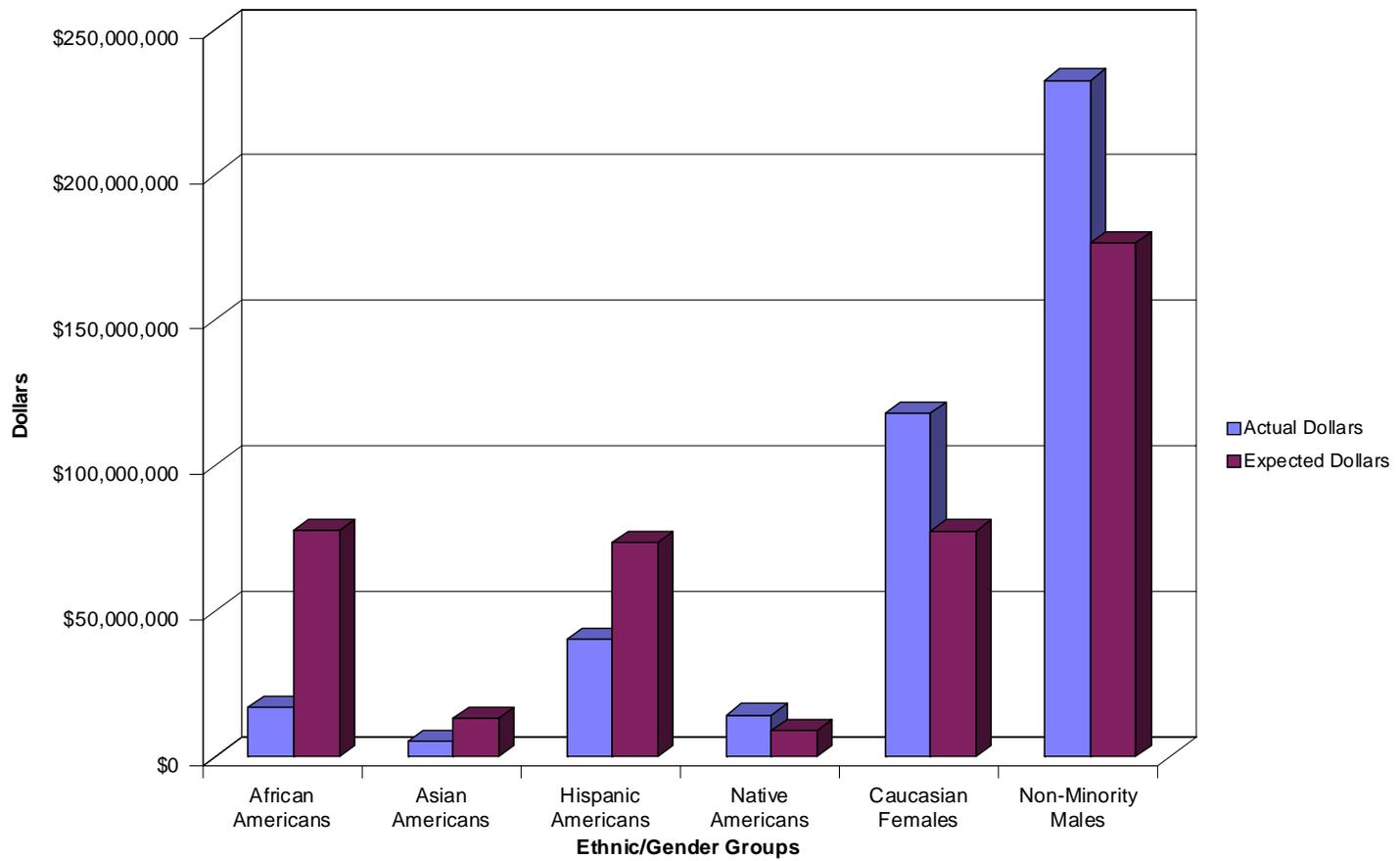
( \*\* ) denotes that this study does not test statistically the overutilization of M/WBEs or the underutilization of Caucasian males.

( ---- ) denotes an underutilized group with too few available firms to test statistical significance.

^ See Chapter 2: Prime Contractor Utilization Analysis, Table 2.01 for a definition of each ethnic and gender group

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**Chart 7.01 Disparity Analysis: Construction Subcontracts, October 1, 2002 to September 30, 2007**



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## ***B. Architecture and Engineering Subcontractor Analysis: October 1, 2002 to September 30, 2007***

The disparity analysis of architecture and engineering subcontract dollars is depicted in Table 7.02 and Chart 7.02.

*African American Businesses* represent 13.43 percent of the available architecture and engineering firms and received 9.22 percent of the architecture and engineering subcontract dollars. This underutilization is not statistically significant.

*Asian American Businesses* represent 7.38 percent of the available architecture and engineering firms and received 7.46 percent of the architecture and engineering subcontract dollars. This study does not test statistically the overutilization of minority business groups.

*Hispanic American Businesses* represent 11.41 percent of the available architecture and engineering firms and received 53.81 percent of the architecture and engineering subcontract dollars. This study does not test statistically the overutilization of minority business groups.

*Native American Businesses* represent 1.61 percent of the available architecture and engineering firms and received 1.89 percent of the architecture and engineering subcontract dollars. This study does not test statistically the overutilization of minority business groups.

*Minority Business Enterprises* represent 33.83 percent of the available architecture and engineering firms and received 72.38 percent of the architecture and engineering subcontract dollars. This study does not test statistically the overutilization of minority business groups.

*Women Business Enterprises* represent 20.23 percent of the available architecture and engineering firms and received 19.24 percent of the architecture and engineering subcontract dollars. This underutilization is not statistically significant.

*Minority and Women Business Enterprises* represent 54.06 percent of the available architecture and engineering firms and received 91.62 percent of the architecture and engineering subcontract dollars. This study does not test statistically the overutilization of minority and women business groups.

*Non-Minority and Non-Women Business Enterprises* represent 45.94 percent of the available architecture and engineering firms and received 8.38 percent of the architecture and engineering subcontract dollars. This study does not test statistically the underutilization of non-minority and non-women business groups.



**Table 7.02 Disparity Analysis: Architecture and Engineering Subcontracts, October 1, 2002 to September 30, 2007**

<b>Ethnicity<sup>^</sup></b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
African Americans	\$3,412,234	9.22%	13.43%	\$4,971,278	-\$1,559,044	0.69	not significant
Asian Americans	\$2,761,336	7.46%	7.38%	\$2,731,003	\$30,333	1.01	**
Hispanic Americans	\$19,919,744	53.81%	11.41%	\$4,224,520	\$15,695,224	4.72	**
Native Americans	\$698,897	1.89%	1.61%	\$597,407	\$101,491	1.17	**
Caucasian Females	\$7,122,545	19.24%	20.23%	\$7,488,921	-\$366,376	0.95	not significant
Non-Minority Males	\$3,103,130	8.38%	45.94%	\$17,004,758	-\$13,901,628	0.18	**
<b>TOTAL</b>	<b>\$37,017,887</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$37,017,887</b>			
<b>Ethnicity and Gender</b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
African American Females	\$1,140,305	3.08%	2.65%	\$981,454	\$158,851	1.16	**
African American Males	\$2,271,929	6.14%	10.78%	\$3,989,824	-\$1,717,895	0.57	< .05 *
Asian American Females	\$574,899	1.55%	1.67%	\$618,743	-\$43,844	0.93	not significant
Asian American Males	\$2,186,437	5.91%	5.71%	\$2,112,260	\$74,177	1.04	**
Hispanic American Females	\$2,907,418	7.85%	2.25%	\$832,102	\$2,075,315	3.49	**
Hispanic American Males	\$17,012,326	45.96%	9.16%	\$3,392,417	\$13,619,909	5.01	**
Native American Females	\$78,786	0.21%	0.58%	\$213,360	-\$134,573	0.37	----
Native American Males	\$620,111	1.68%	1.04%	\$384,047	\$236,064	1.61	**
Caucasian Females	\$7,122,545	19.24%	20.23%	\$7,488,921	-\$366,376	0.95	not significant
Non-Minority Males	\$3,103,130	8.38%	45.94%	\$17,004,758	-\$13,901,628	0.18	**
<b>TOTAL</b>	<b>\$37,017,887</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$37,017,887</b>			
<b>Minority and Gender</b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
Minority Females	\$4,701,408	12.70%	7.15%	\$2,645,659	\$2,055,749	1.78	**
Minority Males	\$22,090,804	59.68%	26.69%	\$9,878,548	\$12,212,255	2.24	**
Caucasian Females	\$7,122,545	19.24%	20.23%	\$7,488,921	-\$366,376	0.95	not significant
Non-Minority Males	\$3,103,130	8.38%	45.94%	\$17,004,758	-\$13,901,628	0.18	**
<b>TOTAL</b>	<b>\$37,017,887</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$37,017,887</b>			
<b>Minority and Females</b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
Minority Business Enterprises	\$26,792,211	72.38%	33.83%	\$12,524,207	\$14,268,004	2.14	**
Women Business Enterprises	\$7,122,545	19.24%	20.23%	\$7,488,921	-\$366,376	0.95	not significant
<b>Minority and Women Business Enterprises</b>	<b>\$33,914,757</b>	<b>91.62%</b>	<b>54.06%</b>	<b>\$20,013,128</b>	<b>\$13,901,628</b>	<b>1.69</b>	<b>**</b>
Non-Minority and Non-Women Business Enterprises	\$3,103,130	8.38%	45.94%	\$17,004,758	-\$13,901,628	0.18	**

(\*) denotes a statistically significant underutilization.

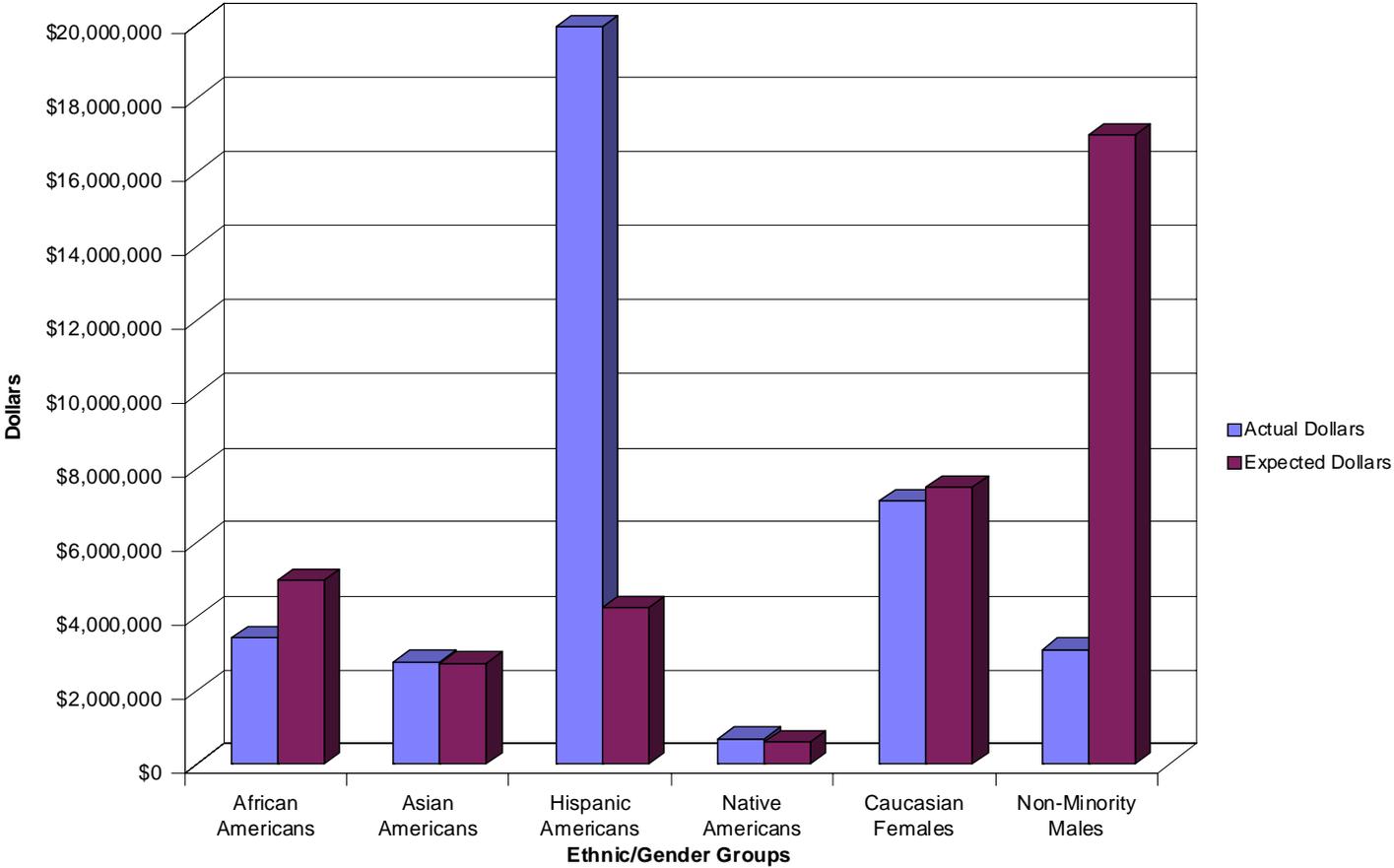
(†) denotes a statistically significant overutilization.

(\*\*) denotes that this study does not test statistically the overutilization of M/WBEs or the underutilization of Caucasian males.

(----) denotes an underutilized group with too few available firms to test statistical significance.

<sup>^</sup> See Chapter 2: Prime Contractor Utilization Analysis, Table 2.01 for a definition of each ethnic and gender group

**Chart 7.02 Disparity Analysis: Architecture and Engineering Subcontracts, October 1, 2002 to September 30, 2007**



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### **C. Professional Services Subcontractor Analysis: October 1, 2002 to September 30, 2007**

The disparity analysis of Professional Services subcontract dollars is depicted in Table 7.03 and Chart 7.03.

*African American Businesses* represent 20.4 percent of the available professional services firms and received 10.38 percent of the professional services subcontract dollars. This underutilization is statistically significant.

*Asian American Businesses* represent 6.14 percent of the available professional services firms and received 8.44 percent of the professional services subcontract dollars. This study does not test statistically the overutilization of minority business groups.

*Hispanic American Businesses* represent 9.15 percent of the available professional services firms and received 21.38 percent of the professional services subcontract dollars. This study does not test statistically the overutilization of minority business groups.

*Native American Businesses* represent 1.28 percent of the available professional services firms and received 1.25 percent of the professional services subcontract dollars. This underutilization is not statistically significant.

*Minority Business Enterprises* represent 36.96 percent of the available professional services firms and received 41.45 percent of the professional services subcontract dollars. This study does not test statistically the overutilization of minority business groups.

*Women Business Enterprises* represent 25.7 percent of the available professional services firms and received 33.57 percent of the Professional Services subcontract dollars. This study does not test statistically the overutilization of women business groups.

*Minority and Women Business Enterprises* represent 62.66 percent of the available professional services firms and received 75.03 percent of the professional services subcontract dollars. This study does not test statistically the overutilization of minority and women business groups.

*Non-Minority and Non-Women Business Enterprises* represent 37.34 percent of the available professional services firms and received 24.97 percent of the professional services subcontract dollars. This study does not test statistically the underutilization of non-minority and non-women business groups.



**Table 7.03 Disparity Analysis: Professional Services Subcontracts, October 1, 2002 to September 30, 2007**

<b>Ethnicity^</b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
African Americans	\$1,508,253	10.38%	20.40%	\$2,963,746	-\$1,455,493	0.51	< .05 *
Asian Americans	\$1,225,848	8.44%	6.14%	\$891,439	\$334,409	1.38	**
Hispanic Americans	\$3,106,415	21.38%	9.15%	\$1,328,476	\$1,777,939	2.34	**
Native Americans	\$181,280	1.25%	1.28%	\$185,234	-\$3,954	0.98	not significant
Caucasian Females	\$4,877,209	33.57%	25.70%	\$3,733,625	\$1,143,584	1.31	**
Non-Minority Males	\$3,627,400	24.97%	37.34%	\$5,423,886	-\$1,796,486	0.67	**
<b>TOTAL</b>	<b>\$14,526,406</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$14,526,406</b>			
<b>Ethnicity and Gender</b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
African American Females	\$463,326	3.19%	9.24%	\$1,342,947	-\$879,621	0.35	< .05 *
African American Males	\$1,044,927	7.19%	11.16%	\$1,620,798	-\$575,871	0.64	< .05 *
Asian American Females	\$118,733	0.82%	1.89%	\$274,957	-\$156,224	0.43	not significant
Asian American Males	\$1,107,115	7.62%	4.24%	\$616,482	\$490,632	1.80	**
Hispanic American Females	\$495,937	3.41%	3.07%	\$445,720	\$50,217	1.11	**
Hispanic American Males	\$2,610,478	17.97%	6.08%	\$882,756	\$1,727,722	2.96	**
Native American Females	\$15,000	0.10%	0.52%	\$75,251	-\$60,251	0.20	----
Native American Males	\$166,280	1.14%	0.76%	\$109,983	\$56,298	1.51	**
Caucasian Females	\$4,877,209	33.57%	25.70%	\$3,733,625	\$1,143,584	1.31	**
Non-Minority Males	\$3,627,400	24.97%	37.34%	\$5,423,886	-\$1,796,486	0.67	**
<b>TOTAL</b>	<b>\$14,526,406</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$14,526,406</b>			
<b>Minority and Gender</b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
Minority Females	\$1,092,996	7.52%	14.72%	\$2,138,875	-\$1,045,879	0.51	< .05 *
Minority Males	\$4,928,800	33.93%	22.24%	\$3,230,020	\$1,698,781	1.53	**
Caucasian Females	\$4,877,209	33.57%	25.70%	\$3,733,625	\$1,143,584	1.31	**
Non-Minority Males	\$3,627,400	24.97%	37.34%	\$5,423,886	-\$1,796,486	0.67	**
<b>TOTAL</b>	<b>\$14,526,406</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$14,526,406</b>			
<b>Minority and Females</b>	<b>Actual Dollars</b>	<b>Utilization</b>	<b>Availability</b>	<b>Expected Dollars</b>	<b>Dollars Lost</b>	<b>Disp. Ratio</b>	<b>P-Value</b>
Minority Business Enterprises	\$6,021,796	41.45%	36.96%	\$5,368,895	\$652,901	1.12	**
Women Business Enterprises	\$4,877,209	33.57%	25.70%	\$3,733,625	\$1,143,584	1.31	**
<b>Minority and Women Business Enterprises</b>	<b>\$10,899,006</b>	<b>75.03%</b>	<b>62.66%</b>	<b>\$9,102,520</b>	<b>\$1,796,486</b>	<b>1.20</b>	<b>**</b>
Non-Minority and Non-Women Business Enterprises	\$3,627,400	24.97%	37.34%	\$5,423,886	-\$1,796,486	0.67	**

( \* ) denotes a statistically significant underutilization.

( † ) denotes a statistically significant overutilization.

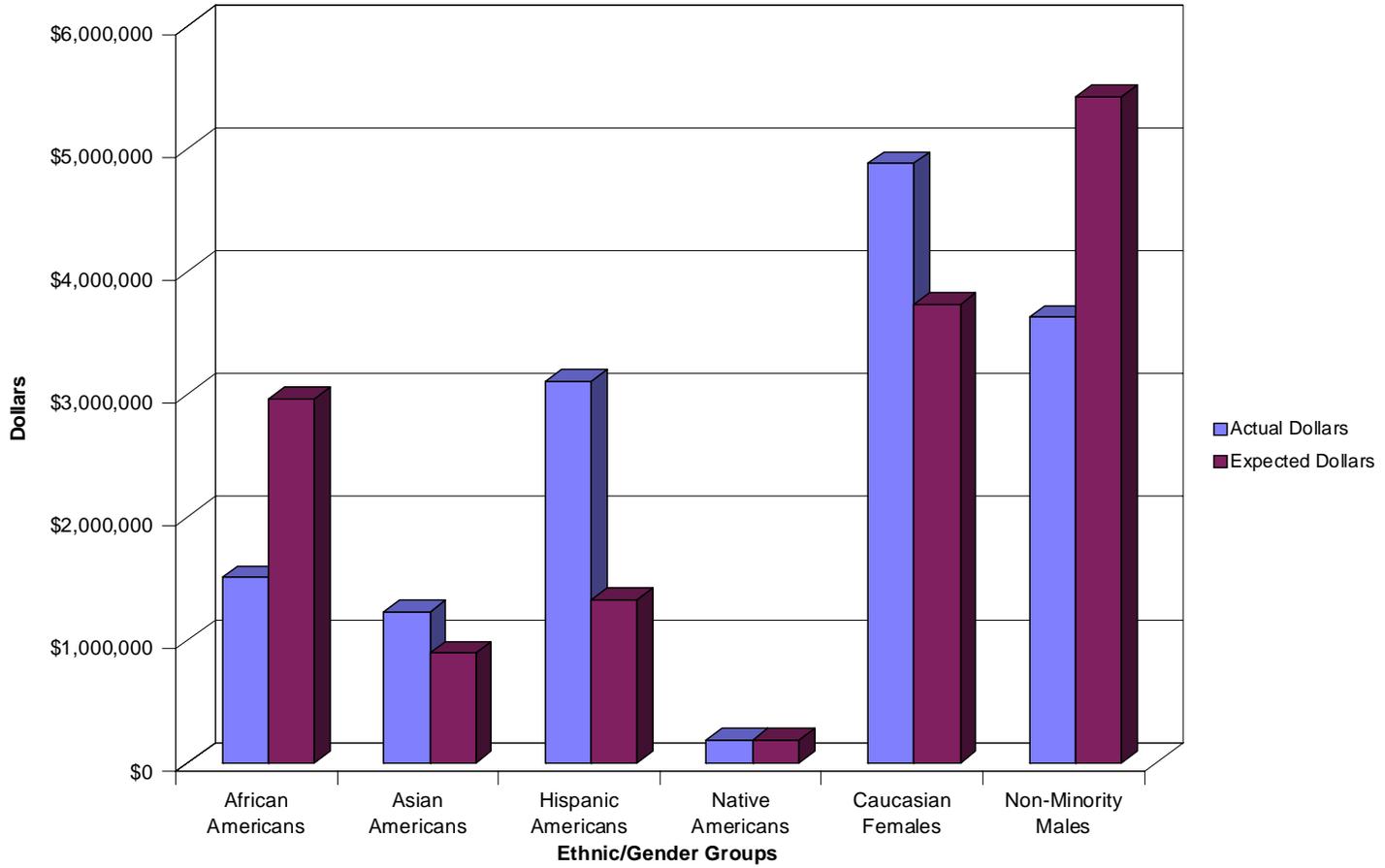
( \*\* ) denotes that this study does not test statistically the overutilization of M/WBEs or the underutilization of Caucasian males.

( ---- ) denotes an underutilized group with too few available firms to test statistical significance.

^ See Chapter 2: Prime Contractor Utilization Analysis, Table 2.01 for a definition of each ethnic and gender group

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**Chart 7.03 Disparity Analysis: Professional Services Subcontracts, October 1, 2002 to September 30, 2007**



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# IV. SUBCONTRACTOR DISPARITY SUMMARY

The subcontractor disparity findings in the industries under consideration are summarized in Table 7.04 below

As indicated in Table 7.04, construction subcontracts had a statistically significant disparity for African Americans, Asian Americans, and Hispanic Americans. No statistically significant disparity was found in architecture and engineering subcontracts for any minority or women business group. However, there was significant underutilization for African Americans. Statistically significant disparity was found in professional services subcontracts for African Americans.

**Table 7.04 Subcontractor Disparity Summary, October 1, 2002 to September 30, 2007**

<b>Ethnicity / Gender</b>	<b>Construction Services</b>	<b>Architecture and Engineering</b>	<b>Professional Services</b>
African Americans	Yes	No	Yes
Asian Americans	Yes	No	No
Hispanic Americans	Yes	No	No
Native Americans	No	No	No
Minority Business Enterprises	Yes	No	No
Women Business Enterprises	No	No	No
Minority and Women Business Enterprises	Yes	No	No

Yes = Statistically significant disparity was found  
 No = Statistically significant disparity was not found



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# 8

## **RECOMMENDATIONS**

### **I. INTRODUCTION**

This chapter provides race and gender-specific recommendations for the groups that had a statistically significant underutilization, as well as race and gender-neutral recommendations for all groups. The race-neutral recommendations include best management practices, an analysis of the City of Fort Worth's (City) procurement procedures, set forth in the City's Administrative Regulations Purchasing Manual, and a review of the City's web site. The statistical analysis was a review of construction, architecture and engineering, professional services, non-professional services, and goods contracts awarded during the October 1, 2002 through September 30, 2007 study period.

This chapter is organized into six sections. The first is an *Introduction*, the second section, *Disparity Findings*, presents the statistical disparity analysis. A Review of the City's *Minority and Women-Owned Business Program* is presented in section three. *Race-Conscious Remedies* are provided in section four, and *Race and Gender-Neutral Recommendations* in section five. Section six presents the *Administrative Recommendations*.

### **II. DISPARITY FINDINGS**

The statistical analysis of M/WBE utilization is a key component of the Study. The objective of the analysis was to determine if M/WBE contractors were utilized at the level they were available in the City's market area. Statistically significant underutilization of an ethnic or gender group constituted a disparity. Race and gender-specific recommendations are proposed where there was a disparity.

The findings are presented by ethnicity and gender within each industry and at the formal and informal thresholds. The informal threshold level was \$25,000 and under for construction, professional services, non-professional services, architecture and engineering and goods.



The disparity analysis of the formal contracts addressed each of the five industries but was limited to contracts valued under \$500,000.

**A. Prime Contracts**

As depicted in Table 8.01 below, the City issued 20,160 contracts during the October 1, 2002 to September 30, 2007 study period. The 20,160 contracts included 1,111 for construction, 662 for architecture and engineering, 2,773 for professional services, 8,578 for non-professional services, and 7,036 for goods.

The payments made by the City during the study period totaled \$1,351,310,036 for the 20,160 contracts. These expenditures included \$638,173,133 for construction, \$68,349,670 for architecture and engineering, \$68,839,866 for professional services, \$339,530,159 for non-professional services, and \$236,417,209 for goods.

**Table 8.01 Total Prime Contracts and Dollars Expended: All Industries, October 1, 2002 to September 30, 2007**

<b>Industry</b>	<b>Total Number of Contracts</b>	<b>Total Dollars Expended</b>
Construction	1,111	\$638,173,133
Architecture and Engineering	662	\$68,349,670
Professional Services	2,773	\$68,839,866
Non-Professional Services	8,578	\$339,530,159
Goods	7,036	\$236,417,209
<b>Total Expenditures</b>	<b>20,160</b>	<b>\$1,351,310,036</b>



## **B. Subcontracts**

As depicted in Table 8.02 below, the 9,742 subcontracts analyzed included 8,420 construction subcontracts, 872 architecture and engineering subcontracts, and 450 professional services subcontracts. On the subcontracts identified, \$478,777,217 total dollars were expended and \$427,232,924 were for construction subcontracts, 37,017,887 for architecture and engineering subcontracts, and \$14,526,406 for professional services subcontracts.

**Table 8.02 Total Subcontract Dollars: All Industries, October 1, 2002 to September 30, 2007**

<b>Industry</b>	<b>Total Number of Subcontracts</b>	<b>Total Dollars Expended</b>
Construction	8,420	\$427,232,924
Architecture and Engineering	872	\$37,017,887
Professional Services	450	\$14,526,406
<b>Total</b>	<b>9,742</b>	<b>\$478,777,217</b>



## **C. Prime Contractor Disparity Findings**

### **1. Construction Contracts**

As indicated in Table 8.03, African American, Hispanic American, and Native American construction contractors were determined to be underutilized at a significantly significant level on both the informal and formal contracts. Asian American and Women Business Enterprise construction contractors were underutilized at the formal contract level.

**Table 8.03 Disparity Summary: Construction Contract  
Dollars, October 1, 2002 to September 30, 2007**

Ethnicity/Gender	Construction	
	Formal Contracts under \$500,000	Informal Contracts \$25,000 and under
African Americans	Yes	Yes
Asian Americans	Yes	No
Hispanic Americans	Yes	Yes
Native Americans	Yes	Yes
Minority Business Enterprises	Yes	Yes
Women Business Enterprises	Yes	No
Minority and Women Business Enterprises	Yes	Yes

Yes = Statistically significant disparity was found.

No = Statistically significant disparity was not found.



## 2. Architecture and Engineering Contracts

As indicated in Table 8.04, African American, Hispanic American, Native American, and Women Business Enterprise architecture and engineering contractors were determined to be underutilized at a statistically significant level at both the informal and formal contract levels. Asian American architecture and engineering contractors were not underutilized at the informal contract level.

**Table 8.04 Disparity Summary: Architecture and Engineering Contract Dollars, October 1, 2002 to September 30, 2007**

Ethnicity/Gender	Architecture and Engineering	
	Formal Contracts under \$500,000	Informal Contracts \$25,000 and under
African Americans	Yes	Yes
Asian Americans	Yes	No
Hispanic Americans	Yes	Yes
Native Americans	Yes	Yes
Minority Business Enterprises	Yes	Yes
Women Business Enterprises	Yes	Yes
Minority and Women Business Enterprises	Yes	Yes

Yes = Statistically significant disparity was found.

No = Statistically significant disparity was not found.



### 3. Professional Services Contracts

As indicated in Table 8.05, African American, Asian American, Hispanic American, Native American, and Women Business Enterprise professional services contractors were determined to be underutilized at a statistically significant level on both the informal and formal contracts.

**Table 8.05 Disparity Summary: Professional Services  
Contract Dollars, October 1, 2002 to September 30, 2007**

Ethnicity/Gender	Professional Services	
	Formal Contracts under \$500,000	Informal Contracts \$25,000 and under
African Americans	Yes	Yes
Asian Americans	Yes	Yes
Hispanic Americans	Yes	Yes
Native Americans	Yes	Yes
Minority Business Enterprises	Yes	Yes
Women Business Enterprises	Yes	Yes
Minority and Women Business Enterprises	Yes	Yes

Yes = Statistically significant disparity was found.

No = Statistically significant disparity was not found.



#### 4. Non-Professional Services Contracts

As indicated in Table 8.06, African American, Asian American, Hispanic American, and Women Business Enterprise non-professional services contractors were determined to be underutilized at both the informal and formal contract levels.

**Table 8.06 Disparity Summary: Non-Professional Services  
Contract Dollars, October 1, 2002 to September 30, 2007**

Ethnicity/Gender	Non-Professional Services	
	Formal Contracts under \$500,000	Informal Contracts \$25,000 and under
African Americans	Yes	Yes
Asian Americans	Yes	Yes
Hispanic Americans	Yes	Yes
Native Americans	---	---
Minority Business Enterprises	Yes	Yes
Women Business Enterprises	Yes	Yes
Minority and Women Business Enterprises	Yes	Yes

Yes = Statistically significant disparity was found.

No = Statistically significant disparity was not found.

--- = There were insufficient records to determine statistical disparity.



## 5. Goods Contracts

As indicated in Table 8.07, African American, Asian American, Hispanic American, Native American, and Women Business Enterprise goods contractors were determined to be underutilized at a statistically significant level on both the informal and formal contracts.

**Table 8.07 Disparity Summary: Goods Contract Dollars,  
October 1, 2002 to September 30, 2007**

Ethnicity/Gender	Goods	
	Formal Contracts under \$500,000	Informal Contracts \$25,000 and under
African Americans	Yes	Yes
Asian Americans	Yes	Yes
Hispanic Americans	Yes	Yes
Native Americans	Yes	Yes
Minority Business Enterprises	Yes	Yes
Women Business Enterprises	Yes	Yes
Minority and Women Business Enterprises	Yes	Yes

Yes = Statistically significant disparity was found.

No = Statistically significant disparity was not found.



### **D. Subcontractor Disparity Findings**

As indicated in Table 8.08, construction subcontracts had a statistically significant disparity for African Americans, Asian Americans, and Hispanic Americans. No statistically significant disparity was found in architecture and engineering subcontracts for any minority or the women business enterprises. Statistically significant disparity was found in professional services subcontracts for African Americans, but not for the other groups.

**Table 8.08 Subcontractor Disparity Summary, October 1, 2002 to September 30, 2007**

<b>Ethnicity / Gender</b>	<b>Construction Services</b>	<b>Architecture and Engineering</b>	<b>Professional Services</b>
African Americans	Yes	No	Yes
Asian Americans	Yes	No	No
Hispanic Americans	Yes	No	No
Native Americans	No	No	No
Minority Business Enterprises	Yes	No	No
Women Business Enterprises	No	No	No
Minority and Women Business Enterprises	Yes	No	No

Yes = Statistically significant disparity was found  
 No = Statistically significant disparity was not found



### **III. MINORITY AND WOMEN-OWNED BUSINESS ENTERPRISE PROGRAM**

The City of Fort Worth is committed to implementing remedies for past underutilization of qualified minority and women-owned business enterprises (M/WBEs) and to prevent ongoing underutilization of M/WBEs in the City's contracting processes.

#### **1. Minority and Women-Owned Business Enterprise Certification**

The City's Minority and Women-Owned Business Enterprise Program accepts the certification from the North Central Texas Regional Certification Agency.

#### **2. Minority and Women-Owned Business Enterprise Goals**

To meet the objectives of the M/WBE program, the City Manager recommends a reasonable annual goal to the City Council. The goal is expressed in terms of a percentage of the total dollar value of all applicable contracts awarded by the City. Additionally, prior to solicitation, individual contract goals are set by the M/WBE Office in collaboration with the Contract Officer and Risk Management.

### **IV. RACE AND GENDER-CONSCIOUS REMEDIES**

Mason Tillman recommends several race and gender-conscious remedies to address the statistically significant findings of underutilization for M/WBEs.

#### **A. Prime Contract Remedies**

##### **1. Small Contracts Rotation Program**

There are statistically significant findings of underutilization in the five industries, including African Americans, Hispanic Americans, and Native Americans in informal prime construction contracts; African Americans, Hispanic Americans, Native Americans, and Women Business Enterprises in informal prime architecture and engineering contracts; all minority and women business groups in informal prime professional services contracts; African Americans, Asian Americans, Hispanic Americans, and Women Business Enterprises in informal prime non-professional services contracts; and all minority and women business groups in informal prime goods contracts. These findings cannot be explained as simply the result of competitive bidding, because informal contracts are not advertised or awarded through a competitive process. Informal contracts do require the solicitation of at least three written or oral quotations, but the solicitation is not advertised.



A small contracts rotation program could be established for informal contracts in each of the five industries. This program would limit competition to businesses from the statistically significant underutilized groups and other disadvantaged businesses of comparable capacity. This program would ensure that quotations, proposals, or statements of qualifications for informal contracts are solicited from a diverse pool of small businesses on a rotating basis. Every four or five solicitations would be limited to competition between the groups with a statistical disparity. By awarding prime contracts to M/WBEs, this program is a means for building the capacity of the M/WBEs that have a finding of statistically significant underutilization and other similarly situated disadvantaged businesses.

The program would encompass five industries: construction, architecture and engineering, professional services, non-professional services, and goods. The statistically significant underutilized group(s) would be presumed to be eligible. The eligibility of any other groups would be determined through a certification process. The certification process would determine whether the business was small, local, or disadvantaged.

Work orders in all industries would be assigned on a rotating basis, and no business in the rotation would be eligible to receive a second assignment until all other businesses on the list had been offered at least one assignment. City managers would share responsibility for the achievement of the goals.

On a regular schedule, perhaps as frequently as each quarter, there would be an open enrollment period. On a designated date during each period, a random list of the newly pre-qualified businesses would be appended to the end of the pre-qualified list.

The existence of a small contracts rotation program should be widely advertised to the ethnic and gender groups in each industry with a statistical disparity and all other certified businesses. The list of pre-qualified vendors would be posted for public view on the City's website.

Financial support and technical assistance should also be made available to firms that participate in the program. Financial incentives could include such items as prompt payment, waived bonding requirements, reduced liability insurance requirement, and mobilization payments to offset start-up costs. Firms would graduate from the program once they reach a certain size threshold or after participating in the program for a specified time period.

## **2. Establish Evaluation Credits for Architecture and Engineering Prime Contractors**

Evaluation credits could be incorporated in the evaluation process for the award of architecture and engineering prime contracts. Evaluation credits would be given to African American, Asian American, Hispanic American, Native American and woman-owned prime



contractors that had bid on an architecture and engineering contract. Fifteen to twenty percent of the evaluation credits could be comprised of such evaluation credits when the selection process involves a Request for Proposal or Requests for Qualifications. Including evaluation credits in the evaluation criteria can counterbalance the competitive disadvantage experienced by the underutilized groups. As a result, offsetting this disadvantage could mitigate the documented underutilization in architecture and engineering service prime contracts. The evaluation credits would be applied in the evaluation process for formal contracts, as permitted under the Texas Government Code.

### **3. Establish Evaluation Credits for Professional Services Prime Contractors**

Evaluation credits could be incorporated in the evaluation process for the award of professional services prime contracts. Evaluation credits would be given to African American, Hispanic American, Asian American, Native American, and woman-owned business professional services prime contractors that had bid on an architecture and engineering contract. Fifteen to twenty percent of the evaluation credits could be comprised of such evaluation credits when the selection process involves a Request for Proposals or Request for Qualifications. Including evaluation credits in the evaluation criteria can counterbalance the competitive disadvantage experienced by the underutilized groups. As a result, offsetting this disadvantage could mitigate the documented underutilization in professional services prime contracts. The evaluation credits would be applied in the evaluation process for formal contracts, as permitted under the Texas Government Code.

### **4. Require Minority Participation on All Evaluation Panels**

The City should require at least one minority member on all contractor evaluation and selection panels that review and award City contracts in excess of the formal solicitation thresholds. The City should consult with the Minority/Women Business Enterprise Advisory Committee and other minority organizations in the market area to provide qualified minority experts to serve on the evaluation and selection panels.

## ***B. Subcontractor Remedies***

### **1. Set Overall MBE Subcontracting Goals**

Construction subcontracts had a statistically significant disparity for African American, Hispanic American, and Asian American business enterprises. Professional Services subcontracts had a statistically significant disparity for African American business enterprises. An overall MBE subcontracting goal should be set to eliminate the documented disparity. The overall subcontracting goal should reflect the availability of the statistically significant underutilized groups documented in the Availability and Disparity Study. Table 8.09 below depicts the availability of the three groups that were underutilized at a statistically significant



level. The overall goal should be determined by the availability of the groups with documented disparity.

**Table 8.09 Subcontractor Availability**

<b>Underutilized Groups</b>	<b>Construction Availability Percentage</b>	<b>Professional Services Availability Percentage</b>
African American Businesses	18.19%	20.40%
Hispanic American Businesses	17.23%	---
Asian American Businesses	3.05%	---

**2. Establish Weighted Contract Specific Construction Subcontracting Goals**

Subcontracting goals should be set on the City’s non-federal contracts for the groups that had a statistically significant underutilization. The contract specific goals should be set based on the items of work and each group’s current availability levels. The City’s M/WBE Department should review all construction procurements to determine the applicable subcontracting goals. The subcontracting goals should be stipulated in each Request for Bids.

**V. RACE AND GENDER-NEUTRAL RECOMMENDATIONS**

The race and gender-neutral recommendations contained in this section apply to all of the City’s prime contracts. Application of these recommendations could address barriers encountered M/W/D/BE and other small businesses in doing business with the City and in the market area in which it infuses contract dollars.

**A. Pre-Award Recommendations**

**1. Expand Unbundling Policy**

The City routinely unbundles large contracts into smaller ones to provide additional opportunities for M/WBEs. While the City has implemented measures to unbundle its contracts, the City issued 50 percent of the contract dollars during the October 1, 2002 to September 30, 2007 study period to less than one percent of the 4,704 utilized vendors.

Given the concentration of its contract awards with a few contractors, the City should make a greater effort to unbundle its contracts to increase the number of businesses participating at both the prime contract and subcontract levels. Smaller prime contracts would result in



smaller first-tier subcontracts. The City’s M/WBE Department should participate in the review of all large contracts to determine if they can be unbundled.

<b>CRITERIA TO BE USED IN EVALUATION</b>
Size and complexity of the project
Number of locations in the project
Sequencing and delivery of the work
Similarity of the goods and services procured
Availability of M/WBES to perform parts of the procurement

**2. Develop a Mentor/Protégé Program**

The City should implement a Mentor/Protégé Program to increase the participation of M/WBEs on its contracts. The City could provide incentives to its prime contractors to furnish technical and business assistance to increase the capacity of small, disadvantaged, minority, and woman-owned businesses to build their capacity to perform as prime contractors.

**3. Establish a Direct Purchase Program for Construction Contracts**

This program would reduce the amount of a construction bid subject to a bond. For the purpose of bonding the cost of supplies would be subtracted from the bid, thereby reducing the amount of the contractor’s bond that would be obligated for the job.

A direct purchase program can be beneficial to both the City and the prime contractors, especially M/WBEs. The surety bond premium would be reduced by the value of the material cost. In addition more competitive pricing should be available from the supplier because the City would make the payment directly. Savings on the direct cost of supplies would be a benefit to the City and to the contractor. The City’s supply costs, which the contractors pass through in their bids, would be reduced and the contractor’s cash flow requirement to pay suppliers in advance of receiving reimbursement from the City would be eliminated.

**4. Virtual Plan Room**

The City should consider purchasing software that would allow bidders to obtain digitized plans and specifications on the City’s website. Such software could reduce the need to designate or pay for a space for a plan room.



## **5. Form Partnerships with Lending Institutions**

The City should leverage existing relationships with financial institutions to assist small and disadvantaged businesses to secure competitive financing and start-up funding. Partnering with the City to foster small business development can be beneficial in meeting the financial institution's Community Reinvestment Act obligations.

## **6. Remove Brand Name Requirements in Solicitations**

The City should refrain from specifying brand names in their solicitations in order to avoid restricting competition because the named brands may not be available to the M/WBE or offered at a competitive price.

## **7. Owner Controlled Insurance Program**

The City should consider establishing an Owner Controlled Insurance Program (OCIP) to consolidate risk management costs and reduce the burden of the insurance premium for small business owners. Under an OCIP or "wrap-up" program, the project insurance would be provided for both prime contractors and subcontractors under a City plan.

Small businesses are at a competitive disadvantage because their insurance premiums are higher and typically the costs are spread over fewer contracts in contrast to the large contractor with more contracts against which the fees can be defrayed. Therefore, an OCIP could assist in leveling the playing field by reducing insurance expenses for M/WBEs.

An OCIP could be established in cooperation with other local governmental agencies. The participating governmental agencies would realize a cost benefit from the reduction in the insurance premium which the contractors pass through in their bids and proposals.

## **8. Revise Bonding Requirements**

Bonding requirements can be a significant disincentive to bidders, and a barrier to M/WBE bidders. Surety premiums are an indirect cost to the City which the prime contractors and subcontractors pass through in their bids. Therefore, the City should consider implementing a Surety Assistance Program for small contracts. A Surety Assistance Program could attract more bidders and thereby increase competition and reduce costs. Any revisions to the bonding provisions must comply with statutory requirements.

The bonding requirements on small contracts should be evaluated to ensure that they do not carry a disproportionately high level of coverage. On small contracts the bonding requirements should be set in relation to the scope of work to be performed. In addition the City should implement standard provisions for all of its contracts that reflect reasonable risks.



## 9. Expand Expedited Payment Program

The Expedited Payment Program should be expanded beyond its present use on horizontal construction projects to include all projects. This program removes the major barrier to small businesses—late payments from prime contractors. In an expedited payment program, certified M/WBEs would be paid on an accelerated schedule. Non-certified prime contractors meeting M/WBE goals would therefore be eligible for the expedited payment program. When a participating firm submits an invoice, an identification number would be included to mark it for a two week expedited payment. Invoices would be date-stamped immediately upon receipt, and approved invoices would be submitted for payment within ten days of receipt. Prime contractors would be required to pay their subcontractors within five days of receipt of their invoice payment.

## 10. Publish Informal Contracts

Informal contracts should be posted on the City’s website and small businesses should be requested to express their interest in performing the small contracts. E-mail notices of contracting opportunities should also be distributed to certified businesses providing the goods or service required.

## 11. Conduct a M/WBE Campaign Outreach

There should be a comprehensive outreach campaign to promote the enhancements from the Availability and Disparity Study which are incorporated in the current M/WBE Program. Table 8.10 below lists strategies and tactics that can be used to design a broad-based outreach program of the Minority and Women-Owned Business Enterprise Department.

**Table 8.10 Outreach and Marketing Strategies**

Strategy	Tactics
Design tagline produce banner display	<ul style="list-style-type: none"> <li>• Develop tagline</li> <li>• Design banner with placement of existing logo and new tagline</li> </ul>
Define design standards, layout, and appearance of procurement documents for the organization	<ul style="list-style-type: none"> <li>• Revise all procurement materials to include the program logo and tagline in order to have a uniform appearance</li> </ul>
Develop collateral print material for outreach campaign	<ul style="list-style-type: none"> <li>• Produce brochure to reflect the project goals and objectives</li> <li>• Develop articles and media packets</li> </ul>
Launch outreach campaign	<ul style="list-style-type: none"> <li>• Distribute media packets and press releases</li> </ul>



Strategy	Tactics
	<ul style="list-style-type: none"> <li>• Place public service announcements</li> <li>• Pitch campaign to broadcast media</li> </ul>
Host semi-annual contractors' open house and other networking events	<ul style="list-style-type: none"> <li>• Plan and coordinate open house events</li> <li>• Send out invitations via mail, fax, and e-mail</li> <li>• Include procurement department in outreach events</li> <li>• Make informal contract opportunities available</li> <li>• Distribute contract forecasts and certification forms</li> </ul>
Distribute forecasts to targeted businesses	<ul style="list-style-type: none"> <li>• Advertise on billboards</li> <li>• Post forecast to website</li> <li>• Distribute through fax and e-mail</li> <li>• Advertise forecasts on billboards</li> </ul>
Partner with agencies and organizations to disseminate program information	<ul style="list-style-type: none"> <li>• Continue current agency partnerships</li> <li>• Develop local business and trade group partners</li> </ul>
Conduct an annual program evaluation	<ul style="list-style-type: none"> <li>• Establish measurable outcomes</li> <li>• Conduct surveys</li> <li>• Examine bidding history</li> </ul>

## 12. Pay Mobilization to Subcontractors

Subcontractors should receive mobilization cost because project start-up costs can be significant for a subcontractor who often has limited access to credit. Whenever a mobilization payment is made to a prime contractor, the subcontractor should be paid an amount equal to its participation percentage when directed to mobilize and prior to commencing work.

### **B. Post-Award Recommendations**

#### 1. Enhance Routine Post-Award Contract Compliance Monitoring

The City's routine and rigorous contract compliance monitoring should be enhanced with several additional criteria.

The following contract compliance enhancements are recommended to augment the City's rigorous program compliance::

- Collect copies of the canceled checks written to subcontractors in order to verify



payment information on a quarterly basis

- Impose penalties or hold payment for failure to list or pay a subcontractor for work performed

## **2. Publish M/WBE Utilization Reports**

The City should publish quarterly utilization reports. Utilization reports that measure the effectiveness of the M/WBE Program should present payment and award data organized by industry, department, ethnicity, gender, and certification status. Change orders and substitutions should be identified in the reports and the changes in subcontractors or the subcontract amount should be tracked.

The utilization reports should be submitted to the City Council on a quarterly basis. The fourth quarter report should include an assessment of program activities and recommendations for improvement. Exemplary practices and achievements in each department should also be noted in the fourth quarter report. All utilization reports should be posted on the City's website and made available to businesses by e-mail.

## **3. Payment Verification Program**

A web-based payment verification program should be instituted. All prime payments would be posted weekly to inform subcontractors when the prime contractor has received payment on the City's web site. The posting should be scheduled for the same day and time each weekday to simplify the time required for subcontractors to track their prime contractor's payment. Web postings should reduce the time the City's staff presently spends to address subcontractors' questions regarding their prime contractor's payment.

## **4. Provide Debriefing Sessions for Unsuccessful Bidders**

Debriefing sessions for unsuccessful bidders should be held by the project managers. These sessions could provide vital information to assist businesses to prepare more competitive submittals.

# **VI. ADMINISTRATIVE RECOMMENDATIONS**

## **A. Website Enhancements**

The City's website was evaluated with the goal of improving its functionality, informational value, and access for contractors interested in the City's contracting opportunities.



One consistent trait of internet users is their highly goal-oriented approach when visiting a web page. Instead of reading carefully and sequentially, users quickly and superficially scan a page for items that seem related to the immediate task.

The “Business” menu is on the front page of the City’s website. The pages behind the links in the “Business” menu are well structured and presented in a prominent location that is in an easy to read format. The placement of a link highlighting Stimulus-funded Projects is a good practice because it provides relevant and timely content to most web users’ goal oriented impulses. Overall, the City’s site provides relevant information to users in an efficient manner.

### **1. Consider the Needs of Disabled or Impaired Users.**

One area in which the City’s website could be improved is its accessibility for disabled or impaired users. Most notably, some of the text in the headers and side bars are small and could be quite difficult for some users to read.

Also, to get a sense of the accessibility of the site to the visually impaired, we used a basic web-based screen reader to access the site. Unfortunately, it wasn’t able to parse the site in a meaningful way. This doesn’t necessarily mean the site is completely inaccessible, since it’s possible that more sophisticated software could read the site correctly, but it does highlight that this is an area that needs to be investigated to determine if there is a wider problem.

### **2. Create Interactive Website Portal**

The City should create a more interactive web interface in which prime contractors and subcontractors could upload, download, and submit compliance documentation to the Purchasing Department and M/WBE Division. The website should supplement paper or manual forms with electronic documents to the maximum extent possible. The interactive tools should include forms to allow current contractors and vendors to perform reporting and other administrative tasks. The site would serve as a management tool for both sides of the contracting relationship, keeping all parties informed. For example, the tool could allow the City to post change orders, update specifications, and notice changes in bid opening dates with automated notification. This would minimize the time and cost of direct communication to and from the City and the businesses.

The City should also consider an interactive tool to allow businesses to send comments concerning upcoming procurements and other ideas. The City could benefit from the comments from the businesses which could result in potential cost savings and increased competition.





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