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January 2006

Dear MWBE Program Stakeholder:

I am forwarding herewith a copy of the 2006 Disparity Study, performed by Mason Tillman Associates, Ltd, for your information and review. The study identified a statistically significant underutilization of various ethnic and gender groups in the award of prime and subcontracts, and provides an excellent springboard from which to develop an MWBE program that will continue to serve as a national model. An additional component under review, a private sector analysis, will be completed by January 31st.

The study examined the relationship between the utilization and availability of willing and able MWBE and non MWBE firms on both prime contracts and subcontracts. It also included MWBE firms regardless of size or certification status. This was appropriate, since the legal requirement of the study was to evaluate the availability of all firms that are ready, willing, and able to participate in City contracting. However, our current program goals are based on the combined participation of MWBE prime and subcontractors, while the study provides a separate analysis of each; and our program has a graduation component, which excludes the participation of firms that are no longer in the program, due to size. Therefore, we have requested some additional data and analysis from Mason Tillman that will allow us to evaluate the study results in a manner that more closely mirrors the way our program operates.

We will solicit stakeholder input into the modification of the MWBE program and its goals, based on the findings of the study.

If you have any questions or need additional information, I can be reached at 713.837.9015.

Sincerely,

A handwritten signature in cursive script that reads "Velma Laws".

Velma Laws, Director



December 31, 2006

Ms. Velma Laws
Director, Affirmative Action and Contract Compliance
City of Houston
611 Walker, 7th Floor
Houston, TX 77002

Subject: City of Houston Disparity Study - Final Report

Dear Ms. Laws:

Enclosed please find the Disparity Study Final Report containing nine chapters. This report includes the Legal Analysis Chapter, Contracting and Procurement Chapter, Prime Contractor Utilization Analysis Chapter, Subcontractor Utilization Analysis Chapter, Market Area Analysis Chapter, Availability Analysis Chapter, Prime Contractor Disparity Analysis Chapter, Subcontractor Disparity Analysis Chapter, and the Recommendations Chapter.

Please feel free to contact me if you have any questions or concerns about this final Disparity Study report.

Sincerely,

Eleanor Ramsey

Eleanor Mason Ramsey, Ph.D.
President

cc: Lynn Reddrick, Senior Project Manager

THE CITY OF HOUSTON DISPARITY STUDY

Houston, Texas December 2006



SUBMITTED BY
MASON TILLMAN
ASSOCIATES, LTD.

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1

LEGAL ANALYSIS

I. INTRODUCTION

This section discusses the state of the law applicable to affirmative action programs in the area of public contracting. Two United States Supreme Court decisions, *City of Richmond v. J.A. Croson Co.*¹ (*Croson*) and *Adarand v. Peña*² (*Adarand*), raised the standard by which federal courts will review such programs. In those decisions, the Court announced that the constitutionality of affirmative action programs that employ racial classifications would be subject to “strict scrutiny.” An understanding of *Croson*, which applies to state and local governments, is necessary in developing sound Minority Owned Business Enterprise (MBE) and Woman-owned Business Enterprise (WBE) programs. Broad notions of equity or general allegations of historical and societal discrimination against minorities are insufficient to meet the requirements of the Equal Protection clause of the Constitution. Instead, governments may adopt race-conscious programs only as a remedy for identified discrimination, and this remedy must impose a minimal burden upon unprotected classes.

Adarand, which followed *Croson* in 1995, applied the strict scrutiny standard to federal programs. The U.S. Department of Transportation amended its regulations to focus on outreach to Disadvantaged Business Enterprises (DBEs). Although the Supreme Court heard argument in *Adarand* in the October 2001 term, it subsequently decided that it had improvidently granted *certiorari*. Thus, the amended DOT regulations continue to be in effect.

A caveat is appropriate here. The review under strict scrutiny is fact-specific. Nevertheless, three post-*Croson* Federal Court of Appeals opinions do provide guidelines for the evidence that should be adduced if race-conscious remedies are put in place. The

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

² *Adarand Constructors, Inc. v. Federico Peña*, 115 S.Ct. 2097 (1995).



Third, Eleventh, and Tenth Circuits assessed the disparity studies in question on the merits instead of disposing of the cases on procedural issues.³

From a legal standpoint, the purpose of this disparity study is three-fold: (1) to examine the conditions that exist in the City of Houston's market area; (2) to determine from an analysis of those conditions, whether, pursuant to the *Croson* standard, the conditions justify a race-conscious affirmative action program; and (3) if the findings support such a program, to make appropriate recommendations.

II. STANDARDS OF REVIEW

The standard of review represents the measure by which a court evaluates a particular legal issue. This section discusses the standard of review that the Supreme Court set for state and local programs in *Croson* and, potentially, federal programs in *Adarand*. It also discusses lower courts' interpretations of these two Supreme Court cases and evaluates the implications for program design that arise from these decisions.

A. Race-Conscious Programs

In *Croson*, the United States Supreme Court affirmed that pursuant to the 14th Amendment, the proper standard of review for state and local race-based programs is strict scrutiny.⁴ Specifically, the government must show that the classification is narrowly tailored to achieve a compelling state interest.⁵ The Court recognized that a state or local entity may take action, in the form of a MBE Program, to rectify the effects of *identified, systemic racial discrimination* within its jurisdiction.⁶ Justice O'Connor, speaking for the majority, articulated various methods of demonstrating discrimination and set forth guidelines for

³ *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); *Engineering Contractors of South Florida v. Metropolitan Dade County*, 943 F. Supp. 1546 (S.D. Fla. 1996), aff'd, 122 F. 3d 895 (11th Cir. 1997); and *Concrete Works of Colorado v. City and County of Denver*, 823 F. Supp 821 (D. Colo 1993), rev'd 36 F.3d 1513 (10th Cir. 1994) ("*Concrete Works I*"), on remand, 86 F.Supp 2d 1042 (D. Colo. 2000), rev'd 321 F.3d 950 (10th Cir. 2003) ("*Concrete Works II*"). In the federal court system, there are primarily three levels of courts: the Supreme Court, appellate courts, and district courts. The Supreme Court is the highest ranking federal court, and its rulings are binding on all other federal courts. Appellate courts' rulings are binding on all district courts in their geographical area and are used for guidance in other circuits. District court rulings, while providing insight into an appropriate legal analysis, are not binding on other courts at the district, appellate, or Supreme Court levels.

⁴ *Croson*, 488 U.S. at 493-95.

⁵ *Id.* at 493.

⁶ *Croson*, 488 U.S. at 509.



crafting MBE programs so that they are “narrowly tailored” to address systemic racial discrimination.⁷ The specific evidentiary requirements are detailed in Section IV.

B. Woman-Owned Business Enterprise

Since *Croson*, the Supreme Court has remained silent with respect to the appropriate standard of review for Woman-Owned Business Enterprise (WBE) and Local Business Enterprise (LBE) programs. *Croson* was limited to the review of a race-conscious plan. In other contexts, however, the Supreme Court has ruled that gender classifications are not subject to the rigorous strict scrutiny standard applied to racial classifications. Instead, gender classifications are subject only to an “intermediate” level of review, regardless of which gender is favored.

Notwithstanding the Supreme Court’s failure thus far to rule on a WBE program, the consensus among the Circuit Courts of Appeals is that these programs are subject only to intermediate scrutiny, rather than the more exacting strict scrutiny to which race-conscious programs are subject.⁸ Intermediate review requires the governmental entity to demonstrate an “important governmental objective” and a method for achieving this objective which bears a fair and substantial relation to the goal.⁹ The Court has also expressed the test as requiring an “exceedingly persuasive justification” for classifications based on gender.¹⁰

The Supreme Court acknowledged that in limited circumstances a gender-based classification favoring one sex can be justified if it intentionally and directly assists the members of that sex which are disproportionately burdened.¹¹

The Third Circuit, in *Contractors Association of Eastern Pennsylvania v. City of Philadelphia (Philadelphia)*, ruled in 1993 that the standard of review that governs WBE programs is different than the standard imposed upon MBE programs.¹² The Third Circuit

⁷ *Id.* at 501-02. Cases involving education and employment frequently refer to the principal concepts applicable to the use of race in government contracting: compelling interest and narrowly tailored remedies. The Supreme Court in *Croson* and subsequent cases provides fairly detailed guidance on how those concepts are to be treated in contracting. In education and employment, the concepts are not explicated to nearly the same extent. Therefore, references in those cases to “compelling governmental interest” and “narrow tailoring” for purposes of contracting are essentially generic, and of little value in determining the appropriate methodology for disparity studies.

⁸ See e.g., *Coral Construction Co. v. King County*, 941 F.2d 910 (9th Cir. 1991); *Philadelphia*, 91 F.3d 586 (3d Cir. 1996); *Engineering Contractors Association of South Florida Inc., et al. v. Metropolitan Dade County et al.*, 122 F.3d 895 (11th Cir. 1997). *Concrete Works II*, 321 F.3d at 959, is in accord.

⁹ *Craig v. Boren*, 429 U.S. at 198-99 (1976).

¹⁰ *Mississippi University for Women v. Hogan*, 458 U.S. 718 (1982). See also *Michigan Road Builders Ass’n., Inc. v. Milliken*, 834 F.2d 583 (6th Cir. 1987).

¹¹ *Id.* at 728.

¹² *Philadelphia*, 6 F.3d at 1000-01.



held that whereas MBE programs must be “narrowly tailored” to a “compelling state interest,” WBE programs must be “substantially related” to “important governmental objectives.”¹³ An MBE program would only survive constitutional scrutiny by demonstrating a pattern and practice of systemic racial exclusion or discrimination in which a state or local government was an active or passive participant.¹⁴

The Ninth Circuit in *Associated General Contractors of California v. City and County of San Francisco (AGCC I)* held that classifications based on gender require an “exceedingly persuasive justification.”¹⁵ The justification is valid only if members of the gender benefitted by the classification actually suffer a disadvantage related to the classification, and the classification does not reflect or reinforce archaic and stereotyped notions of the roles and abilities of women.¹⁶

The Eleventh Circuit also applies intermediate scrutiny.¹⁷ The district court in *Engineering Contractors Association of South Florida v. Metropolitan Dade County (Dade County)*, which was affirmed by the Eleventh Circuit U.S. Court of Appeals, cited the Third Circuit’s 1993 formulation in *Philadelphia*: “[T]his standard requires the [county] to present probative evidence in support of its stated rationale for the gender preference, discrimination against women-owned contractors.”¹⁸ Although the *Dade County* district court applied the intermediate scrutiny standard, it queried whether the Supreme Court decision in *United States v. Virginia*,¹⁹ finding the all male program at Virginia Military Institute unconstitutional, signaled a heightened level of scrutiny: parties who seek to defend gender-based government action must demonstrate an “exceedingly persuasive justification” for that action.²⁰ The *Dade County* appellate court echoed that speculation but likewise concluded that “[u]nless and until the Supreme Court tells us otherwise, intermediate scrutiny remains the applicable constitutional standard in gender discrimination cases, and a gender preference may be upheld so long as it is substantially related to an important governmental objective.”²¹

¹³ *Id.* at 1009.

¹⁴ *Id.* at 1002.

¹⁵ *Associated General Contractors of California v. City and County of San Francisco*, 813 F.2d 922, 940 (9th Cir. 1987).

¹⁶ *Id.* at 940.

¹⁷ *Ensley Branch N.A.A.C.P. v. Seibels*, 31 F.3d 1548, 1579-1580 (11th Cir. 1994).

¹⁸ *Dade County*, 122 F.3d at 909, (citing *Philadelphia*, 6 F.3d at 1010 (3d Cir. 1993)).

¹⁹ 116 S.Ct. 2264 (1996).

²⁰ *Dade County*, 943 F.Supp. at 1556.

²¹ *Dade County*, 122 F.3d at 908.



The *Dade County* appellate court noted that, at the time, by articulating the “probative evidence” standard, the Third Circuit in *Philadelphia* was the only federal appellate court that explicitly attempted to clarify the evidentiary requirement applicable to gender-conscious programs.²² It went on to interpret that standard to mean that “evidence offered in support of a gender preference must not only be ‘probative’ [but] must also be ‘sufficient.’”²³ It also reiterated two principal guidelines of intermediate scrutiny evidentiary analysis: (1) under this test, a local government must demonstrate some past discrimination against women, but not necessarily discrimination by the government itself;²⁴ and (2) the intermediate scrutiny evidentiary review is not to be directed toward mandating that gender-conscious affirmative action is used only as a “last resort”²⁵ but instead ensuring that the affirmative action is “a product of analysis rather than a stereotyped reaction based on habit.”²⁶ This determination turns on whether there is evidence of past discrimination in the economic sphere at which the affirmative action program is directed.²⁷ The court also stated that “a gender-conscious program need not closely tie its numerical goals to the proportion of qualified women in the market.”²⁸

C. Local Business Enterprise

The Ninth Circuit Court of Appeals applied the rational basis standard when evaluating LBE programs, holding that a local entity may give a preference to local businesses to address the economic disadvantages those businesses face in doing business within the city or county.²⁹ In *AGCC I*, a pre-*Croscon* case, the City and County of San Francisco conducted a detailed study of the economic disadvantages faced by San Francisco-based businesses versus businesses located outside the City and County boundaries. The study showed a competitive disadvantage in public contracting for businesses located within the City versus businesses from other areas.

San Francisco-based businesses had higher administrative costs of doing business within the City. Such costs included higher taxes, rents, wages, insurance rates, and benefits for

²² *Id.* at 909.

²³ *Id.*

²⁴ *Id.* at 910 (citing *Ensley Branch*, 31 F.3d at 1580).

²⁵ *Id.* (citing *Hayes v. North State Law Enforcement Officers Ass’n.*, 10 F.3d 207, 217 (4th Cir. 1993), racial discrimination case).

²⁶ *Id.* (citing *Philadelphia*, 6 F.3d at 1010 (quoting *Metro Broadcasting, Inc. v. FCC*, 497 U.S. 547, 582-583 (1990))).

²⁷ *Id.* (citing *Ensley Branch*, 31 F.3d at 1581).

²⁸ *Dade County*, 122 F.3d at 929. However, Judge Posner, in *Builders Ass’n of Greater Chicago v. County of Cook*, 256 F.3d 642 (7th Cir. 2001), questioned why there should be a lesser standard where the discrimination was against women rather than minorities.

²⁹ *AGCC I*, 813 F.2d at 943.



labor. In upholding the LBE Ordinance, the Ninth Circuit held that “. . . the city may rationally allocate its own funds to ameliorate disadvantages suffered by local business, particularly where the city itself creates some of the disadvantages.”³⁰

Federal constitutional issues do not end the inquiry, however. State statutes may impose their own restrictions.

D. Disadvantaged Business Enterprise Programs

In response to the United States Supreme Court’s decision in *Adarand*, which applied the strict scrutiny standard to federal programs, the U. S. Department of Transportation (USDOT) revised provisions of the DBE rules. Effective March 1999, the USDOT replaced 49 CFR part 23 of its DBE Program rules, with 49 CFR part 26. The goal of promulgating the new rule was to modify the DBE program consistent with the “narrow tailoring” requirement of *Adarand*. The new provisions apply only to the airport, transit, and highway financial assistance programs of the USDOT.

The recent Ninth Circuit decision in *Western States Paving v. Washington State DOT*³¹ criticized WSDOT goals, even though they were derived from the DOT regulations, because the capacity of DBEs to perform contracts was not taken into account. In WSDOT’s program, all ethnic groups were included without determining whether there had been discrimination against each one. Congress’ findings that there was discrimination nationally were sufficient to meet the “compelling interest,” justifying federal legislation. However, the majority held that for the State’s program to be “narrowly tailored,” those local determinations had to be made. The holding that a State had to make such findings is contrary to the district court’s decision in *Sherbrooke Turf, Inc. v. MNDOT* and *Gross Seed v. Nebraska Dept. of Roads*.³² This conflict, however, is not a daunting one because it can be overcome if the disparity study methodology option for determining goals is followed.

III. BURDEN OF PROOF

The procedural protocol established by *Croson* imposes an initial burden of proof upon the government to demonstrate that the challenged MBE program is supported by a strong factual predicate, i.e., documented evidence of past discrimination. Notwithstanding this requirement, the plaintiff bears the ultimate burden of proof to persuade the court that the

³⁰ *Id.* at 943.

³¹ 407 F.3d 983 (9th Cir. 2005).

³² *Sherbrooke Turf*, 2001 U.S. Dist. LEXIS 19565 (D. Minn. 2001); *Gross Seed*, 2002 U.S. Dist. LEXIS 27125 (D. Neb. 2002).



MBE program is unconstitutional. The plaintiff may challenge a government’s factual predicate on any of the following grounds.³³

- the disparity exists due to race-neutral reasons
- the methodology is flawed
- the data is statistically insignificant
- controverting data exists.

Thus, a disparity study must be analytically rigorous, at least to the extent that the data permits, if it is to withstand legal challenge.³⁴

A. Strong Basis in Evidence

Croson requires defendant jurisdictions to produce a “strong basis in evidence” that the objective of the challenged MBE program is to rectify the effects of discrimination.³⁵ The issue of whether or not the government has produced a strong basis in evidence is a question of law.³⁶ Because the sufficiency of the factual predicate supporting the MBE program is at issue, factual determinations relating to the accuracy and validity of the proffered evidence underlie the initial legal conclusion to be drawn.³⁷

The adequacy of the government’s evidence is “evaluated in the context of the breadth of the remedial program advanced by the [jurisdiction].”³⁸ The onus is upon the jurisdiction to provide a factual predicate which is sufficient in scope and precision to demonstrate that contemporaneous discrimination necessitated the adoption of the MBE program. The various factors which must be considered in developing and demonstrating a strong factual predicate in support of MBE programs are discussed in Section IV.

³³ These were the issues on which the district court in Philadelphia reviewed the disparity study before it.

³⁴ *Croson*, 488 U.S. 469.

³⁵ *Concrete Works of Colorado v. City and County of Denver*, 36 F.3d 1513 at 1522 (10th Cir. 1994), (citing *Wygant v. Jackson Board of Education*, 476 U.S. 267, 292 (1986); see *Croson* 488 U.S. at 509 (1989)).

³⁶ *Id.* (citing *Associated General Contractors v. New Haven*, 791 F.Supp. 941, 944 (D.Conn 1992)).

³⁷ *Concrete Works I*, 36 F.3d at 1522.

³⁸ *Id.* (citing *Croson* 488 U.S. at 498).



B. Ultimate Burden of Proof

The party challenging an MBE program will bear the ultimate burden of proof throughout the course of the litigation—despite the government’s obligation to produce a strong factual predicate to support its program.³⁹ The plaintiff must persuade the court that the program is constitutionally flawed by challenging the government’s factual predicate for the program or by demonstrating that the program is overly broad.

Justice O’Connor explained the nature of the plaintiff’s burden of proof in her concurring opinion in *Wygant v. Jackson Board of Education (Wygant)*.⁴⁰ She stated that following the production of the factual predicate supporting the program:

[I]t is incumbent upon the non-minority [plaintiffs] to prove their case; they continue to bear the ultimate burden of persuading the court that the [government’s] evidence did not support an inference of prior discrimination and thus a remedial purpose, or that the plan instituted on the basis of this evidence was not sufficiently “narrowly tailored.”⁴¹

In *Philadelphia*, the Third Circuit Court of Appeals clarified this allocation of the burden of proof and the constitutional issue of whether facts constitute a “strong basis” in evidence.⁴² That court wrote that the allocation of the burden of persuasion depends on the theory of constitutional invalidity that is being considered.⁴³ If the plaintiff’s theory is that an agency has adopted race-based preferences with a purpose other than remedying past discrimination, the plaintiff has the burden of convincing the court that the identified remedial motivation is a pretext and that the real motivation was something else.⁴⁴

The situation differs if the plaintiff’s theory is that an agency’s conclusions as to the existence of discrimination and the necessity of the remedy chosen have no strong basis in evidence. In such a situation, once the agency comes forward with evidence of facts alleged to justify its conclusions, the plaintiff has the burden of persuading the court that those facts are not accurate. However, the ultimate issue of whether a strong basis in evidence exists

³⁹ *Id.* (citing *Wygant*, 476 U.S. at 277-278).

⁴⁰ *Wygant v. Jackson Board of Education*, 476 U.S. 267, 293 (1986).

⁴¹ *Id.*

⁴² *Philadelphia*, 91 F.3d at 597.

⁴³ *Id.*

⁴⁴ *Id.*



is an issue of law, and the burden of persuasion in the traditional sense plays no role in the court's resolution of that ultimate issue.⁴⁵

Concrete Works II made clear that plaintiff's burden is an evidentiary one; it cannot be discharged simply by argument. The court cited its opinion in *Adarand Constructors Inc. v. Slater*, 228 F.3d 1147 (2000): "[g]eneral criticism of disparity studies, as opposed to particular evidence undermining the reliability of the particular disparity study is of little persuasive value."⁴⁶ It should also be noted that disparity studies are permissive, they do not mandate that a jurisdiction take action.⁴⁷

The Supreme Court's disposition of plaintiff's petition for *certiorari* strongly supports the conclusion that plaintiff has the burden of proof. Supreme Court review of appellate decisions is discretionary, in that four justices have to agree, so normally little can be inferred from its denial. However, *Concrete Works* is not the typical instance. Justice Scalia concurred in *Croson* that strict scrutiny was required of race-conscious contracting programs. However, his antagonism there, and over the years, to the use of race is clear. Justice Scalia's view is that governmental remedies should be limited to provable individual victims. That view is at the base of his written dissent, on which only Chief Justice Rehnquist joined, to the Court's decision not to grant *certiorari* in *Concrete Works*.⁴⁸

Justice Scalia would place the burden of proof squarely on the defendant jurisdiction when a plaintiff pleads unequal treatment. For him, the Tenth Circuit was simply wrong because the defendant should have to *prove* that there was discrimination. He takes this position despite the case law in equal employment cases, from which *Croson* was derived, that the defendant has the burden of *production*. Once the defendant satisfies that, the burden of *proof* shifts to the plaintiff. Contrary to Scalia, the Tenth Circuit's position in *Concrete Works II* is once the defendant shows "a strong basis" for concluding that MBEs are being discriminated against, the plaintiff has to put in evidence that negates its validity.

⁴⁵ At first glance, the position of the Third Circuit does not square with what the Eleventh Circuit announced as its standard in reviewing whether a jurisdiction has established the "compelling interest" required by strict scrutiny. That court said the inquiry was factual and would be reversed only if it was "clearly erroneous." However, the difference in formulation may have had to do with the angle from which the question is approached: If one starts with the disparity study – whether a compelling interest has been shown – factual issues are critical. If the focus is the remedy, because the constitutional issue of equal protection in the context of race comes into play, the review is necessarily a legal one.

⁴⁶ *Concrete Works II*, 321 F.3d at 979.

⁴⁷ *Austin Black Contractors Association vs. The City of Austin*, 78 F.3d 185 (1996). The Austin Black Contractors Association sued the City of Austin alleging racial discrimination in the awarding of the City's construction contracts. The ABCA based its complaint on the results of a historical study commissioned by the City that indicated that minorities had been statistically "under utilized" on City construction projects. As a result of the study, the ABCA argued that the City was required to adopt aggressive affirmative action programs on the United States Supreme Court decision in *Croson*. However, The Circuit Court ruled that the *Croson* Court did not indicate that such programs may be constitutionally mandated.

⁴⁸ *Concrete Works of Colorado, Inc. v. City and County of Denver, Colorado*, 321 F.3d 950 (10th Cir. 2003), *petition for cert. denied*, 540 U.S. 1027 (2003) ("*Concrete Works II*").



IV. CROSON EVIDENTIARY FRAMEWORK

Government entities must construct a strong evidentiary framework to stave off legal challenges and ensure that the adopted MBE programs comport with the requirements of the Equal Protection clause of the U.S. Constitution. The framework must comply with the stringent requirements of the strict scrutiny standard. Accordingly, there must be a strong basis in evidence and the race-conscious remedy must be “narrowly tailored,” as set forth in *Croson*. A summary of the appropriate types of evidence to satisfy the first element of the *Croson* standard follows.

A. Active or Passive Participation

Croson requires that the local entity seeking to adopt a MBE program must have perpetuated the discrimination to be remedied by the program. However, the local entity need not be an active perpetrator of such discrimination. Passive participation will satisfy this part of the Court’s strict scrutiny review.⁴⁹

An entity will be considered an “active” participant if the evidence shows that it has created barriers that actively exclude MBEs from its contracting opportunities. In addition to examining the government’s contracting record and process, MBEs who have contracted or attempted to contract with that entity can be interviewed to relay their experiences in pursuing contracting opportunities with that entity.⁵⁰

An entity will be considered to be a “passive” participant in private sector discriminatory practices if it has infused tax dollars into that discriminatory industry.⁵¹ The *Croson* Court emphasized a government’s ability to passively participate in private sector discrimination with monetary involvement, stating, “[I]t is beyond dispute that any public entity, state or federal, has a compelling interest in assuring that public dollars, drawn from tax contributions of all citizens, do not serve to finance the evil of private prejudice.”⁵²

Until *Concrete Works I*, the inquiry regarding passive discrimination was limited to the subcontracting practices of government prime contractors. In *Concrete Works I*, the Tenth Circuit considered a purely private sector definition of passive discrimination. Since no government funds were involved in the contracts analyzed in the case, the court questioned

⁴⁹ *Croson*, 488 U.S. at 509.

⁵⁰ *Wygant v. Jackson Board of Education*, 476 U.S. 267 at 275 (1985).

⁵¹ *Croson*, 488 U.S. at 492; *Coral Construction*, 941 F.2d at 916.

⁵² *Croson*, 488 U.S. at 492.



whether purely private sector discrimination is likely to be a fruitful line of inquiry.⁵³ On remand, the district court rejected the three disparity studies offered to support the continuation of Denver's M/WBE program because each focused on purely private sector discrimination. Indeed, Denver's focus on purely private sector discrimination may account for what seemed to be a shift by the court away from the standard *Croson* queries of (1) whether there was a firm basis in the entity's contracting process to conclude that discrimination existed; (2) whether race-neutral remedies would resolve what was found; and (3) whether any race-conscious remedies had to be narrowly tailored. The court noted that in the City of Denver's disparity studies the chosen methodologies failed to address the following six questions:

- 1) whether there was pervasive discrimination throughout the Denver Metropolitan Statistical Area (MSA)
- 2) were all designated groups equally affected
- 3) was such discrimination intentional
- 4) would Denver's use of such firms constitute "passive participation"
- 5) would the proposed remedy change industry practices
- 6) was the burden of compliance—which was on white male prime contractors in an intensely competitive, low profit margin business—a fair one.⁵⁴

The court concluded that the City of Denver had not documented a firm basis of identified discrimination derived from the statistics submitted.⁵⁵

However, the Tenth Circuit on appeal of that decision completely rejected the district court's analysis. The district court's queries required Denver to *prove* the existence of discrimination. Moreover, the Tenth Circuit explicitly held that "passive" participation included private sector discrimination in the marketplace. The court, relying on *Shaw v. Hunt*,⁵⁶ a post-*Croson* Supreme Court decision, wrote as follows:

⁵³ *Concrete Works I*, 36 F.3d at 1529. "What the Denver MSA data does not indicate, however, is whether there is any linkage between Denver's award of public contracts and the Denver MSA evidence of industry-wide discrimination. That is, we cannot tell whether Denver indirectly contributed to private discrimination by awarding public contracts to firms that in turn discriminated against MBE and/or WBE subcontractors in other private portions of their business or whether the private discrimination was practiced by firms who did not receive any public contracts. Neither *Croson* nor its progeny clearly state whether private discrimination that is in no way funded with public tax dollars can, by itself, provide the requisite strong basis in evidence necessary to justify a municipality's affirmative action program. A plurality in *Croson* simply suggested that remedial measures could be justified upon a municipality's showing that 'it had essentially become a "a passive participant" in a system of racial exclusion practiced by elements of the local construction industry' [citing *Croson*]. Although we do not read *Croson* as requiring the municipality to identify an exact linkage between its award of public contracts and private discrimination, such evidence would at least enhance the municipality's factual predicate for a race- and gender-conscious program. The record before us does not explain the Denver government's role in contributing to the underutilization of MBEs and WBEs in the private construction market in the Denver MSA, and this may well be a fruitful issue to explore at trial."

⁵⁴ *Concrete Works*, 86 F.Supp. 2d at 1042 (D. Colo 2000).

⁵⁵ *Id.* at 61.

⁵⁶ 517 U.S. at 519.



The *Shaw* Court did not adopt any requirement that only discrimination by the governmental entity, either directly or by utilizing firms engaged in discrimination on projects funded by the entity, was remediable. The Court, however, did set out two conditions which must be met for the governmental entity to show a compelling interest. “First, the discrimination must be identified discrimination.” *Id.* at 910. The City can satisfy this condition by identifying the discrimination “public or private, with some specificity.” *Id.* (quoting *Croson*, 488 U.S. at 504 (*emphasis added*)). The governmental entity must also have a “strong basis in evidence to conclude that remedial action was necessary.” *Id.*⁵⁷

The Tenth Circuit therefore held that the City was correct in its attempt to show that it “indirectly contributed to private discrimination by awarding public contracts to firms that in turn discriminated against M/WBE subcontractors in other private portions of their business.”⁵⁸ The court emphasized that its reading of *Croson*⁵⁹ and its own precedents supported that conclusion. Also, the court pointed out that the plaintiff, which had the burden of proof, failed to introduce controverting evidence and merely *argued* that the private sector was out of bounds and that Denver’s data was flawed.⁶⁰

The court found that the disparities in MBE private sector participation, demonstrated with rate of business formation, and lack of access to credit which effected MBEs’ ability to expand in order to perform larger contracts, gave Denver a firm basis to conclude that there was actionable private sector discrimination. For technical legal reasons,⁶¹ however, the court did not examine whether the consequent public sector remedy – i.e., one involving a goal requirement on the City of Denver’s contracts – was “narrowly tailored.” The court took this position despite plaintiff’s contention that the remedy was inseparable from the findings and that the court should have addressed the issue of whether the program was narrowly tailored.

Ten months later, in *Builders Association of Greater Chicago v. City of Chicago*,⁶² the question of whether a public sector remedy is “narrowly tailored” when it is based on purely private sector discrimination was at issue. The district court reviewed the remedies derived

⁵⁷ *Concrete Works II*, 321 F.3d at 975-76.

⁵⁸ Slip opinion, pg. 20.

⁵⁹ See also *Shaw v. Hunt*, 517 U.S. 899 (1996), which it cited.

⁶⁰ Whether Denver had the requisite strong basis to conclude that there was discrimination was a question of law; that is, it was for the Tenth Circuit to decide. The standard by which the factual record before it was reviewed was “clearly erroneous.”

⁶¹ Plaintiff had not preserved the issue on appeal. Therefore, it was no longer part of the case.

⁶² 298 F.Supp2d 725 (N.D.Ill. 2003).



from private sector practices with a more stringent scrutiny. It found that there was discrimination against minorities in the Chicago construction industry. However, it did not find the City of Chicago's subcontracting goal an appropriate remedy because it was not "narrowly tailored" to address the documented private discrimination due to lack of access to credit for MBEs. The court also criticized the remedy because it was a "rigid numerical quota," and there was no individualized review of MBE beneficiaries, citing Justice O'Connor opinion in *Gratz v. Bollinger*.⁶³

The question of whether evidence of private sector practices also arose in *Builders Ass'n of Greater Chicago v. County of Cook*.⁶⁴ In this case the Seventh Circuit cited *Associated General Contractors of Ohio v. Drabik*⁶⁵ in throwing out a 1988 County ordinance under which at least 30 percent of the value of prime contracts were to go to minority subcontractors and at least 10 percent to woman-owned businesses. Appellants argued that evidence of purely private sector discrimination justified a public sector program. However, the court pointed out that the program remedying discrimination in the private-sector would necessarily address only private-sector participation. In order to justify the public-sector remedy, the County would have had to demonstrate that it had been at least a passive participant in the discrimination by showing that it had infused tax dollars into the discriminatory private industry.

B. Systemic Discriminatory Exclusion

Croson clearly established that an entity enacting a business affirmative action program must demonstrate identified, systemic discriminatory exclusion on the basis of race or any other illegitimate criteria (arguably gender).⁶⁶ Thus, it is essential to demonstrate a pattern

⁶³ 123 S.Ct. 2411, 2431 (2003). *Croson* requires a showing that there was a strong basis for concluding that there was discrimination before a race-conscious remedy can be used in government contracting. In the University of Michigan cases that considered race-conscious admissions programs, a key element in the decisions is the Court acceptance of diversity as a constitutionally sufficient ground; it did not require a showing of past discrimination against minority applicants. If it had, the basis for a program would have disappeared. Discrimination is the historic concern of the 14th Amendment, while promoting diversity is of recent origin. The Court may have been disposed therefore to apply a more rigorous review of legislation based on diversity. The 14th Amendment's prohibitions are directed against "state action." The private sector behavior of businesses that contract with state and local governments is a conceptual step away from what it does in its public sector transactions. That distinction may lead courts to apply the *Gratz* approach of more searching scrutiny to remedial plans based on private sector contracting.

⁶⁴ 256 F.3d 642 (7th Cir. 2001).

⁶⁵ 214 F.3d 730 (6th Cir. 2000).

⁶⁶ *Croson*, 488 U.S. 469. See also *Monterey Mechanical v. Pete Wilson*, 125 F.3d 702 (9th Cir. 1997). The Fifth Circuit Court in *W.H. Scott Construction Co. v. City of Jackson, Mississippi*, 199 F.3d 206 (1999), found that the City's MBE program was unconstitutional for construction contracts because minority participation goals were arbitrarily set and not based on any objective data. Moreover, the Court noted that had the City implemented the recommendations from the disparity study it commissioned, the MBE program may have withstood judicial scrutiny (the City was not satisfied with the study and chose not to adopt its conclusions). "Had the City adopted particularized findings of discrimination within its various agencies, and set participation goals for each accordingly, our outcome today might be different. Absent such evidence in the City's construction industry, however, the City lacks the factual predicates required under the Equal Protection Clause to support the Department's 15% DBE-participation goal."



and practice of such discriminatory exclusion in the relevant market area.⁶⁷ Using appropriate evidence of the entity's active or passive participation in the discrimination, as discussed above, the showing of discriminatory exclusion must cover each racial group to whom a remedy would apply.⁶⁸ Mere statistics and broad assertions of purely societal discrimination will not suffice to support a race or gender-conscious program.

Croson enumerates several ways an entity may establish the requisite factual predicate. First, a significant statistical disparity between the number of qualified minority contractors willing and able to perform a particular service, and the number of such contractors actually engaged by an entity or by the entity's prime contractors, may support an inference of discriminatory exclusion.⁶⁹ In other words, when the relevant statistical pool is used, a showing of gross statistical disparity alone "may constitute prima facie proof of a pattern or practice of discrimination."⁷⁰

The *Croson* Court made clear that both prime and subcontracting data was relevant. The Court observed that "[w]ithout any information on minority participation in subcontracting, it is quite simply impossible to evaluate overall minority representation in the city's construction expenditures."⁷¹ Subcontracting data is also an important means by which to assess suggested future remedial actions. Since the decision makers are different for the awarding of prime and subcontracts, the remedies for discrimination identified at a prime versus subcontractor level might also be different.

Second, "evidence of a pattern of individual discriminatory acts can, if supported by appropriate statistical proof, lend support to a local government's determination that broader remedial relief is justified."⁷² Thus, if an entity has statistical evidence that non-minority

In 1996, Houston Metro had adopted a study done for the City of Houston whose statistics were limited to aggregate figures that showed *income* disparity between groups, without making any connection between those statistics and City's contracting policies. The disadvantages cited that M/WBEs faced in contracting with the City also applied to small businesses. Under *Croson*, that would have pointed to race-neutral remedies. The additional data on which Houston Metro relied was even less availing. Its own expert contended that the ratio of lawsuits involving private discrimination to total lawsuits and ratio of unskilled black wages to unskilled white wages established that the correlation between low rates of black self-employment was due to discrimination. Even assuming that nexus, there is nothing in *Croson* that accepts a low number of MBE business formation as a basis for a race conscious remedy.

⁶⁷ *Id.* at 509.

⁶⁸ *Id.* at 506. As the Court said in *Croson*, "[t]he random inclusion of racial groups that, as a practical matter, may never have suffered from discrimination in the construction industry in Richmond suggests that perhaps the city's purpose was not in fact to remedy past discrimination." See *North Shore Concrete and Assoc. v. City of New York*, 1998 U.S. Dist. LEXIS 6785 (EDNY 1998), which rejected the inclusion of Native Americans and Alaskan Natives in the City's program, citing *Croson*.

⁶⁹ *Id.* at 509.

⁷⁰ *Id.* at 501 (citing *Hazelwood School District v. United States*, 433 U.S. 299, 307-08 (1977)).

⁷¹ *Croson*, 488 U.S. at 502-03.

⁷² *Id.* at 509.



contractors are systematically excluding minority businesses from subcontracting opportunities, it may act to end the discriminatory exclusion.⁷³ Once an inference of discriminatory exclusion arises, the entity may act to dismantle the closed business system.

In *Coral Construction*, the Ninth Circuit Court of Appeals further elaborated upon the type of evidence needed to establish the factual predicate that justifies a race-conscious remedy. The court held that both statistical and anecdotal evidence should be relied upon in establishing systemic discriminatory exclusion in the relevant marketplace as the factual predicate for an MBE program.⁷⁴ The court explained that statistical evidence, standing alone, often does not account for the complex factors and motivations guiding contracting decisions, many of which may be entirely race-neutral.⁷⁵

Likewise, anecdotal evidence, standing alone, is unlikely to establish a systemic pattern of discrimination.⁷⁶ Nonetheless, anecdotal evidence is important because the individuals who testify about their personal experiences bring “the cold numbers convincingly to life.”⁷⁷

1. Geographic Market

Croson did not speak directly to how the geographic market is to be determined. In *Coral Construction*, the Court of Appeals held that “an MBE program must limit its geographical scope to the boundaries of the enacting jurisdiction.”⁷⁸ Conversely, in *Concrete Works I*, the Tenth Circuit Court of Appeals specifically approved the Denver MSA as the appropriate market area since 80 percent of the construction contracts were let there.⁷⁹

Read together, these cases support a definition of market area that is reasonable rather than dictate a specific formula. Since *Croson* and its progeny did not provide a bright line rule for local market area, that determination should be fact-based. An entity may limit consideration of evidence of discrimination within its own jurisdiction.⁸⁰ Extra-

⁷³ *Id.*

⁷⁴ *Coral Construction*, 941 F.2d at 919.

⁷⁵ *Id.*

⁷⁶ *Id.*

⁷⁷ *Id.* (quoting *International Brotherhood of Teamsters v. United States (Teamsters)*, 431 U.S. 324, 339 (1977)).

⁷⁸ *Coral Construction*, 941 F.2d at 925.

⁷⁹ *Concrete Works*, 823 F.Supp. 821, 835-836 (D.Colo. 1993); rev'd on other grounds, 36 F.3d 1513 (10th Cir. 1994).

⁸⁰ *Cone Corporation v. Hillsborough County*, 908 F.2d 908 (11th Cir. 1990); *Associated General Contractors v. Coalition for Economic Equity*, 950 F.2d 1401 (9th Cir. 1991).



jurisdictional evidence may be permitted where doing so is reasonably related to where the jurisdiction contracts.⁸¹

2. Current Versus Historical Evidence

In assessing the existence of identified discrimination through demonstration of a disparity between M/WBE utilization and availability, it may be important to examine disparity data both prior to and after the entity's current M/WBE program was enacted. This will be referred to as "pre-program" versus "post-program" data.

On the one hand, *Croson* requires that an MBE program be "narrowly tailored" to remedy current evidence of discrimination.⁸² Thus, goals must be set according to the evidence of disparity found. For example, if there is a current disparity between the percentage of an entity's utilization of Hispanic construction contractors and the availability of Hispanic construction contractors in that entity's marketplace, then that entity can set a goal to bridge that disparity.

It is not mandatory to examine a long history of an entity's utilization to assess current evidence of discrimination. In fact, *Croson* indicates that it may be legally fatal to justify an M/WBE program based upon outdated evidence.⁸³ Therefore, the most recent two or three years of an entity's utilization data would suffice to determine whether a statistical disparity exists between current M/WBE utilization and availability.⁸⁴

Pre-program data regarding an entity's utilization of M/WBEs prior to enacting the M/WBE program may be relevant to assessing the need for the agency to keep such a program intact. A 1992 opinion by Judge Henderson of the U.S. District Court for the Northern District of California, *RGW Construction v. San Francisco Bay Area Rapid Transit District (BART)*,⁸⁵ set forth the possible significance of statistical data during an entity's "pre-program" years.

⁸¹ There is a related question of which firms can participate in a remedial program. In *Coral Construction*, the Court held that the definition of "minority business" used in King County's MBE program was over-inclusive. The Court reasoned that the definition was overbroad because it included businesses other than those who were discriminated against in the King County business community. The program would have allowed, for instance, participation by MBEs who had no prior contact with the County. Hence, location within the geographic area is not enough. An MBE had to have shown that it previously sought business, or is currently doing business, in the market area.

⁸² See *Croson*, 488 U.S. at 509-10.

⁸³ *Id.* at 499 (stating that "[i]t is sheer speculation how many minority firms there would be in Richmond absent past societal discrimination").

⁸⁴ See *AGCC II*, 950 F.2d 1401 at 1414 (consultant study looked at City's MBE utilization over a one year period). Ultimately dismissing plaintiff's case in *Behavioral Interventions v. Missouri Office of Administration*, Case No. 04-0872-CV-W-GAF (W. D. Mo. 2005), the district court criticized the age of the data on which the program was based (it was nine years old) (May 17, 2005). It is important in such situations that the jurisdiction has an updated study.

⁸⁵ See November 25, 1992, Order by Judge Thelton Henderson (on file with Mason Tillman Associates).



Judge Henderson opined that statistics that provide data on a period when no M/WBE goals were operative are often the most relevant data in evaluating the need for remedial action by an entity. Indeed, “to the extent that the most recent data reflect the impact of operative DBE goals, then such data are not necessarily a reliable basis for concluding that remedial action is no longer warranted.”⁸⁶ Judge Henderson noted that this is particularly so given the fact that M/WBEs report that they are seldom or never used by a majority prime contractor without M/WBE goals. That this may be the case suggests a possibly fruitful line of inquiry: an examination of whether different programmatic approaches in the same market area led to different outcomes in M/WBE participation. The Tenth Circuit came to the same conclusion in *Concrete Works II*. It is permissible for a study to examine programs where there were no goals.

Similarly, the Eleventh Circuit in *Dade County* cautions that using post-enactment evidence (post-program data) may mask discrimination that might otherwise be occurring in the relevant market. Still, the court agreed with the district court that it was not enough to speculate on what MBE utilization would have been in the absence of the program.”⁸⁷

Thus, an entity should look both at pre-program and post-program data in assessing whether discrimination exists currently and analyze whether it would exist absent an M/WBE program.

3. Statistical Evidence

To determine whether statistical evidence is adequate to give rise to an inference of discrimination, courts have looked to the “disparity index,” which consists of the percentage of minority (or women) contractor participation in local contracts divided by the percentage of minority (or women) contractor availability or composition in the population of available firms in the local market area.⁸⁸ Disparity indexes have been found highly probative evidence of discrimination where they ensure that the “relevant statistical pool” of minority (or women) contractors is being considered.

The Third Circuit Court of Appeals, in *Philadelphia*, ruled that the “relevant statistical pool” includes those businesses that not only exist in the marketplace, but that are qualified

⁸⁶ *Id.*

⁸⁷ *Dade County*, 122 F.3d at 912.

⁸⁸ Although the disparity index is a common category of statistical evidence considered, other types of statistical evidence have been taken into account. In addition to looking at Dade County’s contracting and subcontracting statistics, the district court also considered marketplace data statistics (which looked at the relationship between the race, ethnicity, and gender of surveyed firm owners and the reported sales and receipts of those firms), the County’s Wainwright study (which compared construction business ownership rates of M/WBEs to those of non-M/WBEs and analyzed disparities in personal income between M/WBE and non-M/WBE business owners), and the County’s Brimmer Study (which focused only on Black-owned construction firms and looked at whether disparities existed when the sales and receipts of Black-owned construction firms in Dade County were compared with the sales and receipts of all Dade County construction firms).



and interested in performing the public agency's work. In that case, the Third Circuit rejected a statistical disparity finding where the pool of minority businesses used in comparing utilization to availability were those that were merely licensed to operate in the City of Philadelphia. Merely being licensed to do business with the City does not indicate either a willingness or capability to do work for the City. As such, the Court concluded this particular statistical disparity did not satisfy *Croson*.⁸⁹

Statistical evidence demonstrating a disparity between the utilization and availability of M/WBEs can be shown in more than one way. First, the number of M/WBEs utilized by an entity can be compared to the number of available M/WBEs. This is a strict *Croson* "disparity" formula. A significant statistical disparity between the number of MBEs that an entity utilizes in a given product/service category and the number of available MBEs in the relevant market area specializing in the specified product/service category would give rise to an inference of discriminatory exclusion.

Second, M/WBE dollar participation can be compared to M/WBE availability. This could show a disparity between the award of contracts by an entity in the relevant locality/market area to available majority contractors and the award of contracts to M/WBEs. Thus, in *AGCC II*, an independent consultant's study compared the number of available MBE prime contractors in the construction industry in San Francisco with the amount of contract dollars awarded to San Francisco MBEs over a one-year period. The study found that available MBEs received far fewer construction contract dollars in proportion to their numbers than their available non-minority counterparts.⁹⁰

Whether a disparity index supports an inference that there is discrimination in the market turns not only on what is being compared, but also on whether any disparity is statistically significant. In *Croson*, Justice O'Connor opined, "[w]here the gross statistical disparities can be shown, they alone, in a proper case, may constitute a *prima facie* proof of a pattern or practice of discrimination."⁹¹ However, the Court has not assessed nor attempted to cast bright lines for determining if a disparity index is sufficient to support an inference of discrimination. Rather, the analysis of the disparity index and the finding of its significance are judged on a case by case basis.⁹²

⁸⁹ *Philadelphia*, 91 F.3d 586. The courts have not spoken to the non-M/WBE component of the disparity index. However, if only as a matter of logic, the "availability" of non-M/WBEs requires that their willingness to be government contractors be established. The same measures used to establish the interest of M/WBEs should be applied to non-M/WBEs.

⁹⁰ *AGCC II*, 950 F.2d 1401 at 1414. Specifically, the study found that MBE availability was 49.5 percent for prime construction, but MBE dollar participation was only 11.1 percent; that MBE availability was 36 percent prime equipment and supplies, but MBE dollar participation was 17 percent; and that MBE availability for prime general services was 49 percent, but dollar participation was 6.2 percent.

⁹¹ *Croson*, 488 U.S. at 501 (quoting *Hazelwood School District v. United States*, 433 U.S. 299, 307-308 (1977)).

⁹² *Concrete Works*, 36 F.3d at 1522.



Following the dictates of *Croson*, courts may carefully examine whether there is data that shows that M/WBEs are ready, willing, and able to perform.⁹³ *Concrete Works I* made the same point: capacity—i.e., whether the firm is “able to perform—is a ripe issue when a disparity study is examined on the merits:

[Plaintiff] has identified a legitimate factual dispute about the accuracy of Denver’s data and questioned whether Denver’s reliance on the percentage of MBEs and WBEs available in the market place overstates “the ability of MBEs or WBEs to conduct business relative to the industry as a whole because M/WBEs tend to be smaller and less experienced than nonminority owned firms.” In other words, a disparity index calculated on the basis of the absolute number of MBEs in the local market may show greater underutilization than does data that takes into consideration the size of MBEs and WBEs.⁹⁴

Notwithstanding that appellate concern, the disparity studies before the district court on remand did not examine the issue of M/WBE capacity to perform Denver’s public sector contracts. As mentioned above, they were focused on the private sector, using census-based data and Dun & Bradstreet statistical extrapolations.

The Sixth Circuit Court of Appeals, in *Drabik*, concluded that for statistical evidence to meet the legal standard of *Croson*, it must consider the issue of capacity.⁹⁵ The State’s factual predicate study based its statistical evidence on the percentage of M/WBE businesses in the population. The statistical evidence did not take into account the number of minority businesses that were construction firms, let alone how many were qualified, willing, and able to perform state contracts.⁹⁶ The court reasoned as follows:

Even statistical comparisons that might be apparently more pertinent, such as with the percentage of all firms qualified in some minimal sense, to perform the work in question, would also fail to satisfy the Court’s criteria. If MBEs comprise 10% of the total number of contracting firms in the State, but only get 3% of the dollar value of certain contracts, that does not alone show discrimination, or even disparity. It does not account for the relative

⁹³ The *Philadelphia* study was vulnerable on this issue.

⁹⁴ *Concrete Works*, 36 F.3d at 1528.

⁹⁵ See *Drabik*, 214 F.3d 730. The Court reviewed Ohio’s 1980, pre-*Croson*, program, which the Sixth Circuit found constitutional in *Ohio Contractors Ass’n v. Keip*, 1983 U.S. App. LEXIS 24185 (6th Cir. 1983), finding the program unconstitutional under *Croson*.

⁹⁶ *Id.*



size of the firms, either in terms of their ability to do particular work or in terms of the number of tasks they have resources to complete.⁹⁷

Further, *Drabik* also pointed out that the State not only relied upon the *wrong type of statistical data* but that the data was more than twenty years old.

The appellate opinions in *Philadelphia*⁹⁸ and *Dade County*,⁹⁹ regarding disparity studies involving public sector contracting, are particularly instructive in defining availability.

First, in *Philadelphia*, the earlier of the two decisions, contractors' associations challenged a city ordinance created set-asides for minority subcontractors on city public works contracts, and summary judgment was granted for the contractors.¹⁰⁰ The Third Circuit upheld the third appeal, affirming that there was no firm basis in evidence for finding that race-based discrimination existed to justify a race-based program, and that the program was not narrowly tailored to address past discrimination by the City.¹⁰¹

The Third Circuit reviewed the evidence of discrimination in prime contracting and stated that whether it is strong enough to infer discrimination is a "close call" which the court "chose not to make."¹⁰² It was unnecessary to make this determination because the court found that even if there was a strong basis in evidence for the program, a subcontracting program was not narrowly tailored to remedy prime contracting discrimination.

When the court looked at subcontracting, it found that a firm basis in evidence did not exist. The only subcontracting evidence presented was a review of a random 25 to 30 percent of project engineer logs on projects over \$30,000. The consultant reviewer determined that no MBEs were used during the study period based upon the consultant's recollection regarding whether the owners of the utilized firms were MBEs. The court found this evidence insufficient as a basis for finding that prime contractors in the market were discriminating against subcontractors.¹⁰³

⁹⁷ *Id.* at 736.

⁹⁸ *Philadelphia*, 6 F.3d 990 (3rd Cir. 1993), on remand, 893 F.Supp. 419 (E.D. Penn. 1995), aff'd, 91 F.3d 586 (3rd Cir. 1996).

⁹⁹ *Dade County*, 943 F.Supp. 1546.

¹⁰⁰ *Philadelphia*, 91 F.3d 586.

¹⁰¹ *Id.*

¹⁰² *Id.* at 605.

¹⁰³ Another problem with the program was that the 15 percent goal was not based on data indicating that minority businesses in the market area were available to perform 15 percent of the City's contracts. The court noted, however, that "we do not suggest that the percentage of the preferred group in the universe of qualified contractors is necessarily the ceiling for all set-asides." The court also found the program flawed because it did not provide sufficient waivers and exemptions, as well as consideration of race neutral alternatives.



The Third Circuit has recognized that consideration of qualifications can be approached at different levels of specificity, and the practicality of the approach also should be weighed. The Court of Appeals found that “[i]t would be highly impractical to review the hundreds of contracts awarded each year and compare them to each and every MBE;” and it was a “reasonable choice” under the circumstances to use a list of certified contractors as a source for available firms.¹⁰⁴ Although theoretically it may have been possible to adopt a more refined approach, the court found that using the list of certified contractors was a rational approach to identifying qualified firms.

Furthermore, the court discussed whether bidding was required in prime construction contracts as the measure of “willingness,” and stated, “[p]ast discrimination in a marketplace may provide reason to believe the minorities who would otherwise be willing are discouraged from trying to secure work.”¹⁰⁵

In addition, the court found that a program certifying MBEs for federal construction projects was a satisfactory measure of capability of MBE firms.¹⁰⁶ In order to qualify for certification, the federal certification program required firms to detail their bonding capacity, size of prior contracts, number of employees, financial integrity, and equipment owned. According to the court, “the process by which the firms were certified [suggests that] those firms were both qualified and willing to participate in public work projects.”¹⁰⁷ The court found certification to be an adequate process of identifying capable firms, recognizing that the process may even understate the availability of MBE firms.¹⁰⁸ Therefore, the court was somewhat flexible in evaluating the appropriate method of determining the availability of MBE firms in the statistical analysis of a disparity.

In *Dade County*, the district court held that the County had not shown the compelling interest required to institute a race-conscious program because the statistically significant disparities upon which the County relied disappeared when the size of the M/WBEs was taken into account.¹⁰⁹ The *Dade County* district court accepted the Disparity Study’s limiting of “available” prime construction contractors to those that had bid at least once in the study period. However, it must be noted that relying solely on bidders to identify

¹⁰⁴ *Philadelphia*, 91 F.3d at 603.

¹⁰⁵ *Id.*

¹⁰⁶ *Id.*

¹⁰⁷ *Id.*

¹⁰⁸ *Id.*

¹⁰⁹ *Engineering Contractors Association of South Florida, Inc. et al. v. Metropolitan Dade County*, 943 F. Supp. 1546 (S.D. Florida 1996).



available firms may have limitations. If the solicitation of bidders is biased, then the results of the bidding process will be biased.¹¹⁰ In addition, a comprehensive count of bidders is dependent on the adequacy of the agencies' record keeping.¹¹¹

The appellate court in *Dade County* did not determine whether the County presented sufficient evidence to justify the M/WBE program. It merely ascertained that the lower court was not clearly erroneous in concluding that the County lacked a strong basis in evidence to justify race-conscious affirmative action. The appellate court did *not* prescribe the district court's analysis or any other specific analysis for future cases.

C. Anecdotal Evidence

In *Croson*, Justice O'Connor opined that "evidence of a pattern of individual discriminatory acts can, if supported by appropriate statistical proof, lend support to a local government's determination that broader remedial relief is justified."¹¹² Anecdotal evidence should be gathered to determine if minority contractors are systematically being excluded from contracting opportunities in the relevant market area. As will be discussed below, anecdotal evidence will not suffice standing alone to establish the requisite predicate for a race conscious program. Its great value lies in pointing to remedies that are 'narrowly tailored', the second prong of a *Croson* study.

The following types of anecdotal evidence have been presented, and relied upon by the Ninth Circuit, in both *Coral Construction* and *AGCC II*, to justify the existence of an M/WBE program:

- M/WBEs denied contract despite being the low bidder – *Philadelphia*¹¹³
- Prime contractors showing MBE bids to non-minority subcontractors to find a non-minority to underbid the MBEs – *Cone Corporation v. Hillsborough County*¹¹⁴

¹¹⁰ Cf. *League of United Latin American Citizens v. Santa Ana*, 410 F.Supp. 873, 897 (C.D. Cal. 1976); *Reynolds v. Sheet Metal Workers, Local 102*, 498 F.Supp 952, 964 n. 12 (D. D.C. 1980), aff'd, 702 F.2d 221 (D.C. Cir. 1981). (Involving the analysis of available applicants in the employment context).

¹¹¹ Cf. *EEOC v. American Nat'l Bank*, 652 F.2d 1176, 1196-1197 (4th Cir.), cert. denied, 459 U.S. 923 (1981). (In the employment context, actual applicant flow data may be rejected where race coding is speculative or nonexistent).

¹¹² *Croson*, 488 U.S. at 509. The Court specifically cited to *Teamsters*, 431 U.S. at 338.

¹¹³ *Philadelphia*, 6 F.3d at 1002.

¹¹⁴ *Cone Corporation v. Hillsborough County*, 908 F.2d at 916 (11th Cir.1990).



- M/WBEs' inability to obtain contracts for private sector work – *Coral Construction*¹¹⁵
- M/WBEs told they were not qualified although they were later found to be qualified when evaluated by outside parties – *AGCC*¹¹⁶
- Attempts to circumvent M/WBE project goals – *Concrete Works I*¹¹⁷
- Harassment of M/WBEs by an entity's personnel to discourage them from bidding on entity's contracts – *AGCC*¹¹⁸

Remedial measures fall along a sliding scale determined by their intrusiveness on non-targeted groups. At one end of the spectrum are race-neutral measures and policies such as outreach to the M/WBE community. Set-asides are at the other end of the spectrum. Race-neutral measures, by definition, are accessible to all segments of the business community regardless of race. They are not intrusive, and in fact, require no evidence of discrimination before implementation. Conversely, race-conscious measures such as set-asides fall at the other end of the spectrum and require a larger amount of evidence.¹¹⁹

Courts must assess the extent to which relief disrupts settled “rights and expectations” when determining the appropriate corrective measures.¹²⁰ Presumably, courts would look more favorably upon anecdotal evidence which supports a less intrusive program than a more intrusive one. For example, if anecdotal accounts related experiences of discrimination in obtaining bonds this may be sufficient evidence to support a bonding program that assists M/WBEs. However, these accounts would not be evidence of a statistical availability that would justify a racially limited program such as a set-aside.

¹¹⁵ For instance, where a small percentage of an MBE or WBE's business comes from private contracts and most of its business comes from race or gender-based set-asides, this would demonstrate exclusion in the private industry. *Coral Construction*, 941 F.2d 910 at 933 (WBE's affidavit indicated that less than 7 percent of the firm's business came from private contracts and that most of its business resulted from gender-based set-asides).

¹¹⁶ *AGCC II*, 950 F.2d at 1415.

¹¹⁷ *Concrete Works*, 36 F.3d at 1530.

¹¹⁸ *AGCC II*, 950 F.2d at 1415.

¹¹⁹ Cf. *AGCC II*, 950 F.2d at 1417-18 (in finding that an ordinance providing for bid preferences was narrowly tailored, the Ninth Circuit stated that the program encompassed the required flexibility and stated that “the burdens of the bid preferences on those not entitled to them appear relatively light and well distributed. . . . In addition, in contrast to remedial measures struck down in other cases, those bidding have no settled expectation of receiving a contract. [Citations omitted.]”).

¹²⁰ *Wygant*, 476 U.S. at 283.



As noted above, in *Croson*, the Supreme Court found that Richmond’s MBE program was unconstitutional because the City lacked proof that race-conscious remedies were justified. However, the Court opined that “evidence of a pattern of individual discriminatory acts can, if supported by appropriate statistical proof, lend support to a local government’s determination that broader remedial relief is justified.”¹²¹

In part, it was the absence of such evidence that proved lethal to the program. The Supreme Court stated that “[t]here was no direct evidence of race discrimination on the part of the city in letting contracts or any evidence that the city’s prime contractors had discriminated against minority-owned subcontractors.”¹²²

This was not the situation confronting the Ninth Circuit in *Coral Construction*. There, the 700-plus page appellate record contained the affidavits of “at least 57 minority or women contractors, each of whom complains in varying degree of specificity about discrimination within the local construction industry. These affidavits certainly suggest that ongoing discrimination may be occurring in much of the King County business community.”¹²³

Nonetheless, this anecdotal evidence standing alone was insufficient to justify King County’s MBE program since “[n]otably absent from the record, however, is *any* statistical data in support of the County’s MBE program.”¹²⁴ After noting the Supreme Court’s reliance on statistical data in Title VII employment discrimination cases, and cautioning that statistical data must be carefully used, the Court elaborated on its mistrust of pure anecdotal evidence:

Unlike the cases resting exclusively upon statistical deviations to prove an equal protection violation, the record here contains a plethora of anecdotal evidence. However, anecdotal evidence, standing alone, suffers the same flaws as statistical evidence. Indeed, anecdotal evidence may even be less probative than statistical evidence in the context of proving discriminatory patterns or practices.¹²⁵

The Court concluded its discourse on the potency of anecdotal evidence in the absence of a statistical showing of disparity by observing that “rarely, if ever, can such evidence show

¹²¹ *Croson*, 488 U.S. at 509, citing *Teamsters*, 431 U.S. at 338.

¹²² *Id.* at 480.

¹²³ *Coral Construction*, 941 F.2d at 917-18.

¹²⁴ *Id.* at 918 (emphasis added) (additional statistical evidence gathered after the program had been implemented was also considered by the court and the case was remanded to the lower court for an examination of the factual predicate).

¹²⁵ *Id.* at 919.



a systemic pattern of discrimination necessary for the adoption of an affirmative action plan.”¹²⁶

Two other circuit courts also suggested that anecdotal evidence might be dispositive, while rejecting it in the specific case before them. For example, in *Contractors Ass’n*, the Third Circuit Court of Appeals noted that the Philadelphia City Council had “received testimony from at least fourteen minority contractors who recounted personal experiences with racial discrimination,” which the district court had “discounted” because it deemed this evidence to be “impermissible” for consideration under *Croson*.¹²⁷ The circuit court disapproved of the district court’s actions because in its view the court’s rejection of this evidence betrayed the court’s role in disposing of a motion for summary judgment.¹²⁸ “Yet,” the circuit court stated:

given *Croson*’s emphasis on statistical evidence, even had the district court credited the City’s anecdotal evidence, we do not believe this amount of anecdotal evidence is sufficient to satisfy strict scrutiny [quoting *Coral*, supra]. Although anecdotal evidence alone may, in an exceptional case, be so dominant or pervasive that it passes muster under *Croson*, it is insufficient here.¹²⁹

The D.C. Circuit Court echoed the Ninth Circuit’s acknowledgment of the rare case in which anecdotal evidence is singularly potent in *O’Donnell Construction v. District of Columbia*.¹³⁰ The court found that in the face of conflicting statistical evidence, the anecdotal evidence there was not sufficient:

It is true that in addition to statistical information, the Committee received testimony from several witnesses attesting to problems they faced as minority contractors. Much of the testimony related to bonding requirements and other structural impediments any firm would have to overcome, no matter what the race of its owners. The more specific testimony about discrimination by white firms could not in itself support an industry-wide remedy [quoting *Coral*]. Anecdotal evidence is most useful as a supplement to strong statistical evidence—which the Council did not produce in this case.¹³¹

¹²⁶ *Id.*

¹²⁷ *Philadelphia*, 6 F.3d at 1002.

¹²⁸ *Id.* at 1003.

¹²⁹ *Id.*

¹³⁰ 963 F.2d at 427 (D.C. Cir.1992).

¹³¹ *Id.*



The Eleventh Circuit is also in accord. In applying the “clearly erroneous” standard to its review of the district court’s decision in *Dade County*, it commented that “[t]he picture painted by the anecdotal evidence is not a good one.”¹³² However, it held that this was not the “exceptional case” where, unreinforced by statistics, the anecdotal evidence was enough.¹³³

In *Concrete Works I*, the Tenth Circuit Court of Appeals described the type of anecdotal evidence that is most compelling: evidence within a statistical context. In approving of the anecdotal evidence marshaled by the City of Denver in the proceedings below, the court recognized that “[w]hile a factfinder should accord less weight to personal accounts of discrimination that reflect isolated incidents, anecdotal evidence of a municipality’s institutional practices carries more weight due to the systemic impact that such institutional practices have on market conditions.”¹³⁴ The court noted that the City had provided such systemic evidence.

The Ninth Circuit Court of Appeals has articulated what it deems to be permissible anecdotal evidence in *AGCC II*.¹³⁵ There, the court approved a “vast number of individual accounts of discrimination” which included numerous reports of MBEs denied contracts despite being the low bidder; MBEs told they were not qualified although they were later found qualified when evaluated by outside parties; MBEs refused work even after they were awarded the contracts as low bidder; and MBEs being harassed by city personnel to discourage them from bidding on city contracts. On appeal, the City points to numerous individual accounts of discrimination to substantiate its findings that discrimination exists in the city’s procurement processes; an “old boy’s network” still exists; and racial discrimination is still prevalent within the San Francisco construction industry.¹³⁶ Based on *AGCC II*, it would appear that the Ninth Circuit’s standard for acceptable anecdotal evidence is more lenient than other Circuits that have considered the issue.

Taken together, these statements constitute a taxonomy of appropriate anecdotal evidence. The cases suggest that, to be optimally persuasive, anecdotal evidence must satisfy six particular requirements.¹³⁷ These requirements are that the accounts:

¹³² *Engineering Contractors Ass’n of South Florida v. Metropolitan Dade County*, 943 F.Supp 1546 (S.D. Fla. 1996), aff’d, 122 F.3d 895 (11th Cir. 1997).

¹³³ *Id.* at 926.

¹³⁴ *Concrete Works I*, 36 F.3d at 1530.

¹³⁵ *AGCC II*, 950 F.2d 1401.

¹³⁶ *Id.* at 1415.

¹³⁷ *Philadelphia*, 6 F.3d at 1003. The anecdotal evidence must be “dominant or pervasive.”



- C are gathered from minority contractors, preferably those that are “qualified”¹³⁸
- C concern specific, verifiable instances of discrimination¹³⁹
- C involve the actions of governmental officials¹⁴⁰
- C involve events within the relevant jurisdiction’s market area¹⁴¹
- C discuss the harm that the improper conduct has inflicted on the businesses in question¹⁴² and
- C collectively reveal that discriminatory exclusion and impaired contracting opportunities are systemic rather than isolated or sporadic¹⁴³

Given that neither *Croson* nor its progeny identify the circumstances under which anecdotal evidence alone will carry the day, it is not surprising that none of these cases explicate bright line rules specifying the quantity of anecdotal evidence needed to support a race-conscious remedy. However, the foregoing cases, and others, provide some guidance by implication.

Philadelphia makes clear that 14 accounts will not suffice.¹⁴⁴ While the matter is not free of countervailing considerations, 57 accounts, many of which appeared to be of the type called for above, were insufficient to justify the program in *Coral Construction*. The number of anecdotal accounts relied upon by the district court in approving Denver’s M/WBE program in *Concrete Works I* is unclear, but by one count the number might have

¹³⁸ *Philadelphia*, 91 F.3d at 603.

¹³⁹ *Coral Construction*, 941 F.2d at 917-18. *But see Concrete Works II*, 321 F.3d at 989. “There is no merit to [plaintiff’s] argument that the witnesses accounts must be verified to provide support for Denver’s burden.”

¹⁴⁰ *Croson*, 488 U.S. at 509.

¹⁴¹ *Coral Construction*, 941 F.2d at 925.

¹⁴² *O’Donnell*, 963 F.2d at 427.

¹⁴³ *Coral Construction*, 941 F.2d at 919.

¹⁴⁴ *Philadelphia*, 6 F.3d. at 1002-03.



exceeded 139.¹⁴⁵ It is, of course, a matter of speculation as to how many of these accounts were indispensable to the court's approval of the Denver M/WBE program.

In addition, as noted above, the quantum of anecdotal evidence that a court would likely find acceptable may depend on the remedy in question. The remedies that are least burdensome to non-targeted groups would likely require a lesser degree of evidence. Those remedies that are more burdensome on the non-targeted groups would require a stronger factual basis likely extending to verification.

V. CONSIDERATION OF RACE-NEUTRAL OPTIONS

A remedial program must address the source of the disadvantage faced by minority or woman owned businesses. If it is found that race discrimination places MBEs at a competitive disadvantage, a MBE program may seek to counteract the situation by providing MBEs with a counterbalancing advantage.¹⁴⁶

On the other hand, a M/WBE program cannot stand if the sole barrier to minority or woman business participation is a barrier which is faced by all new businesses, regardless of ownership.¹⁴⁷ If the evidence demonstrates that the sole barrier to M/WBE participation is that M/WBE's disproportionately lack capital, or cannot meet bonding requirements, then only a race-neutral program of financing for all small firms would be justified.¹⁴⁸ In other words, if the barriers to minority participation are race-neutral, then the program must be race-neutral or contain race-neutral aspects.

The requirement that race neutral measures be considered does not mean that they must be exhausted before race conscious remedies can be employed. As the district court recently wrote in *Hershell Gill Consulting Engineers, Inc. v. Miami-Dade County*:

¹⁴⁵ The Denver City Council enacted its M/WBE ordinance in 1990. The program was based on the results of public hearings held in 1983 and 1988 at which numerous people testified (approximately 21 people and at least 49 people, respectively), and on a disparity study performed in 1990. See *Concrete Works of Colorado v. Denver*, 823 F.Supp. 821, 833-34. The disparity study consultant examined all of this preexisting data, presumably including the anecdotal accounts from the 1983 and 1988 public hearings, as well as the results of its own 69 interviews, in preparing its recommendations. *Id.* at 833-34. Thus, short of analyzing the record in the case, it is not possible to determine a minimum number of accounts because it is not possible to ascertain the number of consultant interviews and anecdotal accounts that are recycled statements or statements from the same people. Assuming no overlap in accounts, however, and also assuming that the disparity study relied on prior interviews in addition to its own, the number of M/WBEs interviewed in this case could be as high as 139, and, depending on the number of new people heard by the Denver Department of Public Works in March 1988 (see *id.* at 833), the number might have been even greater.

¹⁴⁶ *AGCC II*, 950 F.2d at 1404.

¹⁴⁷ *Croson*, 488 U.S. at 508.

¹⁴⁸ *Id.* at 507.



The Supreme Court has recently explained that although ‘narrow tailoring does not require exhaustion of every conceivable race-neutral alternative’ it ‘does require serious, good faith consideration of workable race-neutral alternatives that will achieve ... diversity[.]’ *Grutter*, 123 S.Ct, at 2344, 2345. The County has failed to show the necessity for the relief it has chosen, and the efficacy of alternative remedies has not been sufficiently explored.¹⁴⁹

If the barriers appear race-related, but are not systemic, then the remedy should be aimed at the specific arena in which exclusion or disparate impact has been found. If the evidence shows that in addition to capital and bonding requirements, which are race-neutral, M/WBEs also face race discrimination in the awarding of contracts, then a race-conscious program will stand, so long as it also includes race-neutral measures to address the capital and bonding barriers.¹⁵⁰

The Ninth Circuit Court of Appeals in *Coral Construction* ruled that there is no requirement that an entity exhaust every possible race-neutral alternative.¹⁵¹ Instead, an entity must make a serious, good faith consideration of race-neutral measures in enacting an MBE program. Thus, in assessing low MBE utilization, it is imperative to examine barriers to MBE participation that go beyond “small business problems.” The impact on the distribution of contracts of programs that have been implemented to improve MBE utilization should also be measured.¹⁵²

VI. CONCLUSION

The decision of the U.S. Supreme Court in the *Croson* case changed the legal landscape for business affirmative action programs and altered the authority of local governments to institute remedial race-conscious public contracting programs. This chapter has examined what *Croson* and its progeny require of a disparity study if it is to serve as legal justification for a race (and gender)-conscious affirmative action program for the City of Houston. Great care must be exercised in determining whether discrimination has been “identified.” If it has, race-neutral remedies have to be considered, and any race-conscious remedy must be “narrowly tailored.”

¹⁴⁹ *Hershell Gill*, 333 F.Supp. 2d 1305, 1330 (S.D.Fla. 2004).

¹⁵⁰ *Id.* (upholding MBE program where it operated in conjunction with race-neutral measures aimed at assisting all small businesses).

¹⁵¹ *Coral Construction Co. v. King County*, 941 F.2d 910 (9th Cir. 1991).

¹⁵² *Dade County*, 122 F.3d at 927. At the same time, the Eleventh Circuit’s caveat in *Dade County* should be kept in mind: “Supreme Court decisions teach that a race-conscious remedy is not merely one of many equally acceptable medications that a government may use to treat race-based problems. Instead, it is the strongest of medicines, with many potentially harmful side-effects, and must be reserved to those severe cases that are highly resistant to conventional treatment.” For additional guidance, see *supra* the discussion of narrow tailoring in *Concrete Works, Adarand,, County of Cook, City of Chicago*.



VII. LIST OF CASES

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2

CONTRACTING AND PROCUREMENT MATRIX

I. INTRODUCTION

The City of Houston, Texas (City) has enacted ordinances establishing rules and procedures for its procurement process, which are set forth in *City of Houston's Affirmative Action and Contract Compliance Office's Contracting Guide 2006*; *Strategic Purchasing Division Guide to Contingency Contracting (Emergency Purchases), Fourth Edition*; No. 1-42, *Purchasing Card Policy and Procedures (Effective Date 7.15.98)*; No. 2-6: *Post-Bid Opening Contracting Procedures for Departmental Non-Federally Funded Construction Projects (Effective Date 6.25.85)*; and *Administrative Policies and Procedures, No. 5-2: Procurement Procedures (Effective Date 3.19.01)*.

II. DEFINITIONS

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

Goods, Services, and Construction-Related Items are defined as commodities, materials, supplies, and equipment, including those related to construction, and services performed by a person or persons having special skill that is primarily physical or manual in nature. Services contracts include, but are not limited to, janitorial, security, armored cars and guards, printing and reproduction, pest control, rubbish container, emptying and supply services, and avid vehicle removal services.

Construction is defined as work administered by the appropriate departments for the erection, repair, renovation, or demolition of a structure, street, road, runway and other improvements, or addition to real property and those contracts related to, but not limited to, contracts for testing, boring, and excavating.



Professional Services are defined as services which are performed competently only by a person or persons having a special skill, expertise, education, or knowledge which is primarily mental or intellectual in nature rather than physical or manual. Professional services include, but are not limited to, architecture and engineering services, computer programming services, computer maintenance services, auditing services, financial advisory services, instructional services provided by trained educators, appraisal services, mapping services, microfilm and microfiche service, and other personal services exempt from the requirements of statutory competitive bidding.

III. OVERVIEW OF THE PROCUREMENT PROCESS

For the purchases of goods, services, and construction-related items, construction, and professional services, the City has adopted procedures to ensure that the best possible price is obtained and that the procurement process works efficiently and economically.

The procurement of goods, services, and construction-related items; construction; and professional services are subject to different solicitation and approval requirements. The requirements are determined by the type, circumstance, and value of the purchase.

There are two types of procurement, informal and formal. Informal contracts, which are purchases valued at \$25,000 or less for goods, services, and construction-related items, and professional services, and \$50,000 for construction, are not subject to formal advertising or solicitation requirements. Formal contracts, which are purchases valued more than \$25,000 for goods, services, and construction-related items, and professional services, and valued more than \$50,000 for construction, must be procured through a competitive process and solicited to include Minority Business Enterprise (MBE), Women Business Enterprise (WBE), Disadvantaged Business Enterprise (DBE), Small Business Enterprise (SBE), and Persons with Disabilities Business Enterprise (PDBE) participation whenever applicable. Certain formal purchases such as sole source and emergency purchases are exempt from the City's competitive procurement process. Procurement cards may be used for purchases of goods valued less than \$1,000.

Table 2.01 summarizes the City's procurement policies and procedures, which are described below in Section IV. Section V summarizes contracts that are exempt from the City's competitive procurement process.



Table 2.01 City of Houston Procurement Process

Procurement Category	Dollar Threshold	Advertising Requirement	Solicitation Process	Procurement Approval
Goods, Services, and Construction-Related Items	Valued at \$2,000 or less	None	None The User department may utilize Procurement Cards.	User department
	Valued more than \$2,000 through \$25,000	None	User department must solicit at least three bids, two of which must be received from Minority Business Enterprises (MBEs), Women Business Enterprises (WBEs), Disadvantaged Business Enterprises (DBEs), and Person with Disability Business Enterprises (PDBEs) by mail, telephone, or facsimile.	User department

*Mason Tillman Associates, Ltd. December 2006
City of Houston Disparity Study*

Table 2.01 City of Houston Procurement Process

Procurement Category	Dollar Threshold	Advertising Requirement	Solicitation Process	Procurement Approval
	Valued more than \$25,000 through \$100,000	Advertisements on Bid Hotline at (713) 247-BIDS, posted in the basement of City Hall at 901 Bagby, Room B-120, <i>Notice to Bidders</i> section in the <i>Houston Business Journal</i> on Fridays for two consecutive weeks, the City's Strategic Purchasing Division's web site, and the Municipal Access Channel.	Competitive Sealed Bid User department must solicit at least three bids, two of which must be received from MBEs, WBEs, DBEs, and PDBEs by mail, telephone, or facsimile. Pre-bid or pre-proposal conferences should be scheduled and announced on the City's Strategic Purchasing Division's web site as applicable.	Finance and Administration Department's Strategic Purchasing Division Subject to the City Council approval

Table 2.01 City of Houston Procurement Process

Procurement Category	Dollar Threshold	Advertising Requirement	Solicitation Process	Procurement Approval
	Valued more than \$100,000	<p>Advertisements on Bid Hotline at (713) 247-BIDS, posted in the basement of City Hall at 901 Bagby, Room B-120, <i>Notice to Bidders</i> section in the <i>Houston Business Journal</i> on Fridays for two consecutive weeks, the City's Strategic Purchasing Division's web site, and the Municipal Access Channel.</p>	<p>Competitive Sealed Bid</p> <p>Pre-bid and pre-proposal conferences should be scheduled and announced on the City's Strategic Purchasing Division's web site as needed.</p> <p>Subcontracting possibilities must be reviewed and researched by the user department in collaboration with the Strategic Purchasing Division. When deemed applicable, Minority Business Enterprise (MBE), Women Business Enterprise (WBE), Disadvantaged Business Enterprise (DBE), Small Business Enterprise (SBE), and Personals with Disabilities Business Enterprise (PDBE) goals must be set.</p>	<p>Finance and Administration Department's Strategic Purchasing Division</p> <p>Subject to the City Council approval</p>

Table 2.01 City of Houston Procurement Process

Procurement Category	Dollar Threshold	Advertising Requirement	Solicitation Process	Procurement Approval
Construction	Valued at \$25,000 or less	None	Competitive Sealed Bid	User department
	Valued more than \$25,000 through \$500,000	Advertisements in the <i>Notice to Bidder</i> section in the <i>Houston Chronicle</i> and <i>Houston Business Journal</i> each Friday for two weeks	Competitive Sealed Bid Pre-bid conferences for prime contractors and subcontractors as applicable Certified MBEs, WBEs, DBEs, PDBEs, and SBEs are encouraged to bid as prime contractors	Finance and Administration Department's Strategic Purchasing Division Subject to the City Council approval
	Valued between \$500,000 and \$1,000,000	Advertisements in the <i>Notice to Bidder</i> section in the <i>Houston Chronicle</i> and <i>Houston Business Journal</i> each Friday for four to six weeks, depending on the scope of the project.	Competitive Sealed Bid Pre-bid conferences must be set for potential prime contractors and announced on the City's Strategic Purchasing Division's web site.	Finance and Administration Department's Strategic Purchasing Division Subject to the City Council approval

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 City of Houston Disparity Study

Table 2.01 City of Houston Procurement Process

Procurement Category	Dollar Threshold	Advertising Requirement	Solicitation Process	Procurement Approval
	Valued at \$1,000,000 or more	Advertisements in the <i>Notice to Bidder</i> section in the <i>Houston Chronicle</i> and <i>Houston Business Journal</i> each Friday for four to six weeks, depending on the scope of the project	Competitive Sealed Bid Pre-bid conferences must be set for potential prime contractors and announced on the City's Strategic Purchasing Division's web site. MBE, WBE, DBE, PDBE, and SBE goals are set.	Finance and Administration Department's Strategic Purchasing Division Subject to the City Council approval
Professional Services	Valued at \$25,000 or less	None	Request for Proposals, Competitive Sealed Proposals, or Request for Qualifications	Finance and Administration Department's Strategic Purchasing Division
	Valued more than \$25,000 through \$100,000	Advertisements in the <i>Houston Chronicle</i> , <i>Houston Business Journal</i> , and minority publications for two consecutive weeks as applicable.	Request for Proposals, Competitive Sealed Proposals, or Request for Qualifications	Finance and Administration Department's Strategic Purchasing Division

Table 2.01 City of Houston Procurement Process

Procurement Category	Dollar Threshold	Advertising Requirement	Solicitation Process	Procurement Approval
	Valued more than \$100,000	Advertisements in the <i>Houston Chronicle</i> , <i>Houston Business Journal</i> , and minority publications for two consecutive weeks as applicable	Request for Proposals, Competitive Sealed Proposals, or Request for Qualifications	Finance and Administration Department's Strategic Purchasing Division
Emergency Purchases	Valued less than \$25,000	None	If practical given the time frame, user department should obtain at least two informal bids and select the lowest bid meeting the specifications	User department, Finance and Administration Department's Strategic Purchasing Division
	Valued at \$25,000 or more	None	If practical given the time frame, user department should obtain at least two informal bids and select the lowest bid meeting the specifications	City Council
Sole Source Purchases	None	None	None	Strategic Purchasing Division

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Table 2.01 City of Houston Procurement Process

Procurement Category	Dollar Threshold	Advertising Requirement	Solicitation Process	Procurement Approval
Procurement Cards for Purchases of Goods and Services	Valued at \$750 or less	None	None	Departmental Purchasing Card Coordinator, Finance and Administration Department's Strategic Purchasing Division, Controller's Office
	Valued more than \$750 through \$5,000	None	Purchasing Card Holders are required to solicit written quotes, which must be filed and available upon request by the Strategic Purchasing Division	Departmental Purchasing Card Coordinator, Finance and Administration Department's Strategic Purchasing Division, Controller's Office

IV. STANDARDS FOR PROCURING CITY OF HOUSTON, TEXAS CONTRACTS

A. Informal Contracts

Contracts valued at \$25,000 or less for goods, services, and construction-related items are considered informal purchases. Informal purchases valued at \$2,000 or less are not subject to advertising or solicitation requirements. Informal purchases of goods, services, and construction-related items valued more than \$2,000 through \$25,000 are not subject to advertising requirements but must be solicited for three bids by mail, telephone, or facsimile. For purchases of goods that do not exceed \$1,000 per transaction and \$5,000 per month, the user department may use procurement cards. MBE, WBE, and DBE procurement goals should also be observed for these purchases as deemed applicable.

Contracts valued at \$500,000 or less for construction must be advertised in the *Notice to Bidder* section of the *Houston Business Journal* each Friday for two weeks prior to bid opening date. All certified MBEs, WBEs, DBEs, SBEs, and PDBEs are encouraged to bid as prime contractors and pre-bid conferences are scheduled and announced on the City of Houston's Website. All informal construction purchases are requisitioned and purchased under the authority of the Finance and Administration Department.

For informal procurements where MBE, WBE, DBE, and PDBE procurement goals are not met, the user department must be able to provide proof of reasonable effort expended to solicit bids by providing company names, contact names, and telephone numbers upon request.

B. Formal Contracts

Contracts valued more than \$25,000 for goods, services, and construction-related items and \$500,000 for construction are considered formal purchases. All formal purchases valued more than \$25,000 are subject to the City Council approval.

1. Purchases for Goods, Services, and Construction-Related Items Valued more than \$25,000

For purchases of goods, services, and construction-related items valued more than \$25,000, the City must advertise bids on Bid Hotline at (713) 247 - BIDs, on the announcement board at the basement of City Hall, in *Notice to Bidders* section the *Houston Business Journal* on Fridays for at least two consecutive weeks prior to bid opening, on City's Strategic Purchasing Division's web site, and televise on the Municipal Access Channel. Formal purchases of goods, services, and construction-related items must be solicited through competitive sealed bid. Pre-bid or pre-proposal conferences are scheduled as applicable to include MBE, WBE, DBE, and PDBE procurement goals. For formal purchase valued more than \$100,000, subcontracting possibilities must be reviewed and researched



by the user department in collaboration with the Strategic Purchasing Division as MBE, WBE, DBE, SBE, or PDBE goals are set.

2. Purchases of Construction Valued More than \$500,000

For purchases of construction contracts valued more than \$500,000, the City must advertise bids on the Notice to Bidder section of the *Houston Chronicle* and *Houston Business Journal*. Formal purchases of construction are solicited through competitive sealed bid process. Pre-bid conferences are set for potential prime contractors and low bidders are contacted to assess MBE, WBE, DBE, SBE, or PDBE goals. The administering department - Public Works and Engineering, Building Services, Aviation Department, or Housing and Community Development - has purchasing requisition and approval power under the direction of the Finance and Administration Department.

3. Purchases of Professional Services Valued More than \$25,000

For purchases of professional services valued more than \$25,000, the City advertises in the *Houston Chronicle*, *Houston Business Journal*, and minority publications for two consecutive weeks. Formal purchases of professional services which include architecture and engineering services are solicited through Request for Proposals, Competitive Sealed Proposals, and Request for Qualifications.

V. EXEMPTIONS FROM THE CITY'S PROCUREMENT PROCESS

Certain formal procurements are exempt from the City's procurement process. As described below, there are two types of exempt procurements.

A. Emergency Purchases

Emergency purchases are permitted when an emergency occurs where it becomes necessary to act at once to appropriate money to relieve the necessity of citizens, to preserve the property of the city, to preserve or protect the public health and safety of the citizens of the City, to amend unforeseen damage to public property, machinery or equipment. All emergency purchases, regardless of a dollar threshold, are not subject to formal advertising and solicitation requirements. However, if practice given the time frame, the user department must attempt to obtain at least two informal bids and select the lowest bid meeting the specifications for emergency purchases.

B. Sole Source Purchases

Sole source purchases may be awarded for goods or services that can only be obtained from a single supplier/manufacturer. Sole source purchases do not include single source



purchases where only one source is available locally but many suppliers or contractors are located elsewhere. Sole source purchases include but are not limited to purchases of patents or copyrights; books or manuscripts; electric power, gas, water, or utility services; and captive replacement parts. Sole source procurements must be solicited competitively whenever possible.



3

PRIME CONTRACTOR UTILIZATION ANALYSIS

I. INTRODUCTION

As set forth in *Croson* and its progeny, a disparity study must document minority contracting history in the jurisdiction under review. The first step in a disparity study is the statistical analysis of prime contracts. In this study, purchase orders and direct purchases were categorized as prime contracts. The objective of the statistical analysis is to determine the level of minority and woman-owned business enterprise (M/WBE) prime contractor utilization compared to non-M/WBE prime contractor utilization. A prime contractor utilization analysis was undertaken on contracts awarded by the City of Houston (City) between July 1, 2003 to June 30, 2006.

The contracts awarded by the City during the study period were separated into four industries for purposes of the analysis. The industries are construction, architecture and engineering, professional services, and goods and other services. 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 architecture, engineering, research planning, development, design, alteration or repair of real property, surveying and mapping, comprehensive planning, and other professional services of an architectural and engineering nature. Construction management services were also included in this category. Professional services included consulting, personal, professional, and technical services. Goods and other services included materials, as well as supplies, equipment, and non-professional services. Construction maintenance was also included in this category.

The City's utilization of prime contractors in these four industries is analyzed in this chapter.



II. PRIME CONTRACT DATA SOURCES

Data on the contracts and purchase orders for the City's construction, architecture and engineering, professional services, and goods and non-professional services were extracted from the City's SAP financial system.

Mason Tillman analyzed the data provided by the City, and excluded all contract and purchase order records that had a start date outside the study period. The contracts data set and the purchase order data set were compared and all duplicates identified were excluded. Other contracts and purchase orders that were not within one of the four industries described in the previous section were also excluded from the analysis. Examples of these excluded expenditures are procurement from nonprofit organizations, government agencies, public utilities, and Hurricane Katrina-related transactions.

Ethnicity and gender information for the prime contractors had to be reconstructed for some of the contracts and purchase orders. Incomplete ethnicity and gender information is a common condition characterizing data received from government agencies for which Mason Tillman has performed disparity studies. Since ethnicity and gender information is critical to the utilization analysis, research was conducted to secure complete ethnicity and gender information for each contract and purchase order.

Company names were cross-referenced with certification lists, membership directories for chambers of commerce and trade organizations, business listings, and websites in an effort to determine contractor ethnicity and gender. A survey of utilized businesses was also conducted to collect ethnicity and gender information that was not available from the published sources. The ethnicity and gender classification of the utilized businesses was determined through this combined effort.

III. PRIME CONTRACTOR UTILIZATION THRESHOLDS

Contracts within each of the four industries were analyzed at three dollar levels. One category included all contracts regardless of size. The second category included all contracts under \$500,000. This analysis was restricted to a level where there was a demonstrated capacity within the pool of willing M/WBEs to perform. The third size category included the informal contracts under \$50,000 for construction and under \$25,000 for architecture and engineering, professional services, and goods and other services which did not require advertising.

A review of the City's procurement practices included in *Chapter 2: Contracting and Procurement Analysis* found that some industry categories used different dollar threshold for informal contracting or did not require advertising at all.



**Table 3.01 Informal Contract Thresholds for City
Departments**

Industry	Informal Contract Thresholds
Construction	\$50,000
Architecture and Engineering	\$25,000
Professional Services	\$25,000
Goods and Other Services	\$25,000



IV. PRIME CONTRACTOR UTILIZATION

As depicted in Table 3.02 below, the City awarded 2,573 prime contracts during the July 1, 2003 to June 30, 2006 study period. These contracts included 918 for construction, 368 for architecture and engineering, 299 for professional services, and 988 for goods and other services.

The payments made by the City during the study period for all contracts awarded totaled \$3,607,802,097. These expenditures included \$2,241,318,958 for construction, \$287,457,666 for architecture and engineering, \$134,510,200 for professional services, and \$944,515,273 for goods and other services.

Table 3.02 Total Prime Contracts and Dollars Expended: All Industries, July 1, 2003 to June 30, 2006

Industry	Total Number of Contracts	Total Dollars Expended
Construction	918	\$2,241,318,958
Architecture and Engineering Services	368	\$287,457,666
Professional Services	299	\$134,510,200
Goods and Other Services	988	\$944,515,273
Total Expenditures	2,573	\$3,607,802,097



A. All Prime Contracts, by Industry

1. Construction Prime Contractor Utilization: All Contracts

Table 3.03 summarizes all contract dollars expended by the City on construction prime contracts. Minority Business Enterprises received 7.46 percent of the construction prime contract dollars; Women Business Enterprises received 3.91 percent; and Caucasian Male Business Enterprises received 88.63 percent.

African Americans received 30 or 3.27 percent of the construction contracts during the study period, representing \$15,880,051 or 0.71 percent of the contract dollars.

Asian Americans received 21 or 2.29 percent of the construction contracts during the study period, representing \$58,723,000 or 2.62 percent of the contract dollars.

Hispanic Americans received 48 or 5.23 percent of the construction contracts during the study period, representing \$85,196,663 or 3.8 percent of the contract dollars.

Native Americans received 13 or 1.42 percent of the construction contracts during the study period, representing \$7,503,923 or 0.33 percent of the contract dollars.

Minority Business Enterprises received 112 or 12.2 percent of the construction contracts during the study period, representing \$167,303,636 or 7.46 percent of the contract dollars.

Women Business Enterprises received 36 or 3.92 percent of the construction contracts during the study period, representing \$87,528,797 or 3.91 percent of the contract dollars.

Minority and Women Business Enterprises received 148 or 16.12 percent of the construction contracts during the study period, representing \$254,832,433 or 11.37 percent of the contract dollars.

Caucasian Male Business Enterprises received 770 or 83.88 percent of the construction contracts during the study period, representing \$1,986,486,526 or 88.63 percent of the contract dollars.



**Table 3.03 Construction Prime Contractor Utilization All
Contracts, July 1, 2003 to June 30, 2006**

Ethnicity	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
African Americans	30	3.27%	\$15,880,051	0.71%
Asian Americans	21	2.29%	\$58,723,000	2.62%
Hispanic Americans	48	5.23%	\$85,196,663	3.80%
Native Americans	13	1.42%	\$7,503,923	0.33%
Caucasian Females	36	3.92%	\$87,528,797	3.91%
Caucasian Males	770	83.88%	\$1,986,486,526	88.63%
TOTAL	918	100.00%	\$2,241,318,958	100.00%
Ethnicity and Gender	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
African American Females	4	0.44%	\$2,891,021	0.13%
African American Males	26	2.83%	\$12,989,030	0.58%
Asian American Females	0	0.00%	\$0	0.00%
Asian American Males	21	2.29%	\$58,723,000	2.62%
Hispanic American Females	16	1.74%	\$36,683,523	1.64%
Hispanic American Males	32	3.49%	\$48,513,140	2.16%
Native American Females	1	0.11%	\$192,000	0.01%
Native American Males	12	1.31%	\$7,311,923	0.33%
Caucasian Females	36	3.92%	\$87,528,797	3.91%
Caucasian Males	770	83.88%	\$1,986,486,526	88.63%
TOTAL	918	100.00%	\$2,241,318,958	100.00%
Minority and Gender	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
Minority Females	21	2.29%	\$39,766,544	1.77%
Minority Males	91	9.91%	\$127,537,092	5.69%
Caucasian Females	36	3.92%	\$87,528,797	3.91%
Caucasian Males	770	83.88%	\$1,986,486,526	88.63%
TOTAL	918	100.00%	\$2,241,318,958	100.00%
Minority and Women	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
Minority Business Enterprises	112	12.20%	\$167,303,636	7.46%
Women Business Enterprises	36	3.92%	\$87,528,797	3.91%
Minority and Women Business Enterprises	148	16.12%	\$254,832,433	11.37%
Caucasian Male Business Enterprises	770	83.88%	\$1,986,486,526	88.63%
TOTAL	918	100.00%	\$2,241,318,958	100.00%



2. Architecture and Engineering Prime Contractor Utilization: All Contracts

Table 3.04 summarizes all contract dollars expended by the City on architecture and engineering prime contracts. Minority Business Enterprises received 25.61 percent of the architecture and engineering prime contract dollars; Women Business Enterprises received 0.9 percent, and Caucasian Male Business Enterprises received 73.5 percent.

African Americans received 42 or 11.41 percent of the architecture and engineering contracts during the study period, representing \$13,228,555 or 4.6 percent of the contract dollars.

Asian Americans received 55 or 14.95 percent of the architecture and engineering contracts during the study period, representing \$30,246,162 or 10.52 percent of the contract dollars.

Hispanic Americans received 58 or 15.76 percent of the architecture and engineering contracts during the study period, representing \$30,130,933 or 10.48 percent of the contract dollars.

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

Minority Business Enterprises received 155 or 42.12 percent of the architecture and engineering contracts during the study period, representing \$73,605,650 or 25.61 percent of the contract dollars.

Women Business Enterprises received 11 or 2.99 percent of the architecture and engineering contracts during the study period, representing \$2,583,829 or 0.9 percent of the contract dollars.

Minority and Women Business Enterprises received 166 or 45.11 percent of the architecture and engineering contracts during the study period, representing \$76,189,480 or 26.5 percent of the contract dollars.

Caucasian Male Business Enterprises received 202 or 54.89 percent of the architecture and engineering contracts during the study period, representing \$211,268,186 or 73.5 percent of the contract dollars.



**Table 3.04 Architecture and Engineering Prime Contractor
Utilization: All Contracts, July 1, 2003 to June 30, 2006**

Ethnicity	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
African Americans	42	11.41%	\$13,228,555	4.60%
Asian Americans	55	14.95%	\$30,246,162	10.52%
Hispanic Americans	58	15.76%	\$30,130,933	10.48%
Native Americans	0	0.00%	\$0	0.00%
Caucasian Females	11	2.99%	\$2,583,829	0.90%
Caucasian Males	202	54.89%	\$211,268,186	73.50%
TOTAL	368	100.00%	\$287,457,666	100.00%
Ethnicity and Gender	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
African American Females	6	1.63%	\$2,380,693	0.83%
African American Males	36	9.78%	\$10,847,863	3.77%
Asian American Females	2	0.54%	\$600,936	0.21%
Asian American Males	53	14.40%	\$29,645,226	10.31%
Hispanic American Females	8	2.17%	\$1,944,031	0.68%
Hispanic American Males	50	13.59%	\$28,186,902	9.81%
Native American Females	0	0.00%	\$0	0.00%
Native American Males	0	0.00%	\$0	0.00%
Caucasian Females	11	2.99%	\$2,583,829	0.90%
Caucasian Males	202	54.89%	\$211,268,186	73.50%
TOTAL	368	100.00%	\$287,457,666	100.00%
Minority and Gender	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
Minority Females	16	4.35%	\$4,925,659	1.71%
Minority Males	139	37.77%	\$68,679,991	23.89%
Caucasian Females	11	2.99%	\$2,583,829	0.90%
Caucasian Males	202	54.89%	\$211,268,186	73.50%
TOTAL	368	100.00%	\$287,457,666	100.00%
Minority and Women	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
Minority Business Enterprises	155	42.12%	\$73,605,650	25.61%
Women Business Enterprises	11	2.99%	\$2,583,829	0.90%
Minority and Women Business Enterprises	166	45.11%	\$76,189,480	26.50%
Caucasian Male Business Enterprises	202	54.89%	\$211,268,186	73.50%
TOTAL	368	100.00%	\$287,457,666	100.00%



3. Professional Services Prime Contractor Utilization: All Contracts

Table 3.05 summarizes all contract dollars expended by the City on professional services prime contracts. Minority Business Enterprises received 12.9 percent of the professional services prime contract dollars; Women Business Enterprises received 4.98 percent; and Caucasian Male Business Enterprises received 82.12 percent.

African Americans received 14 or 4.68 percent of the professional services contracts during the study period, representing \$5,246,372 or 3.9 percent of the contract dollars.

Asian Americans received 14 or 4.68 percent of the professional services contracts during the study period, representing \$5,751,465 or 4.28 percent of the contract dollars.

Hispanic Americans received 21 or 7.02 percent of the professional services contracts during the study period, representing \$1,867,384 or 1.39 percent of the contract dollars.

Native Americans received 10 or 3.34 percent of the professional services contracts during the study period, representing \$4,487,411 or 3.34 percent of the contract dollars.

Minority Business Enterprises received 59 or 19.73 percent of the professional services contracts during the study period, representing \$17,352,631 or 12.9 percent of the contract dollars.

Women Business Enterprises received 24 or 8.03 percent of the professional services contracts during the study period, representing \$6,695,536 or 4.98 percent of the contract dollars.

Minority and Women Business Enterprises received 83 or 27.76 percent of the professional services contracts during the study period, representing \$24,048,167 or 17.88 percent of the contract dollars.

Caucasian Male Business Enterprises received 216 or 72.24 percent of the professional services contracts during the study period, representing \$110,462,033 or 82.12 percent of the contract dollars.



**Table 3.05 Professional Services Prime Contractor
Utilization: All Contracts, July 1, 2003 to June 30, 2006**

Ethnicity	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
African Americans	14	4.68%	\$5,246,372	3.90%
Asian Americans	14	4.68%	\$5,751,465	4.28%
Hispanic Americans	21	7.02%	\$1,867,384	1.39%
Native Americans	10	3.34%	\$4,487,411	3.34%
Caucasian Females	24	8.03%	\$6,695,536	4.98%
Caucasian Males	216	72.24%	\$110,462,033	82.12%
TOTAL	299	100.00%	\$134,510,200	100.00%
Ethnicity and Gender	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
African American Females	2	0.67%	\$113,623	0.08%
African American Males	12	4.01%	\$5,132,749	3.82%
Asian American Females	5	1.67%	\$597,703	0.44%
Asian American Males	9	3.01%	\$5,153,763	3.83%
Hispanic American Females	11	3.68%	\$572,790	0.43%
Hispanic American Males	10	3.34%	\$1,294,593	0.96%
Native American Females	0	0.00%	\$0	0.00%
Native American Males	10	3.34%	\$4,487,411	3.34%
Caucasian Females	24	8.03%	\$6,695,536	4.98%
Caucasian Males	216	72.24%	\$110,462,033	82.12%
TOTAL	299	100.00%	\$134,510,200	100.00%
Minority and Gender	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
Minority Females	18	6.02%	\$1,284,115	0.95%
Minority Males	41	13.71%	\$16,068,516	11.95%
Caucasian Females	24	8.03%	\$6,695,536	4.98%
Caucasian Males	216	72.24%	\$110,462,033	82.12%
TOTAL	299	100.00%	\$134,510,200	100.00%
Minority and Women	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
Minority Business Enterprises	59	19.73%	\$17,352,631	12.90%
Women Business Enterprises	24	8.03%	\$6,695,536	4.98%
Minority and Women Business Enterprises	83	27.76%	\$24,048,167	17.88%
Caucasian Male Business Enterprises	216	72.24%	\$110,462,033	82.12%
TOTAL	299	100.00%	\$134,510,200	100.00%



4. Goods and Other Services Prime Contractor Utilization: All Contracts

Table 3.06 summarizes all contract dollars expended by the City on goods and other services prime contracts. Minority Business Enterprises received 12.44 percent of the goods and other services prime contract dollars; Women Business Enterprises received 2.74 percent; and Caucasian Male Business Enterprises received 84.83 percent.

African Americans received 33 or 3.34 percent of the goods and other services contracts during the study period, representing \$31,708,352 or 3.36 percent of the contract dollars.

Asian Americans received 10 or 1.01 percent of the goods and other services contracts during the study period, representing \$12,403,390 or 1.31 percent of the contract dollars.

Hispanic Americans received 27 or 2.73 percent of the goods and other services contracts during the study period, representing \$67,827,701 or 7.18 percent of the contract dollars.

Native Americans received 2 or 0.2 percent of the goods and other services contracts during the study period, representing \$5,524,616 or 0.58 percent of the contract dollars.

Minority Business Enterprises received 72 or 7.29 percent of the goods and other services contracts during the study period, representing \$117,464,059 or 12.44 percent of the contract dollars.

Women Business Enterprises received 46 or 4.66 percent of the goods and other services contracts during the study period, representing \$25,842,845 or 2.74 percent of the contract dollars.

Minority and Women Business Enterprises received 118 or 11.94 percent of the goods and other services contracts during the study period, representing \$143,306,904 or 15.17 percent of the contract dollars.

Caucasian Male Business Enterprises received 870 or 88.06 percent of the goods and other services contracts during the study period, representing \$801,208,369 or 84.83 percent of the contract dollars.



Table 3.06 Goods and Other Services Prime Contractor Utilization: All Contracts, July 1, 2003 to June 30, 2006

Ethnicity	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
African Americans	33	3.34%	\$31,708,352	3.36%
Asian Americans	10	1.01%	\$12,403,390	1.31%
Hispanic Americans	27	2.73%	\$67,827,701	7.18%
Native Americans	2	0.20%	\$5,524,616	0.58%
Caucasian Females	46	4.66%	\$25,842,845	2.74%
Caucasian Males	870	88.06%	\$801,208,369	84.83%
TOTAL	988	100.00%	\$944,515,273	100.00%
Ethnicity and Gender	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
African American Females	5	0.51%	\$4,038,932	0.43%
African American Males	28	2.83%	\$27,669,420	2.93%
Asian American Females	7	0.71%	\$10,289,377	1.09%
Asian American Males	3	0.30%	\$2,114,013	0.22%
Hispanic American Females	2	0.20%	\$271,979	0.03%
Hispanic American Males	25	2.53%	\$67,555,722	7.15%
Native American Females	0	0.00%	\$0	0.00%
Native American Males	2	0.20%	\$5,524,616	0.58%
Caucasian Females	46	4.66%	\$25,842,845	2.74%
Caucasian Males	870	88.06%	\$801,208,369	84.83%
TOTAL	988	100.00%	\$944,515,273	100.00%
Minority and Gender	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
Minority Females	14	1.42%	\$14,600,288	1.55%
Minority Males	58	5.87%	\$102,863,771	10.89%
Caucasian Females	46	4.66%	\$25,842,845	2.74%
Caucasian Males	870	88.06%	\$801,208,369	84.83%
TOTAL	988	100.00%	\$944,515,273	100.00%
Minority and Women	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
Minority Business Enterprises	72	7.29%	\$117,464,059	12.44%
Women Business Enterprises	46	4.66%	\$25,842,845	2.74%
Minority and Women Business Enterprises	118	11.94%	\$143,306,904	15.17%
Caucasian Male Business Enterprises	870	88.06%	\$801,208,369	84.83%
TOTAL	988	100.00%	\$944,515,273	100.00%



B. Prime Contracts under \$500,000, by Industry

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

Table 3.07 summarizes all contract dollars expended by the City on construction prime contracts under \$500,000. Minority Business Enterprises received 13.67 percent of the construction prime contract dollars; Women Business Enterprises received 5.36 percent; and Caucasian Male Business Enterprises received 80.97 percent.

African Americans received 20 or 7.14 percent of the construction contracts under \$500,000 during the study period, representing \$4,380,578 or 6.95 percent of the contract dollars.

Asian Americans received none of the construction contracts under \$500,000 during the study period.

Hispanic Americans received 21 or 7.5 percent of the construction contracts under \$500,000 during the study period, representing \$3,887,737 or 6.16 percent of the contract dollars.

Native Americans received 4 or 1.43 percent of the construction contracts under \$500,000 during the study period, representing \$356,941 or 0.57 percent of the contract dollars.

Minority Business Enterprises received 45 or 16.07 percent of the construction contracts under \$500,000 during the study period, representing \$8,625,255 or 13.67 percent of the contract dollars.

Women Business Enterprises received 11 or 3.93 percent of the construction contracts under \$500,000 during the study period, representing \$3,378,599 or 5.36 percent of the contract dollars.

Minority and Women Business Enterprises received 56 or 20 percent of the construction contracts under \$500,000 during the study period, representing \$12,003,855 or 19.03 percent of the contract dollars.

Caucasian Male Business Enterprises received 224 or 80 percent of the construction contracts under \$500,000 during the study period, representing \$51,071,050 or 80.97 percent of the contract dollars.



**Table 3.07 Construction Prime Contractor Utilization:
Contracts under \$500,000, July 1, 2003 to June 30, 2006**

Ethnicity	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
African Americans	20	7.14%	\$4,380,578	6.95%
Asian Americans	0	0.00%	\$0	0.00%
Hispanic Americans	21	7.50%	\$3,887,737	6.16%
Native Americans	4	1.43%	\$356,941	0.57%
Caucasian Females	11	3.93%	\$3,378,599	5.36%
Caucasian Males	224	80.00%	\$51,071,050	80.97%
TOTAL	280	100.00%	\$63,074,905	100.00%
Ethnicity and Gender	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
African American Females	1	0.36%	\$143,971	0.23%
African American Males	19	6.79%	\$4,236,606	6.72%
Asian American Females	0	0.00%	\$0	0.00%
Asian American Males	0	0.00%	\$0	0.00%
Hispanic American Females	8	2.86%	\$1,705,020	2.70%
Hispanic American Males	13	4.64%	\$2,182,717	3.46%
Native American Females	1	0.36%	\$192,000	0.30%
Native American Males	3	1.07%	\$164,941	0.26%
Caucasian Females	11	3.93%	\$3,378,599	5.36%
Caucasian Males	224	80.00%	\$51,071,050	80.97%
TOTAL	280	100.00%	\$63,074,905	100.00%
Minority and Gender	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
Minority Females	10	3.57%	\$2,040,992	3.24%
Minority Males	35	12.50%	\$6,584,264	10.44%
Caucasian Females	11	3.93%	\$3,378,599	5.36%
Caucasian Males	224	80.00%	\$51,071,050	80.97%
TOTAL	280	100.00%	\$63,074,905	100.00%
Minority and Women	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
Minority Business Enterprises	45	16.07%	\$8,625,255	13.67%
Women Business Enterprises	11	3.93%	\$3,378,599	5.36%
Minority and Women Business Enterprises	56	20.00%	\$12,003,855	19.03%
Caucasian Male Business Enterprises	224	80.00%	\$51,071,050	80.97%
TOTAL	280	100.00%	\$63,074,905	100.00%



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

Table 3.08 summarizes all contract dollars expended by the City on architecture and engineering prime contracts under \$500,000. Minority Business Enterprises received 51.13 percent of the construction prime contract dollars; Women Business Enterprises received 2.73 percent; and Caucasian Male Business Enterprises received 46.14 percent.

African Americans received 34 or 15.18 percent of the architecture and engineering contracts under \$500,000 during the study period, representing \$6,931,886 or 13.35 percent of the contract dollars.

Asian Americans received 36 or 16.07 percent of the architecture and engineering contracts under \$500,000 during the study period, representing \$9,669,146 or 18.63 percent of the contract dollars.

Hispanic Americans received 40 or 17.86 percent of the architecture and engineering contracts under \$500,000 during the study period, representing \$9,942,559 or 19.15 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 110 or 49.11 percent of the architecture and engineering contracts under \$500,000 during the study period, representing \$26,543,592 or 51.13 percent of the contract dollars.

Women Business Enterprises received 9 or 4.02 percent of the architecture and engineering contracts under \$500,000 during the study period, representing \$1,417,829 or 2.73 percent of the contract dollars.

Minority and Women Business Enterprises received 119 or 53.13 percent of the architecture and engineering contracts under \$500,000 during the study period, representing \$27,961,421 or 53.86 percent of the contract dollars.

Caucasian Male Business Enterprises received 105 or 46.88 percent of the architecture and engineering contracts under \$500,000 during the study period, representing \$23,953,205 or 46.14 percent of the contract dollars.



**Table 3.08 Architecture and Engineering Prime Contractor
Utilization: Contracts under \$500,000, July 1, 2003 to June 30,
2006**

Ethnicity	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
African Americans	34	15.18%	\$6,931,886	13.35%
Asian Americans	36	16.07%	\$9,669,146	18.63%
Hispanic Americans	40	17.86%	\$9,942,559	19.15%
Native Americans	0	0.00%	\$0	0.00%
Caucasian Females	9	4.02%	\$1,417,829	2.73%
Caucasian Males	105	46.88%	\$23,953,205	46.14%
TOTAL	224	100.00%	\$51,914,626	100.00%
Ethnicity and Gender	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
African American Females	4	1.79%	\$763,242	1.47%
African American Males	30	13.39%	\$6,168,645	11.88%
Asian American Females	2	0.89%	\$600,936	1.16%
Asian American Males	34	15.18%	\$9,068,210	17.47%
Hispanic American Females	7	3.13%	\$1,432,431	2.76%
Hispanic American Males	33	14.73%	\$8,510,128	16.39%
Native American Females	0	0.00%	\$0	0.00%
Native American Males	0	0.00%	\$0	0.00%
Caucasian Females	9	4.02%	\$1,417,829	2.73%
Caucasian Males	105	46.88%	\$23,953,205	46.14%
TOTAL	224	100.00%	\$51,914,626	100.00%
Minority and Gender	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
Minority Females	13	5.80%	\$2,796,608	5.39%
Minority Males	97	43.30%	\$23,746,983	45.74%
Caucasian Females	9	4.02%	\$1,417,829	2.73%
Caucasian Males	105	46.88%	\$23,953,205	46.14%
TOTAL	224	100.00%	\$51,914,626	100.00%
Minority and Women	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
Minority Business Enterprises	110	49.11%	\$26,543,592	51.13%
Women Business Enterprises	9	4.02%	\$1,417,829	2.73%
Minority and Women Business Enterprises	119	53.13%	\$27,961,421	53.86%
Caucasian Male Business Enterprises	105	46.88%	\$23,953,205	46.14%
TOTAL	224	100.00%	\$51,914,626	100.00%



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

Table 3.09 summarizes all contract dollars expended by the City on professional services prime contracts under \$500,000. Minority Business Enterprises received 21.38 percent of the professional services prime contract dollars; Women Business Enterprises received 3.9 percent; and Caucasian Male Business Enterprises received 74.72 percent.

African Americans received 10 or 4.1 percent of the professional services contracts under \$500,000 during the study period, representing \$1,250,733 or 4.07 percent of the contract dollars.

Asian Americans received 13 or 5.33 percent of the professional services contracts under \$500,000 during the study period, representing \$1,714,465 or 5.59 percent of the contract dollars.

Hispanic Americans received 21 or 8.61 percent of the professional services contracts under \$500,000 during the study period, representing \$1,867,384 or 6.08 percent of the contract dollars.

Native Americans received 6 or 2.46 percent of the professional services contracts under \$500,000 during the study period, representing \$1,729,258 or 5.63 percent of the contract dollars.

Minority Business Enterprises received 50 or 20.49 percent of the professional services contracts under \$500,000 during the study period, representing \$6,561,840 or 21.38 percent of the contract dollars.

Women Business Enterprises received 20 or 8.2 percent of the professional services contracts under \$500,000 during the study period, representing \$1,196,604 or 3.9 percent of the contract dollars.

Minority and Women Business Enterprises received 70 or 28.69 percent of the professional services contracts under \$500,000 during the study period, representing \$7,758,444 or 25.28 percent of the contract dollars.

Caucasian Male Business Enterprises received 174 or 71.31 percent of the professional services contracts under \$500,000 during the study period, representing \$22,937,386 or 74.72 percent of the contract dollars.



**Table 3.09 Professional Services Prime Contractor
Utilization: Contracts under \$500,000, July 1, 2003 to June 30,
2006**

Ethnicity	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
African Americans	10	4.10%	\$1,250,733	4.07%
Asian Americans	13	5.33%	\$1,714,465	5.59%
Hispanic Americans	21	8.61%	\$1,867,384	6.08%
Native Americans	6	2.46%	\$1,729,258	5.63%
Caucasian Females	20	8.20%	\$1,196,604	3.90%
Caucasian Males	174	71.31%	\$22,937,386	74.72%
TOTAL	244	100.00%	\$30,695,830	100.00%
Ethnicity and Gender	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
African American Females	2	0.82%	\$113,623	0.37%
African American Males	8	3.28%	\$1,137,110	3.70%
Asian American Females	5	2.05%	\$597,703	1.95%
Asian American Males	8	3.28%	\$1,116,763	3.64%
Hispanic American Females	11	4.51%	\$572,790	1.87%
Hispanic American Males	10	4.10%	\$1,294,593	4.22%
Native American Females	0	0.00%	\$0	0.00%
Native American Males	6	2.46%	\$1,729,258	5.63%
Caucasian Females	20	8.20%	\$1,196,604	3.90%
Caucasian Males	174	71.31%	\$22,937,386	74.72%
TOTAL	244	100.00%	\$30,695,830	100.00%
Minority and Gender	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
Minority Females	18	7.38%	\$1,284,115	4.18%
Minority Males	32	13.11%	\$5,277,724	17.19%
Caucasian Females	20	8.20%	\$1,196,604	3.90%
Caucasian Males	174	71.31%	\$22,937,386	74.72%
TOTAL	244	100.00%	\$30,695,830	100.00%
Minority and Women	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
Minority Business Enterprises	50	20.49%	\$6,561,840	21.38%
Women Business Enterprises	20	8.20%	\$1,196,604	3.90%
Minority and Women Business Enterprises	70	28.69%	\$7,758,444	25.28%
Caucasian Male Business Enterprises	174	71.31%	\$22,937,386	74.72%
TOTAL	244	100.00%	\$30,695,830	100.00%



4. Goods and Other Services Prime Contractor Utilization: Contracts under \$500,000

Table 3.10 summarizes all contract dollars expended by the City on goods and other services prime contracts under \$500,000. Minority Business Enterprises received 6.19 percent of the goods and other services prime contract dollars; Women Business Enterprises received 3.07 percent; and Caucasian Male Business Enterprises received 90.74 percent.

African Americans received 19 or 2.71 percent of the goods and other services contracts under \$500,000 during the study period, representing \$2,541,087 or 2.83 percent of the contract dollars.

Asian Americans received 3 or 0.43 percent of the goods and other services contracts under \$500,000 during the study period, representing \$401,107 or 0.45 percent of the contract dollars.

Hispanic Americans received 15 or 2.14 percent of the goods and other services contracts under \$500,000 during the study period, representing \$2,606,158 or 2.91 percent of the contract dollars.

Native Americans received none of the goods and other services contracts under \$500,000 during the study period.

Minority Business Enterprises received 37 or 5.29 percent of the goods and other services contracts under \$500,000 during the study period, representing \$5,548,352 or 6.19 percent of the contract dollars.

Women Business Enterprises received 30 or 4.29 percent of the goods and other services contracts under \$500,000 during the study period, representing \$2,750,539 or 3.07 percent of the contract dollars.

Minority and Women Business Enterprises received 67 or 9.57 percent of the goods and other services contracts under \$500,000 during the study period, representing \$8,298,891 or 9.26 percent of the contract dollars.

Caucasian Male Business Enterprises received 633 or 90.43 percent of the goods and other services contracts under \$500,000 during the study period, representing \$81,339,697 or 90.74 percent of the contract dollars.



**Table 3.10 Goods and Other Services Prime Contractor
Utilization: Contracts under \$500,000, July 1, 2003 to June 30,
2006**

Ethnicity	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
African Americans	19	2.71%	\$2,541,087	2.83%
Asian Americans	3	0.43%	\$401,107	0.45%
Hispanic Americans	15	2.14%	\$2,606,158	2.91%
Native Americans	0	0.00%	\$0	0.00%
Caucasian Females	30	4.29%	\$2,750,539	3.07%
Caucasian Males	633	90.43%	\$81,339,697	90.74%
TOTAL	700	100.00%	\$89,638,588	100.00%
Ethnicity and Gender	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
African American Females	4	0.57%	\$51,354	0.06%
African American Males	15	2.14%	\$2,489,733	2.78%
Asian American Females	1	0.14%	\$252,731	0.28%
Asian American Males	2	0.29%	\$148,376	0.17%
Hispanic American Females	2	0.29%	\$271,979	0.30%
Hispanic American Males	13	1.86%	\$2,334,179	2.60%
Native American Females	0	0.00%	\$0	0.00%
Native American Males	0	0.00%	\$0	0.00%
Caucasian Females	30	4.29%	\$2,750,539	3.07%
Caucasian Males	633	90.43%	\$81,339,697	90.74%
TOTAL	700	100.00%	\$89,638,588	100.00%
Minority and Gender	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
Minority Females	7	1.00%	\$576,064	0.64%
Minority Males	30	4.29%	\$4,972,288	5.55%
Caucasian Females	30	4.29%	\$2,750,539	3.07%
Caucasian Males	633	90.43%	\$81,339,697	90.74%
TOTAL	700	100.00%	\$89,638,588	100.00%
Minority and Women	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
Minority Business Enterprises	37	5.29%	\$5,548,352	6.19%
Women Business Enterprises	30	4.29%	\$2,750,539	3.07%
Minority and Women Business Enterprises	67	9.57%	\$8,298,891	9.26%
Caucasian Male Business Enterprises	633	90.43%	\$81,339,697	90.74%
TOTAL	700	100.00%	\$89,638,588	100.00%



C. Informal Prime Contracts under \$50,000 and \$25,000, by Industry

1. Construction Prime Contractor Utilization: Contracts under \$50,000

Table 3.11 summarizes all contract dollars expended by the City on construction prime contracts under \$50,000. Minority Business Enterprises received 25.36 percent of the construction prime contract dollars; Women Business Enterprises received none of the construction prime contract dollars; and Caucasian Male Business Enterprises received 74.64 percent.

African Americans received 3 or 8.11 percent of the construction contracts under \$50,000 during the study period, representing \$105,443 or 10.45 percent of the contract dollars.

Asian Americans received none of the construction contracts under \$50,000 during the study period.

Hispanic Americans received 3 or 8.11 percent of the construction contracts under \$50,000 during the study period, representing \$85,946 or 8.52 percent of the contract dollars.

Native Americans received 2 or 5.41 percent of the construction contracts under \$50,000 during the study period, representing \$64,585 or 6.4 percent of the contract dollars.

Minority Business Enterprises received 8 or 21.62 percent of the construction contracts under \$50,000 during the study period, representing \$255,974 or 25.36 percent of the contract dollars.

Women Business Enterprises received none of the construction contracts under \$50,000 during the study period.

Minority and Women Business Enterprises received 8 or 21.62 percent of the construction contracts under \$50,000 during the study period, representing \$255,974 or 25.36 percent of the contract dollars.

Caucasian Male Business Enterprises received 29 or 78.38 percent of the construction contracts under \$50,000 during the study period, representing \$753,229 or 74.64 percent of the contract dollars.



**Table 3.11 Construction Prime Contractor Utilization:
Contracts under \$50,000, July 1, 2003 to June 30, 2006**

Ethnicity	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
African Americans	3	8.11%	\$105,443	10.45%
Asian Americans	0	0.00%	\$0	0.00%
Hispanic Americans	3	8.11%	\$85,946	8.52%
Native Americans	2	5.41%	\$64,585	6.40%
Caucasian Females	0	0.00%	\$0	0.00%
Caucasian Males	29	78.38%	\$753,229	74.64%
TOTAL	37	100.00%	\$1,009,204	100.00%
Ethnicity and Gender	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
African American Females	0	0.00%	\$0	0.00%
African American Males	3	8.11%	\$105,443	10.45%
Asian American Females	0	0.00%	\$0	0.00%
Asian American Males	0	0.00%	\$0	0.00%
Hispanic American Females	0	0.00%	\$0	0.00%
Hispanic American Males	3	8.11%	\$85,946	8.52%
Native American Females	0	0.00%	\$0	0.00%
Native American Males	2	5.41%	\$64,585	6.40%
Caucasian Females	0	0.00%	\$0	0.00%
Caucasian Males	29	78.38%	\$753,229	74.64%
TOTAL	37	100.00%	\$1,009,204	100.00%
Minority and Gender	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
Minority Females	0	0.00%	\$0	0.00%
Minority Males	8	21.62%	\$255,974	25.36%
Caucasian Females	0	0.00%	\$0	0.00%
Caucasian Males	29	78.38%	\$753,229	74.64%
TOTAL	37	100.00%	\$1,009,204	100.00%
Minority and Women	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
Minority Business Enterprises	8	21.62%	\$255,974	25.36%
Women Business Enterprises	0	0.00%	\$0	0.00%
Minority and Women Business Enterprises	8	21.62%	\$255,974	25.36%
Caucasian Male Business Enterprises	29	78.38%	\$753,229	74.64%
TOTAL	37	100.00%	\$1,009,204	100.00%



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

Table 3.12 summarizes all contract dollars expended by the City on architecture and engineering prime contracts under \$25,000. Minority Business Enterprises received 51.23 percent of the architecture and engineering prime contract dollars; Women Business Enterprises received 2.36 percent ; and Caucasian Male Business Enterprises received 46.41 percent.

African Americans received 4 or 23.53 percent of the architecture and engineering contracts under \$25,000 during the study period, representing \$90,473 or 42.68 percent of the contract dollars.

Asian Americans received 3 or 17.65 percent of the architecture and engineering contracts under \$25,000 during the study period, representing \$18,122 or 8.55 percent of the contract dollars.

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

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

Minority Business Enterprises received 7 or 41.18 percent of the architecture and engineering contracts under \$25,000 during the study period, representing \$108,595 or 51.23 percent of the contract dollars.

Women Business Enterprises received 1 or 5.88 percent of the architecture and engineering contracts under \$25,000 during the study period, representing \$5,000 or 2.36 percent of the contract dollars.

Minority and Women Business Enterprises received 8 or 47.06 percent of the architecture and engineering contracts under \$25,000 during the study period, representing \$113,595 or 53.59 percent of the contract dollars.

Caucasian Male Business Enterprises received 9 or 52.94 percent of the architecture and engineering contracts under \$25,000 during the study period, representing \$98,367 or 46.41 percent of the contract dollars.



**Table 3.12 Architecture and Engineering Prime Contractor
Utilization: Contracts under \$25,000, July 1, 2003 to June 30,
2006**

Ethnicity	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
African Americans	4	23.53%	\$90,473	42.68%
Asian Americans	3	17.65%	\$18,122	8.55%
Hispanic Americans	0	0.00%	\$0	0.00%
Native Americans	0	0.00%	\$0	0.00%
Caucasian Females	1	5.88%	\$5,000	2.36%
Caucasian Males	9	52.94%	\$98,367	46.41%
TOTAL	17	100.00%	\$211,962	100.00%
Ethnicity and Gender	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
African American Females	1	5.88%	\$48,743	23.00%
African American Males	3	17.65%	\$41,730	19.69%
Asian American Females	0	0.00%	\$0	0.00%
Asian American Males	3	17.65%	\$18,122	8.55%
Hispanic American Females	0	0.00%	\$0	0.00%
Hispanic American Males	0	0.00%	\$0	0.00%
Native American Females	0	0.00%	\$0	0.00%
Native American Males	0	0.00%	\$0	0.00%
Caucasian Females	1	5.88%	\$5,000	2.36%
Caucasian Males	9	52.94%	\$98,367	46.41%
TOTAL	17	100.00%	\$211,962	100.00%
Minority and Gender	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
Minority Females	1	5.88%	\$48,743	23.00%
Minority Males	6	35.29%	\$59,852	28.24%
Caucasian Females	1	5.88%	\$5,000	2.36%
Caucasian Males	9	52.94%	\$98,367	46.41%
TOTAL	17	100.00%	\$211,962	100.00%
Minority and Women	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
Minority Business Enterprises	7	41.18%	\$108,595	51.23%
Women Business Enterprises	1	5.88%	\$5,000	2.36%
Minority and Women Business Enterprises	8	47.06%	\$113,595	53.59%
Caucasian Male Business Enterprises	9	52.94%	\$98,367	46.41%
TOTAL	17	100.00%	\$211,962	100.00%



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

Table 3.13 summarizes all contract dollars expended by the City on professional services prime contracts under \$25,000. Minority Business Enterprises received 18.82 percent of the professional services prime contract dollars; Women Business Enterprises received 11.97 percent; and Caucasian Male Business Enterprises received 69.22 percent.

African Americans received 3 or 4.76 percent of the professional services contracts under \$25,000 during the study period, representing \$33,373 or 3.79 percent of the contract dollars.

Asian Americans received 2 or 3.17 percent of the professional services contracts under \$25,000 during the study period, representing \$38,703 or 4.4 percent of the contract dollars.

Hispanic Americans received 11 or 17.46 percent of the professional services contracts under \$25,000 during the study period, representing \$93,557 or 10.63 percent of the contract dollars.

Native Americans received none of the professional services contracts under \$25,000 during the study period.

Minority Business Enterprises received 16 or 25.4 percent of the professional services contracts under \$25,000 during the study period, representing \$165,632 or 18.82 percent of the contract dollars.

Women Business Enterprises received 7 or 11.11 percent of the professional services contracts under \$25,000 during the study period, representing \$105,352 or 11.97 percent of the contract dollars.

Minority and Women Business Enterprises received 23 or 36.51 percent of the professional services contracts under \$25,000 during the study period, representing \$270,983 or 30.78 percent of the contract dollars.

Caucasian Male Business Enterprises received 40 or 63.49 percent of the professional services contracts under \$25,000 during the study period, representing \$609,330 or 69.22 percent of the contract dollars.



**Table 3.13 Professional Services Prime Contractor
Utilization: Contracts under \$25,000, July 1, 2003 to June 30,
2006**

Ethnicity	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
African Americans	3	4.76%	\$33,373	3.79%
Asian Americans	2	3.17%	\$38,703	4.40%
Hispanic Americans	11	17.46%	\$93,557	10.63%
Native Americans	0	0.00%	\$0	0.00%
Caucasian Females	7	11.11%	\$105,352	11.97%
Caucasian Males	40	63.49%	\$609,330	69.22%
TOTAL	63	100.00%	\$880,313	100.00%
Ethnicity and Gender	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
African American Females	1	1.59%	\$3,623	0.41%
African American Males	2	3.17%	\$29,750	3.38%
Asian American Females	2	3.17%	\$38,703	4.40%
Asian American Males	0	0.00%	\$0	0.00%
Hispanic American Females	8	12.70%	\$49,192	5.59%
Hispanic American Males	3	4.76%	\$44,365	5.04%
Native American Females	0	0.00%	\$0	0.00%
Native American Males	0	0.00%	\$0	0.00%
Caucasian Females	7	11.11%	\$105,352	11.97%
Caucasian Males	40	63.49%	\$609,330	69.22%
TOTAL	63	100.00%	\$880,313	100.00%
Minority and Gender	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
Minority Females	11	17.46%	\$91,517	10.40%
Minority Males	5	7.94%	\$74,115	8.42%
Caucasian Females	7	11.11%	\$105,352	11.97%
Caucasian Males	40	63.49%	\$609,330	69.22%
TOTAL	63	100.00%	\$880,313	100.00%
Minority and Women	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
Minority Business Enterprises	16	25.40%	\$165,632	18.82%
Women Business Enterprises	7	11.11%	\$105,352	11.97%
Minority and Women Business Enterprises	23	36.51%	\$270,983	30.78%
Caucasian Male Business Enterprises	40	63.49%	\$609,330	69.22%
TOTAL	63	100.00%	\$880,313	100.00%



4. Goods and Other Services Prime Contractor Utilization: Contracts under \$25,000

Table 3.14 summarizes all contract dollars expended by the City on goods and other services prime contracts under \$25,000. Minority Business Enterprises received 5.42 percent of the goods and other services prime contract dollars; Women Business Enterprises received 5.75 percent; and Caucasian Male Business Enterprises received 88.83 percent.

African Americans received 6 or 3.97 percent of the goods and other services contracts under \$25,000 during the study period, representing \$43,918 or 3.24 percent of the contract dollars.

Asian Americans received 1 or 0.66 percent of the goods and other services contracts under \$25,000 during the study period, representing \$3,986 or 0.29 percent of the contract dollars.

Hispanic Americans received 3 or 1.99 percent of the goods and other services contracts under \$25,000 during the study period, representing \$25,657 or 1.89 percent of the contract dollars.

Native Americans received none of the goods and other services contracts under \$25,000 during the study period.

Minority Business Enterprises received 10 or 6.62 percent of the goods and other services contracts under \$25,000 during the study period, representing \$73,562 or 5.42 percent of the contract dollars.

Women Business Enterprises received 11 or 7.28 percent of the goods and other services contracts under \$25,000 during the study period, representing \$78,014 or 5.75 percent of the contract dollars.

Minority and Women Business Enterprises received 21 or 13.91 percent of the goods and other services contracts under \$25,000 during the study period, representing \$151,575 or 11.17 percent of the contract dollars.

Caucasian Male Business Enterprises received 130 or 86.09 percent of the goods and other services contracts under \$25,000 during the study period, representing \$1,205,859 or 88.83 percent of the contract dollars.



**Table 3.14 Goods and Other Services Prime Contractor
Utilization: Contracts under \$25,000, July 1, 2003 to June 30,
2006**

Ethnicity	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
African Americans	6	3.97%	\$43,918	3.24%
Asian Americans	1	0.66%	\$3,986	0.29%
Hispanic Americans	3	1.99%	\$25,657	1.89%
Native Americans	0	0.00%	\$0	0.00%
Caucasian Females	11	7.28%	\$78,014	5.75%
Caucasian Males	130	86.09%	\$1,205,859	88.83%
TOTAL	151	100.00%	\$1,357,434	100.00%
Ethnicity and Gender	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
African American Females	3	1.99%	\$13,799	1.02%
African American Males	3	1.99%	\$30,119	2.22%
Asian American Females	0	0.00%	\$0	0.00%
Asian American Males	1	0.66%	\$3,986	0.29%
Hispanic American Females	0	0.00%	\$0	0.00%
Hispanic American Males	3	1.99%	\$25,657	1.89%
Native American Females	0	0.00%	\$0	0.00%
Native American Males	0	0.00%	\$0	0.00%
Caucasian Females	11	7.28%	\$78,014	5.75%
Caucasian Males	130	86.09%	\$1,205,859	88.83%
TOTAL	151	100.00%	\$1,357,434	100.00%
Minority and Gender	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
Minority Females	3	1.99%	\$13,799	1.02%
Minority Males	7	4.64%	\$59,763	4.40%
Caucasian Females	11	7.28%	\$78,014	5.75%
Caucasian Males	130	86.09%	\$1,205,859	88.83%
TOTAL	151	100.00%	\$1,357,434	100.00%
Minority and Women	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
Minority Business Enterprises	10	6.62%	\$73,562	5.42%
Women Business Enterprises	11	7.28%	\$78,014	5.75%
Minority and Women Business Enterprises	21	13.91%	\$151,575	11.17%
Caucasian Male Business Enterprises	130	86.09%	\$1,205,859	88.83%
TOTAL	151	100.00%	\$1,357,434	100.00%



V. SUMMARY

The City's prime contractor utilization analysis examined the \$3,607,802,097 expended on the 2,573 contracts awarded between July 1, 2003 to June 30, 2006. The \$3,607,802,097 expended included \$2,241,318,958 for construction, \$287,457,666 for architecture and engineering, \$134,510,200 for professional services, and \$944,515,273 for goods and other services. A total of 2,573 contracts were analyzed, which included 918 for construction, 368 for architecture and engineering, 299 for professional services, and 988 for goods and other services.

The utilization analysis was performed separately for informal and formal contracts. The informal levels included contracts under \$50,000 and \$25,000 for each industry. The analysis of formal contracts was limited to contracts under \$500,000 for each industry. *Chapter 7: Prime Contractor Disparity Analysis* presents the statistical analysis of disparity in each of the four industries.





4

SUBCONTRACTOR UTILIZATION ANALYSIS

I. INTRODUCTION

As discussed in the prime contractor utilization analysis presented in *Chapter 3*, a disparity study documents Minority and Women Business Enterprise (M/WBE) contracting history in the jurisdiction under review. A finding of subcontractor disparity is required to implement a race-based program targeted to benefit M/WBE subcontractors. In order to analyze subcontractor disparity, it is imperative to determine the level of M/WBE and non-M/WBE subcontractor utilization on City of Houston (City) contracts during the July 1, 2003 to June 30, 2006 study period.

II. SUBCONTRACTOR UTILIZATION DATA SOURCES

Mason Tillman collaborated with the City of Houston to undertake extensive efforts to reconstruct subcontractor records for the City's construction architecture and engineering, and professional services contracts. Goods and other services contracts traditionally do not include significant subcontracting activity and they were not included in the analysis.

The City provided subcontractor data extracted from their SAP financial program, hard copy data from project files, and data records that were provided by the prime contractors who had a contract with the City within the study period for all construction, architecture and engineering, and professional services prime contracts.

The data extracted from the SAP financial program consists of only M/WBE data and were therefore not included in the final data set for the subcontractor analysis. Mason Tillman analyzed the reconstructed data for construction and architecture and engineering contracts. There were insufficient records for professional services to perform a statistically significant disparity analysis.



City staff provided indispensable assistance throughout the data collection process.

III. SUBCONTRACTOR UTILIZATION ANALYSIS

As depicted in Table 4.01 below, Mason Tillman was able to reconstruct and analyze 716 subcontracts for the 1,298 prime contracts valued at \$100,000 and more that were awarded between July 1, 2003 and June 30, 2006, the three-year study period for the subcontractor analysis. The 716 subcontracts included 654 construction subcontracts and 62 architecture and engineering subcontracts.

On the subcontracts identified, \$72,416,559 total dollars were expended of which \$69,612,811 were for construction subcontracts and \$2,803,748 were for architecture and engineering subcontracts.

Table 4.01 Total Subcontract Awards and Dollars: All Industries, July 1, 2003 to June 30, 2006

Industry	Total Number of Subcontracts	Total Dollars Expended
Construction	654	\$69,612,811
Architecture and Engineering	62	\$2,803,748
Total	716	\$72,416,559



A. Construction Utilization: All Subcontracts

Table 4.02 depicts construction subcontracts awarded by prime contractors. Minority Business Enterprises received 23.56 percent of the construction subcontract dollars; Women Business Enterprises received 7.47 percent; and Caucasian Male Business Enterprises received 68.97 percent.

African American Businesses received 23 or 3.52 percent of the construction subcontracts during the study period, representing \$5,085,409 or 7.31 percent of the subcontract dollars.

Asian American Businesses received 28 or 4.28 percent of the construction subcontracts during the study period, representing \$1,900,760 or 2.73 percent of the subcontract dollars.

Hispanic American Businesses received 87 or 13.3 percent of the construction subcontracts during the study period, representing \$9,078,353 or 13.04 percent of the subcontract dollars.

Native American Businesses received 4 or 0.61 percent of the construction subcontracts during the study period, representing \$339,401 or 0.49 percent of the subcontract dollars.

Minority Business Enterprises received 142 or 21.71 percent of the construction subcontracts during the study period, representing \$16,403,923 or 23.56 percent of the subcontract dollars.

Women Business Enterprises received 40 or 6.12 percent of the construction subcontracts during the study period, representing \$5,199,052 or 7.47 percent of the subcontract dollars.

Minority and Women Business Enterprises received 182 or 27.83 percent of the construction subcontracts during the study period, representing \$21,602,975 or 31.03 percent of the subcontract dollars.

Caucasian Male Business Enterprises received 472 or 72.17 percent of the construction subcontracts during the study period, representing \$48,009,837 or 68.97 percent of the subcontract dollars.



Table 4.02 Construction Utilization: All Subcontracts, July 1, 2003 to June 30, 2006

Ethnicity	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
African Americans	23	3.52%	\$5,085,409	7.31%
Asian Americans	28	4.28%	\$1,900,760	2.73%
Hispanic Americans	87	13.30%	\$9,078,353	13.04%
Native Americans	4	0.61%	\$339,401	0.49%
Caucasian Females	40	6.12%	\$5,199,052	7.47%
Caucasian Males	472	72.17%	\$48,009,837	68.97%
TOTAL	654	100.00%	\$69,612,811	100.00%
Ethnicity and Gender	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
African American Females	0	0.00%	\$0	0.00%
African American Males	23	3.52%	\$5,085,409	7.31%
Asian American Females	3	0.46%	\$246,802	0.35%
Asian American Males	25	3.82%	\$1,653,958	2.38%
Hispanic American Females	21	3.21%	\$2,266,236	3.26%
Hispanic American Males	66	10.09%	\$6,812,117	9.79%
Native American Females	0	0.00%	\$0	0.00%
Native American Males	4	0.61%	\$339,401	0.49%
Caucasian Females	40	6.12%	\$5,199,052	7.47%
Caucasian Males	472	72.17%	\$48,009,837	68.97%
TOTAL	654	100.00%	69,612,811	100.00%
Minority and Gender	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
Minority Females	24	3.67%	\$2,513,038	3.61%
Minority Males	118	18.04%	\$13,890,885	19.95%
Caucasian Females	40	6.12%	\$5,199,052	7.47%
Caucasian Males	472	72.17%	\$48,009,837	68.97%
TOTAL	654	100.00%	\$69,612,811	100.00%
Minority and Women	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
Minority Business Enterprises	142	21.71%	\$16,403,923	23.56%
Women Business Enterprises	40	6.12%	\$5,199,052	7.47%
Minority and Women Business Enterprises	182	27.83%	\$21,602,975	31.03%
Caucasian Male Business Enterprises	472	72.17%	\$48,009,837	68.97%
TOTAL	654	100.00%	\$69,612,811	100.00%



B. Architecture and Engineering Utilization: All Subcontracts

Table 4.03 depicts architecture and engineering subcontracts awarded by prime contractors. Minority Business Enterprises received 30.22 percent of the architecture and engineering subcontract dollars; Women Business Enterprises received 9.32 percent; and Caucasian Male Business Enterprises received 60.45 percent.

African American Businesses received 1 or 1.61 percent of the architecture and engineering subcontracts during the study period, representing \$167,908 or 5.99 percent of the subcontracting dollars.

Asian American Businesses received 4 or 6.45 percent of the architecture and engineering subcontracts during the study period, representing \$411,848 or 14.69 percent of the subcontracting dollars.

Hispanic American Businesses received 5 or 8.06 percent of the architecture and engineering subcontracts during the study period, representing \$100,309 or 3.58 percent of the subcontracting dollars.

Native American Businesses received 1 or 1.61 percent of the architecture and engineering subcontracts during the study period, representing \$167,301 or 5.97 percent of the subcontracting dollars.

Minority Business Enterprises received 11 or 17.74 percent of the architecture and engineering subcontracts during the study period, representing \$847,366 or 30.22 percent of the subcontract dollars.

Women Business Enterprises received 9 or 14.52 percent of the architecture and engineering subcontracts during the study period, representing \$261,400 or 9.32 percent of the subcontract dollars.

Minority and Women Business Enterprises received 20 or 32.26 percent of the architecture and engineering subcontracts during the study period, representing \$1,108,766 or 39.55 percent of the subcontract dollars.

Caucasian Male Business Enterprises received 42 or 67.74 percent of the architecture and engineering subcontracts during the study period, representing \$1,694,982 or 60.45 percent of the subcontract dollars.



Table 4.03 Architecture and Engineering Utilization: All Subcontracts, July 1, 2003 to June 30, 2006

Ethnicity	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
African Americans	1	1.61%	\$167,908	5.99%
Asian Americans	4	6.45%	\$411,848	14.69%
Hispanic Americans	5	8.06%	\$100,309	3.58%
Native Americans	1	1.61%	\$167,301	5.97%
Caucasian Females	9	14.52%	\$261,400	9.32%
Caucasian Males	42	67.74%	\$1,694,982	60.45%
TOTAL	62	100.00%	\$2,803,748	100.00%
Ethnicity and Gender	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
African American Females	0	0.00%	\$0	0.00%
African American Males	1	1.61%	\$167,908	5.99%
Asian American Females	0	0.00%	\$0	0.00%
Asian American Males	4	6.45%	\$411,848	14.69%
Hispanic American Females	0	0.00%	\$0	0.00%
Hispanic American Males	5	8.06%	\$100,309	3.58%
Native American Females	0	0.00%	\$0	0.00%
Native American Males	1	1.61%	\$167,301	5.97%
Caucasian Females	9	14.52%	\$261,400	9.32%
Caucasian Males	42	67.74%	\$1,694,982	60.45%
TOTAL	62	100.00%	2,803,748	100.00%
Minority and Gender	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
Minority Females	0	0.00%	\$0	0.00%
Minority Males	11	17.74%	\$847,366	30.22%
Caucasian Females	9	14.52%	\$261,400	9.32%
Caucasian Males	42	67.74%	\$1,694,982	60.45%
TOTAL	62	100.00%	\$2,803,748	100.00%
Minority and Women	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
Minority Business Enterprises	11	17.74%	\$847,366	30.22%
Women Business Enterprises	9	14.52%	\$261,400	9.32%
Minority and Women Business Enterprises	20	32.26%	\$1,108,766	39.55%
Caucasian Male Business Enterprises	42	67.74%	\$1,694,982	60.45%
TOTAL	62	100.00%	\$2,803,748	100.00%



5

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.*¹ 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.²

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.³ 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 availability and business utilization. Therefore, the identification of the local market area

¹ 488 U.S. 469 (1989).

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

³ *Croson*, 488 U.S. at 497.



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. It, however, is informative to review the Court's definition of market area in the City of Richmond context. In discussing the scope of the constitutional violation that must be investigated, the Court interchangeably used the terms "relevant market,"⁴ "Richmond construction industry,"⁵ and "city's construction industry"⁶ to define the proper scope of the examination of the existence of discrimination. This substitution 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.⁷ In *Cone Corporation v. Hillsborough County*,⁸ 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."⁹

Similarly, in *Associated General Contractors v. Coalition for Economic Equity (AGCCII)*,¹⁰ 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

⁴ *Croson*, 488 U.S. at 471.

⁵ *Id.* at 500.

⁶ *Id.* at 470.

⁷ See e.g., *Concrete Works of Colorado v. City of Denver, Colorado*, 36 F.3d 1513, 1528 (10th Cir. 1994).

⁸ 908 F.2d 908 (11th Cir. 1990).

⁹ *Id.* at 915.

¹⁰ 950 F.2d 1401 (9th Cir. 1991).



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.¹¹

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.”¹² 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.”¹³ However, the court did note that the “world of contracting does not conform itself neatly to jurisdictional boundaries.”¹⁴

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*,¹⁵ 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

¹¹ *Id.* at 1415.

¹² *Coral Construction v. King County*, 941 F.2d 910, 916 (9th Cir. 1991).

¹³ *Id.* at 917.

¹⁴ *Id.*

¹⁵ 36 F.3d 1513 , 1528 (10th Cir. 1994).



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*,¹⁶ 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."¹⁷

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.¹⁸

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.¹⁹ 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-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.

¹⁶ *AGCCII*, 950 F.2d at 1401.

¹⁷ *Concrete Works*, 36 F.3d at 1528.

¹⁸ *Opportunity Denied! New York State's Study*, 26 *Urban Lawyer* No. 3, Summer 1994.

¹⁹ *Croson*, 488 U.S. at 501.



II. CITY OF HOUSTON'S MARKET AREA

The City of Houston (City) awarded 2,573 construction, architecture and engineering, professional services, and goods and other services contracts valued at \$3,607,802,097 during the study period of July 1, 2003 to June 30, 2006. A total of 70.66 percent of the contracts and 76.69 percent of the dollars were awarded to businesses in the market area of Houston, Texas. In light of standards articulated by *Crososn*, the market area for this Disparity Study was determined by the geographic location of the prime contractors who were awarded the majority of the City's 2,573 contracts. The analysis of discrimination has been limited to that occurring within this market area.

Table 5.01 depicts the overall number of construction, architecture and engineering, professional services, and goods and other services contracts and the dollar value of those contracts awarded by the City between July 1, 2003 and June 30, 2006. Of the 2,573 contracts awarded by the City during the study period, 1,818 or 70.66 percent were awarded to market area businesses. The dollar value of contracts awarded to market area businesses was \$2,766,932,432 or 76.69 percent of all contract dollars awarded.

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

Construction Contracts: 700 or 76.25 percent of these contracts were awarded to market area businesses. The dollar value of those contracts was \$1,820,414,866 or 81.22 percent of the total construction dollars.

Architecture and Engineering Contracts: 359 or 97.55 percent of these contracts were awarded to market area businesses. The dollar value of those contracts was \$281,210,024 or 97.83 percent of the total architecture and engineering dollars.

Professional Services Contracts: 211 or 70.57 percent of these contracts were awarded to market area businesses. The dollar value of those contracts was \$72,914,499 or 54.21 percent of the total professional services dollars.²⁰

Goods and Other Services Contracts: 548 or 55.47 percent were awarded to market area businesses. The dollar value of those contracts was \$592,393,043 or 62.72 percent of the total goods and other services dollars.²¹

²⁰ 33.2 percent of the total professional services dollars were awarded to businesses outside the state of Texas.

²¹ 18.1 percent of the total goods and other service dollars were awarded to businesses outside the state of Texas.



Table 5.01 City of Houston Market Area: July 1, 2003 to June 30, 2006

Market Area	Number of Contracts	Percent of Contracts	Amount of Dollars	Percent of Dollars
Combined Types of Work				
Market Area	1,818	70.66%	\$2,766,932,432	76.69%
Outside Market Area	755	29.34%	\$840,869,666	23.31%
Total	2,573	100.00%	\$3,607,802,097	100.00%
Construction				
Market Area	700	76.25%	\$1,820,414,866	81.22%
Outside Market Area	218	23.75%	\$420,904,093	18.78%
Total	918	100.00%	\$2,241,318,958	100.00%
Architecture and Engineering				
Market Area	359	97.55%	\$281,210,024	97.83%
Outside Market Area	9	2.45%	\$6,247,642	2.17%
Total	368	100.00%	\$287,457,666	100.00%
Professional Services				
Market Area	211	70.57%	\$72,914,499	54.21%
Outside Market Area	88	29.43%	\$61,595,702	45.79%
Total	299	100.00%	\$134,510,200	100.00%
Procurement of Goods and Other Services				
Market Area	548	55.47%	\$592,393,043	62.72%
Outside Market Area	440	44.53%	\$352,122,230	37.28%
Total	988	100.00%	\$944,515,273	100.00%



6

AVAILABILITY ANALYSIS

I. INTRODUCTION

According to *Croson*, availability is defined as the number of businesses in the jurisdiction's market area that are willing and able to provide goods or services.¹ 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. 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: 1) a firm's interest in doing business with the jurisdiction, as implied by the term "willing;" and 2) a firm's ability or capacity to provide a service or good, as implied by the term "able."

The determination of availability must follow from the definition of the jurisdiction's market area. The market area analysis presented in *Chapter 5: Market Area Analysis* defined the City of Houston as the market area for this Study because the majority of the utilized businesses are domiciled in the City.

The compiled list of available businesses includes minority, woman, and Caucasian male-owned businesses in the areas of construction, architecture and engineering services, professional services, and goods and other services. Separate availability lists were compiled for prime contractors and subcontractors within the four industries. Each availability list is presented below.



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

II. PRIME CONTRACTOR AVAILABILITY DATA SOURCES

A. Prime Contractor Sources

Market area M/WBEs and non-M/WBEs willing and able to do business with the City were identified from various sources. Most sources included businesses that had demonstrated their willingness to provide the goods and services procured by the City. For the other sources, willingness of the listed business had to be determined. Table 6.01 lists all the sources used.

Table 6.01 Prime Contractor Availability Data Sources

Source	Type of Information
City of Houston and Other Government Records	
Building Services Departments' Database of Architects and Engineers	M/WBEs and non-M/WBEs
Centralized Masters Bidders List	M/WBEs and non-M/WBEs
City of Houston Bidders	M/WBEs and non-M/WBEs
City of Houston Utilized Prime Contractors	M/WBEs and non-M/WBEs
Public Works and Engineering Active Engineers List	M/WBEs and non-M/WBEs
Public Works and Engineering Contractor Reference List	M/WBEs and non-M/WBEs
State of Texas Utilized Prime Contractors	M/WBEs and non-M/WBEs
Certification Lists	
Central Contractor Registration Assistance	M/WBEs and non-M/WBEs
City of Houston Minority Women and Disadvantaged Business Enterprise Directory	DBEs and M/WBEs
Historically Underutilized Business Program	HUBs
Houston Minority Business Development Center Client Listing	M/WBEs
North Central Texas Regional Certification Agency	DBEs and M/WBEs
Port of Houston Small Business Development Program Approved Vendor	M/WBEs and non-M/WBEs
South Central Texas Regional Certification Agency	DBEs and M/WBEs



Table 6.01 Prime Contractor Availability Data Sources

Source	Type of Information
Texas Unified Certification Program Disadvantaged Business Enterprise Information Directory	DBEs and M/WBEs
United States Small Business Administration: Procurement Marketing and Access Network, City of Houston	M/WBEs and non-M/WBEs
Trade Association Membership Lists	
American Institute of Architects	M/WBEs and non-M/WBEs
Associated Builders and Contractors	M/WBEs and non-M/WBEs
Central Texas Chapter of the Associated General Contractors	M/WBEs and non-M/WBEs
Houston Contractors Association	M/WBEs and non-M/WBEs
Mechanical Contractors Association of Texas	M/WBEs and non-M/WBEs
Southeast Texas Associated General Contractors	M/WBEs and non-M/WBEs
Texas Board of Professional Engineers	M/WBEs and non-M/WBEs
The Associated General Contractors of America, Houston Chapter	M/WBEs and non-M/WBEs
The Associated General Contractors of Jefferson County	M/WBEs and non-M/WBEs
The Associated General Contractors, San Antonio Chapter	M/WBEs and non-M/WBEs
The Austin Chapter of the Associated General Contractors of America	M/WBEs and non-M/WBEs
Women Contractors Association	WBEs
Women's Business Enterprise Alliance Supplier Guide	WBEs
Business Association Membership Lists	
ACCION Texas	M/WBEs and non-M/WBEs
Alamo Asian Chamber of Commerce	M/WBEs and non-M/WBEs
Asian Chamber of Commerce, Houston	M/WBEs and non-M/WBEs
Dallas Black Chamber of Commerce	M/WBEs and non-M/WBEs
Denton Hispanic Chamber of Commerce	M/WBEs and non-M/WBEs
Greater Dallas Asian American Chamber of Commerce	M/WBEs and non-M/WBEs



Table 6.01 Prime Contractor Availability Data Sources

Source	Type of Information
Hispanic Chamber of Commerce of Greater Baytown	M/WBEs and non-M/WBEs
Houston Council of Engineering Companies	M/WBEs and non-M/WBEs
Houston Minority Business Council	M/WBEs
Midland Hispanic Chamber of Commerce	M/WBEs and non-M/WBEs
National Association of Women Business Owners	WBEs
San Antonio Hispanic Chamber of Commerce	M/WBEs and non-M/WBEs
San Antonio Women’s Chamber of Commerce	M/WBEs and non-M/WBEs
Women’s Chamber of Commerce of Texas	M/WBEs and non-M/WBEs

B. Determination of Willingness

The term “willingness” refers to a firm’s indicated interest in doing government contracting. This term, as it has been used in *Croson* and its progeny, is discussed in detail in *Volume I, Chapter 1 Legal Analysis* of this report. Companies identified from the City and other government sources listed in Table 6.01 have demonstrated their willingness to perform on public contracts. These businesses either had bid on City or other government contracts, secured government certification, or responded to the outreach campaign conducted in conjunction with this Study. It is therefore presumed that companies that sought government contracts are willing to provide the goods and services needed by the City.

Companies from the non-government sources listed in Table 6.01 were not presumed to be willing, based on the *Croson* criteria. These companies were surveyed to determine their willingness to bid on City contracts. The surveyed businesses that indicated an interest in contracting with the City were combined with the market area businesses from the government and outreach lists to create a unique list of willing businesses.



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

Tables 6.02 through 6.06 present the distribution of willing prime contractors. The sources are ranked from prime contractors utilized by a City agency to companies identified during the Study outreach activities. Each company in the distribution of sources 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 firm, or as a company identified during outreach.

As noted in Table 6.02, 97.81 percent of the businesses on the unique list of available prime contractors were obtained from the City’s records of utilized contractors, bidders, or various government certification lists. Companies identified through the willingness survey made up 2.19 percent of the available firms.

Table 6.02 Distribution of Prime Contractor Availability Data Sources, All Industries

Sources	M/WBEs Percentage	Non-M/WBEs Percentage	Source Percentage
Prime Contractor Utilization	23.16%	51.68%	41.01%
Bidders Lists	3.63%	3.97%	3.84%
Certification Lists	70.59%	42.41%	52.95%
Subtotal	97.38%	98.06%	97.81%
Willingness Survey	2.62%	1.94%	2.19%
Subtotal	2.62%	1.94%	2.19%
Grand Total*	100.00%	100.00%	100.00%

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



The distribution of available businesses by source was performed for each industry. As noted in Table 6.03, 96.23 percent of the construction companies identified were derived from the City's records and various government certification lists. Companies identified through the willingness survey represent 3.77 percent of the willing firms.

Table 6.03 Distribution of Prime Contractor Availability Data Sources, Construction

Sources	M/WBEs Percentage	Non-M/WBEs Percentage	Source Percentage
Prime Contractor Utilization	24.89%	52.49%	39.74%
Bidders Lists	3.43%	5.52%	4.56%
Certification Lists	69.74%	36.65%	51.93%
Subtotal	98.07%	94.66%	96.23%
Willingness Survey	1.93%	5.34%	3.77%
Subtotal	1.93%	5.34%	3.77%
Grand Total*	100.00%	100.00%	100.00%

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



Table 6.04 depicts the data sources for the available architecture and engineering prime contractors. As noted, 98.07 percent of the architecture and engineering prime contractors were obtained from the City's records and various government certification lists. Companies identified through the willingness survey represent 1.93 percent of the willing firms.

Table 6.04 Distribution of Prime Contractor Availability Data Sources, Architecture and Engineering

Sources	M/WBEs Percentage	Non-M/WBEs Percentage	Source Percentage
Prime Contractor Utilization	33.59%	43.08%	38.34%
Bidders Lists	22.01%	21.92%	21.97%
Certification Lists	43.63%	31.92%	37.76%
Subtotal	99.23%	96.92%	98.07%
Willingness Survey	0.77%	3.08%	1.93%
Subtotal	0.77%	3.08%	1.93%
Grand Total*	100.00%	100.00%	100.00%

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



Table 6.05 depicts the data sources for available professional services prime contractors. As noted, 96.54 percent of the professional services prime contractors were obtained from the City's records and various government certification lists. Companies identified through the willingness survey represent 3.46 percent of the willing firms.

Table 6.05 Distribution of Prime Contractor Availability Data Sources, Professional Services

Sources	M/WBEs Percentage	Non-M/WBEs Percentage	Source Percentage
Prime Contractor Utilization	17.18%	35.70%	27.92%
Bidders Lists	2.41%	0.75%	1.44%
Certification Lists	75.26%	61.32%	67.17%
Subtotal	94.85%	97.76%	96.54%
Willingness Survey	5.15%	2.24%	3.46%
Subtotal	5.15%	2.24%	3.46%
Grand Total*	100.00%	100.00%	100.00%

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



Table 6.06 depicts the data sources for available goods and other services prime contractors. As noted, 98.81 percent of the goods and other services prime contractors were obtained from City's records and various government certification lists. Companies identified through the willingness survey represent 1.19 percent of the willing firms.

Table 6.06 Distribution of Prime Contractor Availability Data Sources, Goods and Other Services

Sources	M/WBEs Percentage	Non-M/WBEs Percentage	Source Percentage
Prime Contractor Utilization	28.20%	60.36%	48.54%
Bidders Lists	2.10%	2.96%	2.64%
Certification Lists	68.11%	35.72%	47.63%
Subtotal	98.41%	99.04%	98.81%
Willingness Survey	1.59%	0.96%	1.19%
Subtotal	1.59%	0.96%	1.19%
Grand Total*	100.00%	100.00%	100.00%

* 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 firm's capacity or ability to work on the contracts awarded by the jurisdiction.² However, capacity requirements are not delineated in *Croson*. In fact, a standard for capacity has only been addressed in a few cases. Each case where capacity has been considered has involved large, competitively bid construction prime contracts. Therefore, in order to assess the capacity of willing market area firms to do business with the City, four approaches were employed.

- 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 M/WBE certification process was assessed to determine if it meets the standard set in *Contractors Ass'n of Eastern Pennsylvania v. City of Philadelphia (Philadelphia)*,³ which found certification to be a measure of capacity
- The disparity analysis has been restricted to an examination of the prime contract awards in the amount of \$500,000 or less to limit the capacity required to perform the contracts subjected to the statistical analysis

This methodology was sufficient to determine the capacity of the willing market area firms to do business with the City.

A. Size of Prime Contracts Analyzed

In *Associated General Contractors of California v. City of Columbus* and *Engineering Contractors Ass'n of South Florida v. Metropolitan Dade City*, the courts were primarily 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.⁴

The City's construction, architecture and engineering, professional services, and goods and other services contracts were analyzed to determine the size of awarded contracts and,

² *Croson*, 488 U.S. 469.

³ *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).

⁴ *Associated General Contractors of California v. City of Columbus*, 936 F. Supp. 1363 (S.D. Ohio 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).



therefore, the capacity required to perform the City's contracts. The size distribution illustrates the fact that limited capacity is needed to perform the overwhelming majority of the City's contracts. The analysis in Table 6.07, which combines all industries, demonstrates that 9.56 percent of the City's contracts were less than \$25,000, 25.77 percent were less than \$100,000, and 56.28 percent were less than \$500,000. Contracts that were more than \$500,000 constitute 43.72 percent.

1. Construction Contracts by Size

Table 6.08 depicts the City's construction contracts awarded within the eight dollar ranges. Contracts valued at less than \$25,000 were 1.74 percent; those less than \$100,000 were 8.93 percent; and those less than \$500,000 were 30.5 percent.

The P-value⁵ of <0.05 denotes a significant difference in the size of construction contract dollars awarded to the ethnic and gender groups.

2. Architecture and Engineering Contracts by Size

Table 6.09 depicts the City's architecture and engineering contracts within the eight dollar ranges. Contracts valued at less than \$25,000 were 4.35 percent; those less than \$100,000 were 15.49 percent; and those less than \$500,000 were 60.87 percent.

The P-value of <0.001 denotes a significant difference in the size of architecture and engineering contract dollars awarded to the ethnic and gender groups

3. Professional Services Contracts by Size

Table 6.10 depicts professional services contracts within the eight dollar ranges. Contracts valued at less than \$25,000 were 21.07 percent; those less than \$100,000 were 47.49 percent; and those less than \$500,000 were 81.61 percent.

The P-value of >.05 indicates that there is no significant difference in the size of professional services contract dollars awarded to the ethnic and gender groups.



⁵ P-value is the probability that a given statistical finding is due to chance. When a P-value is very small, it means that the finding is very unlikely to be a chance occurrence and is very likely to represent an existing pattern. The industry standard is that if a P-value is less than 0.05, or in other words, the probability that a given finding is due to chance is less than 5 percent, the finding is considered statistically significant. "P-value<0.001" indicates a very strong statistical significance.

4. Goods and Other Services Contracts by Size

Table 6.11 depicts goods and other services contracts within the eight dollar ranges. Contracts valued at less than \$25,000 were 15.28 percent; those less than \$100,000 were 38.66 percent; and those less than \$500,000 were 70.85 percent.

The P-value of <0.01 denotes a significant difference in the size of goods and other services contract dollars awarded to the ethnic and gender groups.



Table 6.07 Prime Contracts by Size: All Industries, July 1, 2003 to June 30, 2006

Size	Caucasian				Minority				Total	
	Females		Males		Females		Males		Freq	Percent
	Freq	Percent	Freq	Percent	Freq	Percent	Freq	Percent		
\$1 - \$24,999	19	16.24%	192	9.33%	14	20.29%	21	6.38%	246	9.56%
\$25,000 - \$49,999	11	9.40%	150	7.29%	5	7.25%	20	6.08%	186	7.23%
\$50,000 - \$99,999	11	9.40%	193	9.38%	3	4.35%	24	7.29%	231	8.98%
\$100,000 - \$249,999	16	13.68%	322	15.65%	16	23.19%	51	15.50%	405	15.74%
\$250,000 - \$499,999	13	11.11%	279	13.56%	10	14.49%	78	23.71%	380	14.77%
\$500,000 - \$999,999	23	19.66%	308	14.97%	9	13.04%	58	17.63%	398	15.47%
\$1,000,000 - \$2,999,999	10	8.55%	329	15.99%	5	7.25%	53	16.11%	397	15.43%
\$3,000,000 and greater	14	11.97%	285	13.85%	7	10.14%	24	7.29%	330	12.83%
Total	117	100.00%	2058	100.00%	69	100.00%	329	100.00%	2573	100.00%

P-Value < 0.001

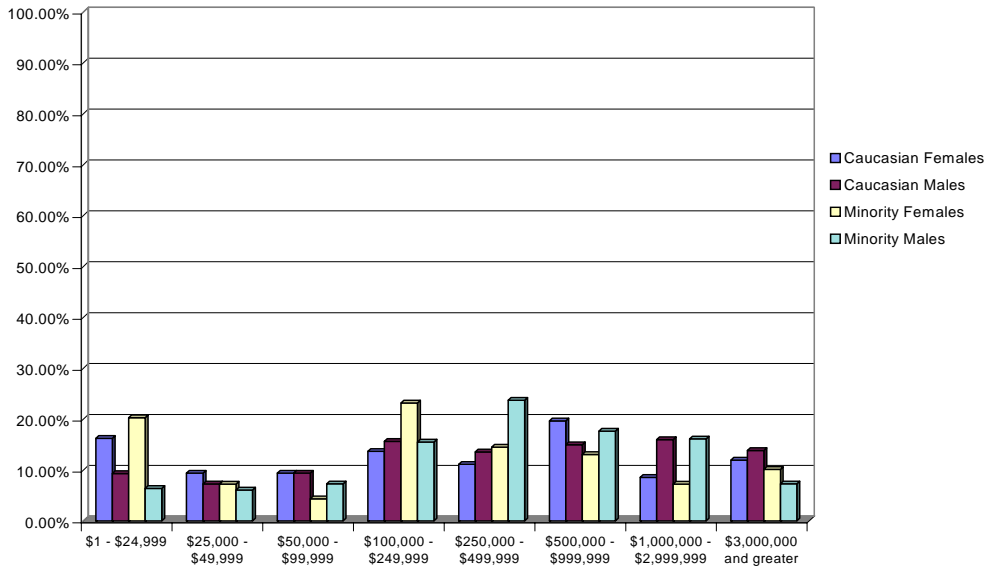


Table 6.08 Construction Prime Contracts by Size: July 1, 2003 to June 30, 2006

Size	Caucasian				Minority				Total	
	Females		Males		Females		Males			
	Freq	Percent	Freq	Percent	Freq	Percent	Freq	Percent	Freq	Percent
\$1 - \$24,999	0	0.00%	13	1.69%	0	0.00%	3	3.30%	16	1.74%
\$25,000 - \$49,999	0	0.00%	16	2.08%	0	0.00%	5	5.49%	21	2.29%
\$50,000 - \$99,999	1	2.78%	41	5.32%	0	0.00%	3	3.30%	45	4.90%
\$100,000 - \$249,999	2	5.56%	62	8.05%	8	38.10%	12	13.19%	84	9.15%
\$250,000 - \$499,999	8	22.22%	92	11.95%	2	9.52%	12	13.19%	114	12.42%
\$500,000 - \$999,999	10	27.78%	108	14.03%	3	14.29%	18	19.78%	139	15.14%
\$1,000,000 - \$2,999,999	4	11.11%	227	29.48%	3	14.29%	26	28.57%	260	28.32%
\$3,000,000 and greater	11	30.56%	211	27.40%	5	23.81%	12	13.19%	239	26.03%
Total	36	100.00%	770	100.00%	21	100.00%	91	100.00%	918	100.00%

P-Value < 0.05

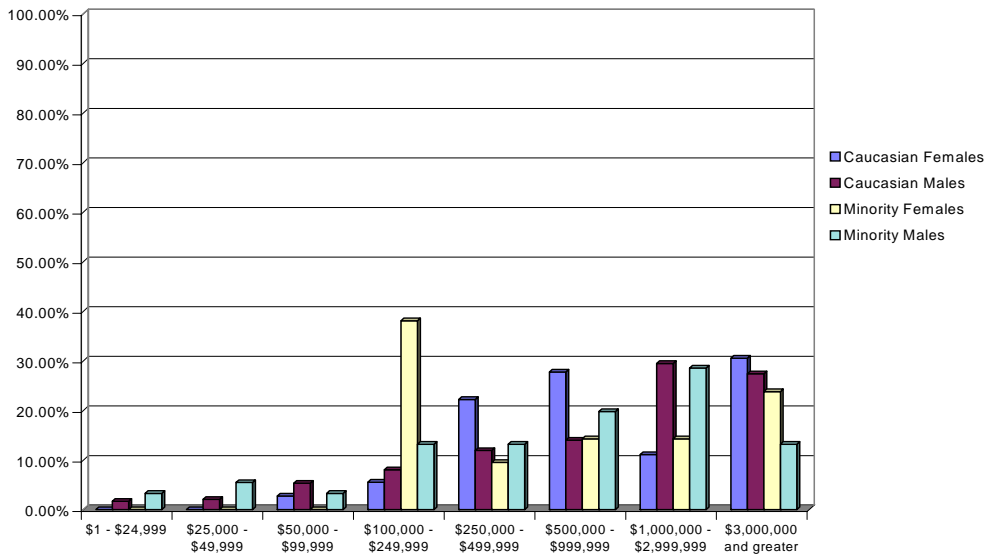
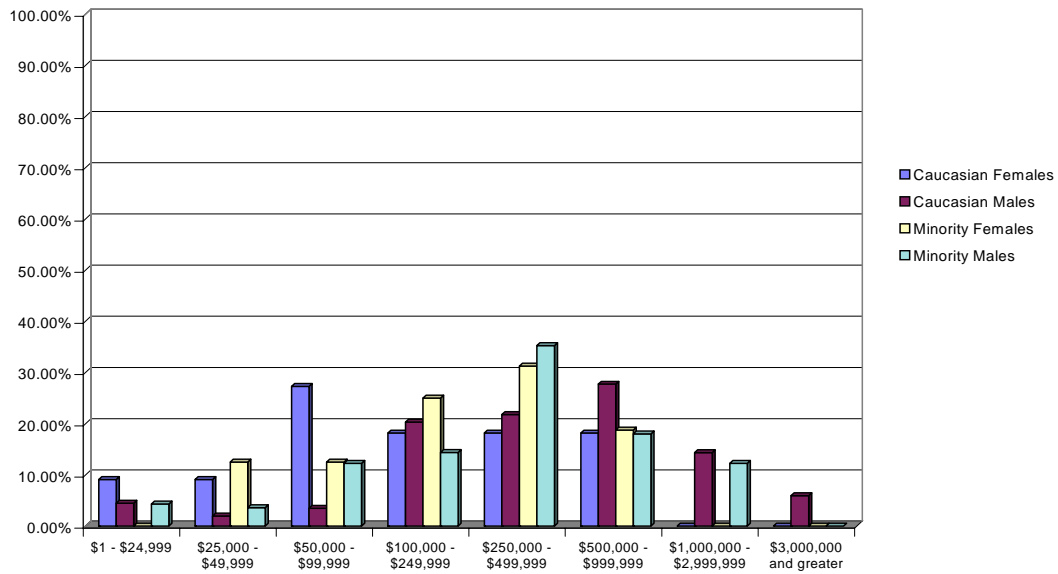


Table 6.09 Architecture and Engineering Prime Contracts by Size: July 1, 2003 to June 30, 2006

Size	Caucasian				Minority				Total	
	Females		Males		Females		Males		Freq	Percent
	Freq	Percent	Freq	Percent	Freq	Percent	Freq	Percent		
\$1 - \$24,999	1	9.09%	9	4.46%	0	0.00%	6	4.32%	16	4.35%
\$25,000 - \$49,999	1	9.09%	4	1.98%	2	12.50%	5	3.60%	12	3.26%
\$50,000 - \$99,999	3	27.27%	7	3.47%	2	12.50%	17	12.23%	29	7.88%
\$100,000 - \$249,999	2	18.18%	41	20.30%	4	25.00%	20	14.39%	67	18.21%
\$250,000 - \$499,999	2	18.18%	44	21.78%	5	31.25%	49	35.25%	100	27.17%
\$500,000 - \$999,999	2	18.18%	56	27.72%	3	18.75%	25	17.99%	86	23.37%
\$1,000,000 - \$2,999,999	0	0.00%	29	14.36%	0	0.00%	17	12.23%	46	12.50%
\$3,000,000 and greater	0	0.00%	12	5.94%	0	0.00%	0	0.00%	12	3.26%
Total	11	100.00%	202	100.00%	16	100.00%	139	100.00%	368	100.00%

P-Value < 0.001



**Table 6.10 Professional Services Prime Contracts by Size:
July 1, 2003 to June 30, 2006**

Size	Caucasian				Minority				Total	
	Females		Males		Females		Males		Freq	Percent
	Freq	Percent	Freq	Percent	Freq	Percent	Freq	Percent		
\$1 - \$24,999	7	29.17%	40	18.52%	11	61.11%	5	12.20%	63	21.07%
\$25,000 - \$49,999	6	25.00%	24	11.11%	2	11.11%	7	17.07%	39	13.04%
\$50,000 - \$99,999	1	4.17%	35	16.20%	1	5.56%	3	7.32%	40	13.38%
\$100,000 - \$249,999	6	25.00%	40	18.52%	2	11.11%	7	17.07%	55	18.39%
\$250,000 - \$499,999	0	0.00%	35	16.20%	2	11.11%	10	24.39%	47	15.72%
\$500,000 - \$999,999	2	8.33%	24	11.11%	0	0.00%	7	17.07%	33	11.04%
\$1,000,000 - \$2,999,999	1	4.17%	12	5.56%	0	0.00%	1	2.44%	14	4.68%
\$3,000,000 and greater	1	4.17%	6	2.78%	0	0.00%	1	2.44%	8	2.68%
Total	24	100.00%	216	100.00%	18	100.00%	41	100.00%	299	100.00%

P-Value > 0.05

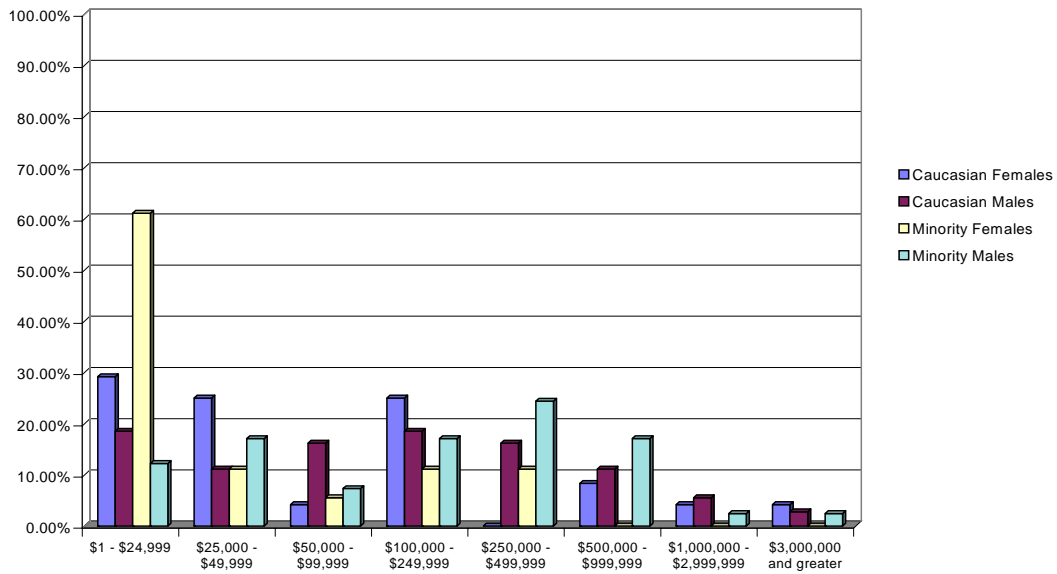
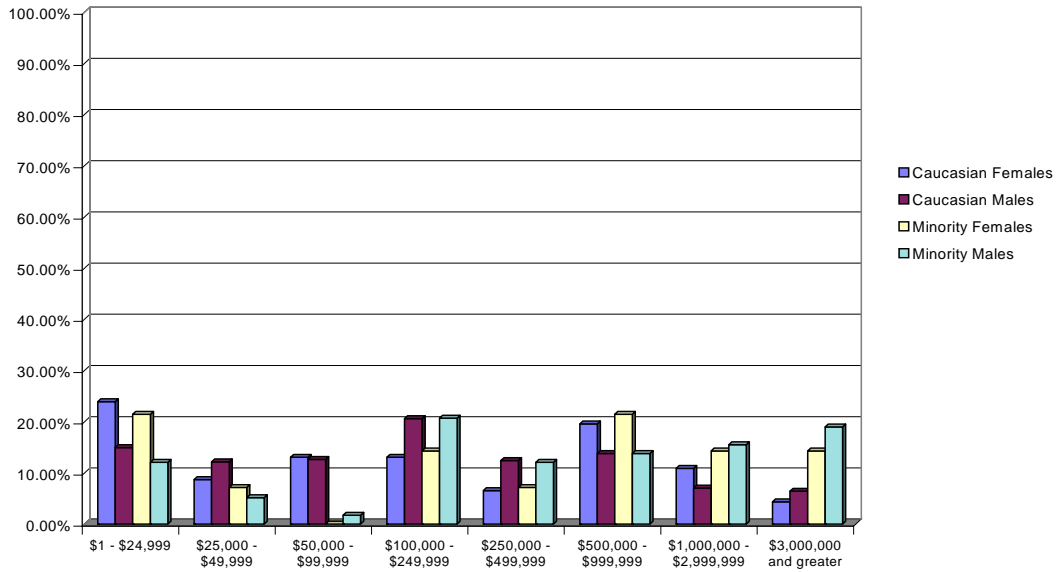


Table 6.11 Goods and Other Services Prime Contracts by Size: July 1, 2003 to June 30, 2006

Size	Caucasian				Minority				Total	
	Females		Males		Females		Males		Freq	Percent
	Freq	Percent	Freq	Percent	Freq	Percent	Freq	Percent		
\$1 - \$24,999	11	23.91%	130	14.94%	3	21.43%	7	12.07%	151	15.28%
\$25,000 - \$49,999	4	8.70%	106	12.18%	1	7.14%	3	5.17%	114	11.54%
\$50,000 - \$99,999	6	13.04%	110	12.64%	0	0.00%	1	1.72%	117	11.84%
\$100,000 - \$249,999	6	13.04%	179	20.57%	2	14.29%	12	20.69%	199	20.14%
\$250,000 - \$499,999	3	6.52%	108	12.41%	1	7.14%	7	12.07%	119	12.04%
\$500,000 - \$999,999	9	19.57%	120	13.79%	3	21.43%	8	13.79%	140	14.17%
\$1,000,000 - \$2,999,999	5	10.87%	61	7.01%	2	14.29%	9	15.52%	77	7.79%
\$3,000,000 and greater	2	4.35%	56	6.44%	2	14.29%	11	18.97%	71	7.19%
Total	46	100.00%	870	100.00%	14	100.00%	58	100.00%	988	100.00%

P-Value < 0.01



B. Largest M/WBE Prime Contract Awards by Industry

M/WBEs were awarded large prime contracts in every industry. The distribution of the largest M/WBE prime contracts awarded is depicted in Table 6.12 below. In each industry, M/WBEs were awarded large, competitively bid contracts. The utilization analysis shows that M/WBEs demonstrated the capacity to successfully compete for contracts as large as \$16.9 million in construction, \$2.6 million in architecture and engineering, \$4 million in professional services, and \$19 million in goods and other services.

Table 6.12 Largest M/WBE Prime Contract Awards by Industry

Ethnic Group	Largest Prime Contract Value			
	Construction	Architecture and Engineering	Professional Services	Goods and Other Services
African Americans	\$2,347,645	\$1,419,880	\$1,846,219	\$4,441,305
Asian Americans	\$16,865,750	\$2,512,800	\$4,037,000	\$4,367,589
Hispanic Americans	\$8,620,628	\$2,600,000	\$375,200	\$19,031,082
Native Americans	\$1,396,893	\$0	\$769,225	\$4,000,000
Caucasian Females	\$11,319,615	\$616,000	\$3,339,000	\$3,402,432
M/WBEs	\$16,865,750	\$2,600,000	\$4,037,000	\$19,031,082

C. City of Houston Certification Standards

Philadelphia is the only appellate court decision to address the merits of certification as a measure of capacity.⁶ The court found that programs certifying MBEs for the City of Philadelphia construction projects funded by the United States Department of Transportation (USDOT) satisfied the determination of a firm's capability. Thus, a certification process which reviews the qualifications of an applicant using the standards set forth in the USDOT regulations, 49 Code of Federal Regulations Part 26, would be sufficient to demonstrate the capability of MBEs.

⁶ *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).



IV. PRIME CONTRACTOR AVAILABILITY ANALYSIS

The analysis of the size of the City's contracts demonstrates that the capacity needed to perform on most of the contracts is limited. Furthermore, the awards the City has made to M/WBE firms demonstrates that the capacity of the willing firms is considerably greater than what is needed to bid on the majority of the contracts awarded in each of the industries studied. The prime contractor availability findings are summarized below.

A. Construction Prime Contractor Availability

The distribution of available construction prime contractors is summarized in Table 6.13 below:

African Americans account for 16.06 percent of the construction firms in the City's market area.

Asian Americans account for 3.96 percent of the construction firms in the City's market area.

Hispanic Americans account for 17.54 percent of the construction firms in the City's market area.

Native Americans account for 0.99 percent of the construction firms in the City's market area.

Minority Business Enterprises account for 38.55 percent of the construction firms in the City's market area.

Women Business Enterprises account for 7.63 percent of the construction firms in the City's market area.

Minority and Women Business Enterprises account for 46.18 percent of the construction firms in the City's market area.

Caucasian Male Business Enterprises account for 53.82 percent of the construction firms in the City's market area.



Table 6.13 Available Construction Prime Contractors

Ethnicity	Percent of Businesses
African Americans	16.06%
Asian Americans	3.96%
Hispanic Americans	17.54%
Native Americans	0.99%
Caucasian Females	7.63%
Caucasian Males	53.82%
TOTAL	100.00%
Ethnicity and Gender	Percent of Businesses
African American Females	2.68%
African American Males	13.38%
Asian American Females	1.39%
Asian American Males	2.58%
Hispanic American Females	3.47%
Hispanic American Males	14.07%
Native American Females	0.30%
Native American Males	0.69%
Caucasian Females	7.63%
Caucasian Males	53.82%
TOTAL	100.00%
Minority and Gender	Percent of Businesses
Minority Females	7.83%
Minority Males	30.72%
Caucasian Females	7.63%
Caucasian Males	53.82%
TOTAL	100.00%
Minority and Females	Percent of Businesses
Minority Business Enterprises	38.55%
Women Business Enterprises	7.63%
Minority and Women Business Enterprises	46.18%
Caucasian Male Business Enterprises	53.82%
TOTAL	100.00%



B. Architecture and Engineering Prime Contractor Availability

The distribution of available architecture and engineering prime contractors is summarized in Table 6.14.

African Americans account for 9.44 percent of the architecture and engineering firms in the City's market area.

Asian Americans account for 15.41 percent of the architecture and engineering firms in the City's market area.

Hispanic Americans account for 12.14 percent of the architecture and engineering firms in the City's market area.

Native Americans account for 0.77 percent of the architecture and engineering firms in the City's market area.

Minority Business Enterprises account for 37.76 percent of the architecture and engineering firms in the City's market area.

Women Business Enterprises account for 12.14 percent of the architecture and engineering firms in the City's market area.

Minority and Women Business Enterprises account for 49.9 percent of the architecture and engineering firms in the City's market area.

Caucasian Male Business Enterprises account for 50.1 percent of the architecture and engineering firms in the City's market area.



Table 6.14 Available Architecture and Engineering Prime Contractors

Ethnicity	Percent of Businesses
African Americans	9.44%
Asian Americans	15.41%
Hispanic Americans	12.14%
Native Americans	0.77%
Caucasian Females	12.14%
Caucasian Males	50.10%
TOTAL	100.00%
Ethnicity and Gender	Percent of Businesses
African American Females	1.16%
African American Males	8.29%
Asian American Females	1.54%
Asian American Males	13.87%
Hispanic American Females	2.50%
Hispanic American Males	9.63%
Native American Females	0.19%
Native American Males	0.58%
Caucasian Females	12.14%
Caucasian Males	50.10%
TOTAL	100.00%
Minority and Gender	Percent of Businesses
Minority Females	5.39%
Minority Males	32.37%
Caucasian Females	12.14%
Caucasian Males	50.10%
TOTAL	100.00%
Minority and Females	Percent of Businesses
Minority Business Enterprises	37.76%
Women Business Enterprises	12.14%
Minority and Women Business Enterprises	49.90%
Caucasian Male Business Enterprises	50.10%
TOTAL	100.00%



C. Professional Services Prime Contractor Availability

The distribution of available professional services prime contractors is summarized in Table 6.15 below:

African Americans account for 12.12 percent of the professional services firms in the City's market area.

Asian Americans account for 7 percent of the professional services firms in the City's market area.

Hispanic Americans account for 6.64 percent of the professional services firms in the City's market area.

Native Americans account for 0.65 percent of the professional services firms in the City's market area.

Minority Business Enterprises account for 26.41 percent of the professional services firms in the City's market area.

Women Business Enterprises account for 15.58 percent of the professional services firms in the City's market area.

Minority and Women Business Enterprises account for 41.99 percent of the professional services firms in the City's market area.

Caucasian Male Business Enterprises account for 58.01 percent of the professional services firms in the City's market area.



Table 6.15 Available Professional Services Prime Contractors

Ethnicity	Percent of Businesses
African Americans	12.12%
Asian Americans	7.00%
Hispanic Americans	6.64%
Native Americans	0.65%
Caucasian Females	15.58%
Caucasian Males	58.01%
TOTAL	100.00%
Ethnicity and Gender	Percent of Businesses
African American Females	4.47%
African American Males	7.65%
Asian American Females	2.74%
Asian American Males	4.26%
Hispanic American Females	1.59%
Hispanic American Males	5.05%
Native American Females	0.22%
Native American Males	0.43%
Caucasian Females	15.58%
Caucasian Males	58.01%
TOTAL	100.00%
Minority and Gender	Percent of Businesses
Minority Females	9.02%
Minority Males	17.39%
Caucasian Females	15.58%
Caucasian Males	58.01%
TOTAL	100.00%
Minority and Females	Percent of Businesses
Minority Business Enterprises	26.41%
Women Business Enterprises	15.58%
Minority and Women Business Enterprises	41.99%
Caucasian Male Business Enterprises	58.01%
TOTAL	100.00%



D. Goods and Other Services Prime Contractor Availability

The distribution of available goods and other services prime contractors is summarized in Table 6.16.

African Americans account for 11.2 percent of the goods and other services firms in the City's market area.

Asian Americans account for 4.65 percent of the goods and other services firms in the City's market area.

Hispanic Americans account for 8.65 percent of the goods and other services firms in the City's market area.

Native American Businesses account for 0.54 percent of the goods and other services firms in the City's market area.

Minority Business Enterprises account for 25.05 percent of the goods and other services firms in the City's market area.

Women Business Enterprises account for 11.7 percent of the goods and other services firms in the City's market area.

Minority and Women Business Enterprises account for 36.75 percent of the goods and other services firms in the City's market area.

Caucasian Male Business Enterprises account for 63.25 percent of the goods and other services firms in the City's market area.



Table 6.16 Available Goods and Other Services Prime Contractors

Ethnicity	Percent of Businesses
African Americans	11.20%
Asian Americans	4.65%
Hispanic Americans	8.65%
Native Americans	0.54%
Caucasian Females	11.70%
Caucasian Males	63.25%
TOTAL	100.00%
Ethnicity and Gender	Percent of Businesses
African American Females	3.49%
African American Males	7.72%
Asian American Females	1.47%
Asian American Males	3.18%
Hispanic American Females	2.36%
Hispanic American Males	6.29%
Native American Females	0.19%
Native American Males	0.35%
Caucasian Females	11.70%
Caucasian Males	63.25%
TOTAL	100.00%
Minority and Gender	Percent of Businesses
Minority Females	7.51%
Minority Males	17.54%
Caucasian Females	11.70%
Caucasian Males	63.25%
TOTAL	100.00%
Minority and Females	Percent of Businesses
Minority Business Enterprises	25.05%
Women Business Enterprises	11.70%
Minority and Women Business Enterprises	36.75%
Caucasian Male Business Enterprises	63.25%
TOTAL	100.00%



V. SUBCONTRACTOR AVAILABILITY ANALYSIS

A. Sources of Potentially Willing and Able Subcontractors and Availability

All available prime contractors were also included in the calculation of subcontractor availability. Additional subcontractors in the City's market area were identified using sources in Table 6.17.

Table 6.17 Unique Subcontractor Availability Data Sources

Type Record	Type Information
<ul style="list-style-type: none">• Subcontracting records provided by the City	<ul style="list-style-type: none">• M/WBEs and non-M/WBEs
<ul style="list-style-type: none">• Prime contractor survey which identified subcontractors utilized by the City	<ul style="list-style-type: none">• 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 6.18.

African Americans account for 14.09 percent of the construction firms in the City's market area.

Asian Americans account for 4.37 percent of the construction firms in the City's market area.

Hispanic Americans account for 16.68 percent of the construction firms in the City's market area.

Native Americans account for 0.89 percent of the construction firms in the City's market area.

Minority Business Enterprises account for 36.03 percent of the construction firms in the City's market area.

Women Business Enterprises account for 7.21 percent of the construction firms in the City's market area.

Minority and Women Business Enterprises account for 43.24 percent of the construction firms in the City's market area.

Caucasian Male Business Enterprises account for 56.76 percent of the construction firms in the City's market area.



Table 6.18 Available Construction Subcontractors

Ethnicity	Percent of Businesses
African Americans	14.09%
Asian Americans	4.37%
Hispanic Americans	16.68%
Native Americans	0.89%
Caucasian Females	7.21%
Caucasian Males	56.76%
TOTAL	100.00%
Ethnicity and Gender	Percent of Businesses
African American Females	2.27%
African American Males	11.82%
Asian American Females	1.38%
Asian American Males	3.00%
Hispanic American Females	3.24%
Hispanic American Males	13.44%
Native American Females	0.32%
Native American Males	0.57%
Caucasian Females	7.21%
Caucasian Males	56.76%
TOTAL	100.00%
Minority and Gender	Percent of Businesses
Minority Females	7.21%
Minority Males	28.83%
Caucasian Females	7.21%
Caucasian Males	56.76%
TOTAL	100.00%
Minority and Females	Percent of Businesses
Minority Business Enterprises	36.03%
Women Business Enterprises	7.21%
Minority and Women Business Enterprises	43.24%
Caucasian Male Business Enterprises	56.76%
TOTAL	100.00%



D. Architecture and Engineering Subcontractor Availability

The distribution of available architecture and engineering subcontractors is summarized in Table 6.19.

African Americans account for 9.83 percent of the architecture and engineering firms in the City's market area.

Asian Americans account for 15.03 percent of the architecture and engineering firms in the City's market area.

Hispanic Americans account for 12.62 percent of the architecture and engineering firms in the City's market area.

Native Americans account for 1.11 percent of the architecture and engineering firms in the City's market area.

Minority Business Enterprises account for 38.59 percent of the architecture and engineering firms in the City's market area.

Women Business Enterprises account for 12.06 percent of the architecture and engineering firms in the City's market area.

Minority and Women Business Enterprises account for 50.65 percent of the architecture and engineering firms in the City's market area.

Caucasian Male Business Enterprises account for 49.35 percent of the architecture and engineering firms in the City's market area.



Table 6.19 Available Architecture and Engineering Subcontractors

Ethnicity	Percent of Businesses
African Americans	9.83%
Asian Americans	15.03%
Hispanic Americans	12.62%
Native Americans	1.11%
Caucasian Females	12.06%
Caucasian Males	49.35%
TOTAL	100.00%
Ethnicity and Gender	Percent of Businesses
African American Females	1.30%
African American Males	8.53%
Asian American Females	1.48%
Asian American Males	13.54%
Hispanic American Females	2.78%
Hispanic American Males	9.83%
Native American Females	0.37%
Native American Males	0.74%
Caucasian Females	12.06%
Caucasian Males	49.35%
TOTAL	100.00%
Minority and Gender	Percent of Businesses
Minority Females	5.94%
Minority Males	32.65%
Caucasian Females	12.06%
Caucasian Males	49.35%
TOTAL	100.00%
Minority and Females	Percent of Businesses
Minority Business Enterprises	38.59%
Women Business Enterprises	12.06%
Minority and Women Business Enterprises	50.65%
Caucasian Male Business Enterprises	49.35%
TOTAL	100.00%



7

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 Houston (City) contracts. 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/WBEs¹ in the relevant market area. If the available M/WBEs businesses are underutilized, a statistical test can determine the probability that the disparity is due to chance. If there is a low probability that the disparity is due to chance,² *Croson* states that 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/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/gender group and the **actual contract amount** received by each group.

A disparity ratio less than 0.80 indicates a relevant degree of disparity. This disparity may be detected using a parametric analysis,³ where the number of contracts is sufficiently large and the variation of the contract amount is not too large. When the variation in contract

¹ Availability is defined as the number of willing and able firms. The methodology for determining willing and able firms is detailed in *Chapter 6: Availability Analysis*.

² When conducting statistical tests, a confidence level 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 to be 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.

³ 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.



dollar amounts is high, a disparity may not be detectable. Under the condition when the variation in contract dollar amounts is high, a non-parametric analysis⁴ would be employed to analyze the contracts ranked by dollar amount.

In order to assess whether the difference in contract values is attributable to chance, a P-value⁵ 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.⁶

There are two critical constraints in performing statistical tests of significance. First, the size of the population affects the reliability of the 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 reliability 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/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 prime contract dollars for each ethnic and gender group incorporates the number of prime contracts awarded. Hence, the disparity analysis for the value of prime contract dollars awarded reflects an analysis of both the number of prime contracts awarded and the value of the prime contract dollars received by each ethnic/gender group.

II. DISPARITY ANALYSIS

Prime contract disparity analysis was performed on construction, architecture and engineering, professional services, and goods and other services contracts awarded between July 1, 2003 and June 30, 2006.

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 Caucasian males.



As demonstrated in *Chapter 6: Availability Analysis*, many of the City's contracts were small with 9.56 percent under \$25,000, 25.77 percent under \$100,000, and 56.28 percent under \$500,000. The fact that many of the City's contracts were small suggests that the capacity needed to perform most of the contracts awarded during the study period was minimal. There is also evidence that the willing firms had the capacity to perform contracts in excess of \$500,000. Therefore, a threshold of \$500,000 was set for the prime contract disparity analysis to ensure that willing firms had the capacity to perform contracts included in the analysis. The prime contract disparity findings in the four industries under consideration are summarized below.



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

1. Construction Prime Contracts under \$500,000

The disparity analysis of all construction prime contracts under \$500,000 is depicted in Table 7.01 and Chart 7.01.

African American Businesses represent 16.06 percent of the available construction firms and received 6.95 percent of the construction prime contracts under \$500,000. This underutilization is statistically significant.

Asian American Businesses represent 3.96 percent of the available construction firms and received none of the construction prime contracts under \$500,000. This underutilization is statistically significant.

Hispanic American Businesses represent 17.54 percent of the available construction firms and received 6.16 percent of the construction prime contracts under \$500,000. This underutilization is statistically significant.

Native American Businesses represent 0.99 percent of the available construction firms and received 0.57 percent of the construction prime contracts under \$500,000. While this group was underutilized, there were too few available firms to determine statistical significance.

Minority Business Enterprises represent 38.55 percent of the available construction firms and received 13.67 percent of the construction prime contracts under \$500,000. This underutilization is statistically significant.

Women Business Enterprises represent 7.63 percent of the available construction firms and received 5.36 percent of the construction prime contracts under \$500,000. This underutilization is not statistically significant.

Minority and Women Business Enterprises represent 46.18 percent of available construction firms and received 19.03 percent of the construction prime contracts under \$500,000. This underutilization is statistically significant.

Caucasian Male Business Enterprises represent 53.82 percent of the available construction firms and received 80.97 percent of the construction prime contracts under \$500,000. This overutilization is statistically significant.

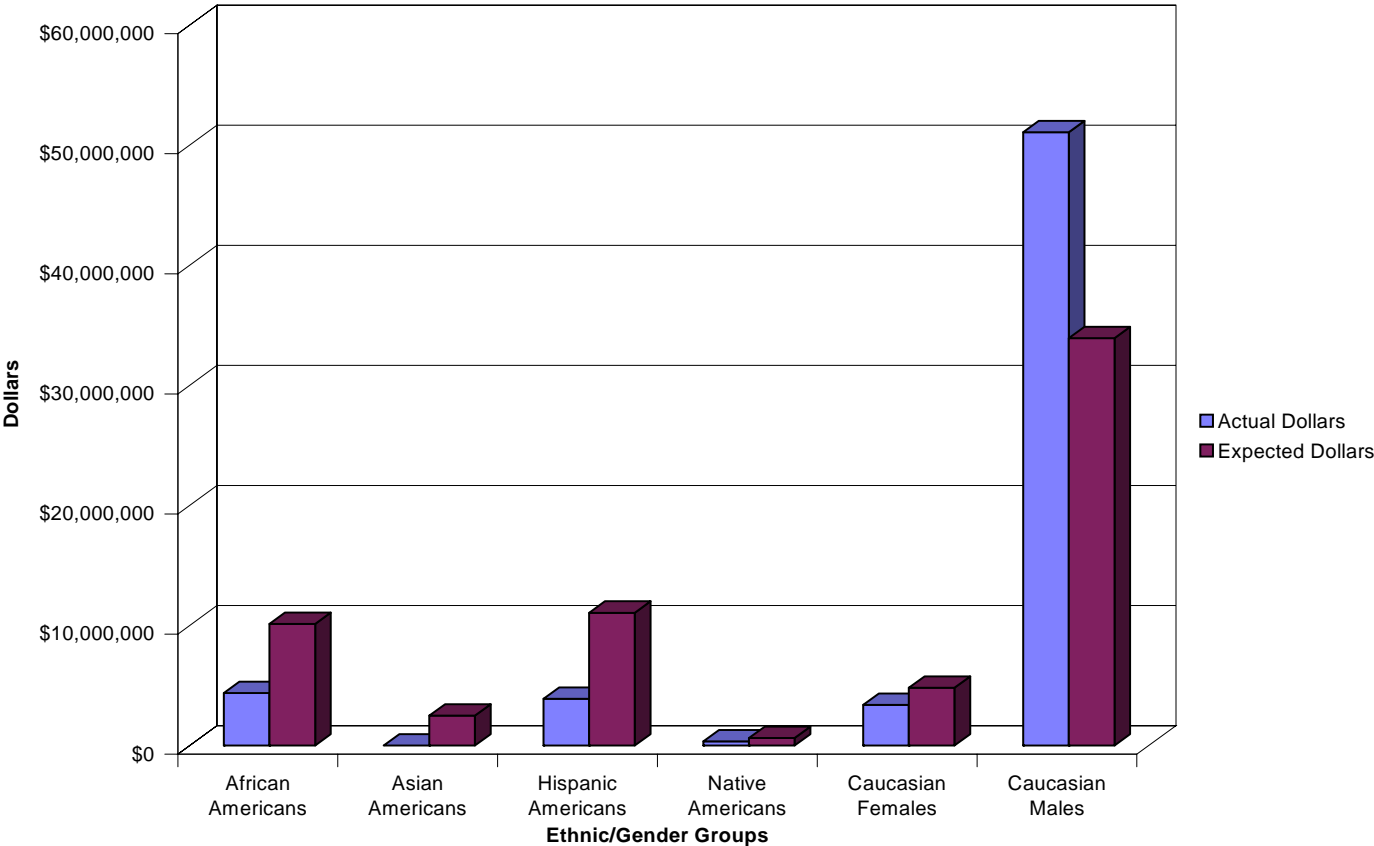


Table 7.01 Disparity Analysis: Construction Prime Contracts under \$500,000, July 1, 2003 to June 30, 2006

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8
Ethnicity	Actual Dollars	Utilization	Availability	Expected Dollars	Dollars Lost	Disp. Ratio	P-Value
African Americans	\$4,380,578	6.95%	16.06%	\$10,126,992	-\$5,746,414	0.43	< .05 *
Asian Americans	\$0	0.00%	3.96%	\$2,500,492	-\$2,500,492	0.00	< .05 *
Hispanic Americans	\$3,887,737	6.16%	17.54%	\$11,064,676	-\$7,176,939	0.35	< .05 *
Native Americans	\$356,941	0.57%	0.99%	\$625,123	-\$268,182	0.57	----
Caucasian Females	\$3,378,599	5.36%	7.63%	\$4,813,447	-\$1,434,847	0.70	not significant
Caucasian Males	\$51,071,050	80.97%	53.82%	\$33,944,176	\$17,126,874	1.50	< .05 †
TOTAL	\$63,074,905	100.00%	100.00%	\$63,074,905			
Ethnicity and Gender	Actual Dollars	Utilization	Availability	Expected Dollars	Dollars Lost	Disp. Ratio	P-Value
African American Females	\$143,971	0.23%	2.68%	\$1,687,832	-\$1,543,861	0.09	< .05 *
African American Males	\$4,236,606	6.72%	13.38%	\$8,439,160	-\$4,202,553	0.50	< .05 *
Asian American Females	\$0	0.00%	1.39%	\$875,172	-\$875,172	0.00	< .05 *
Asian American Males	\$0	0.00%	2.58%	\$1,625,320	-\$1,625,320	0.00	< .05 *
Hispanic American Females	\$1,705,020	2.70%	3.47%	\$2,187,930	-\$482,910	0.78	not significant
Hispanic American Males	\$2,182,717	3.46%	14.07%	\$8,876,746	-\$6,694,029	0.25	< .05 *
Native American Females	\$192,000	0.30%	0.30%	\$187,537	\$4,463	1.02	**
Native American Males	\$164,941	0.26%	0.69%	\$437,586	-\$272,646	0.38	----
Caucasian Females	\$3,378,599	5.36%	7.63%	\$4,813,447	-\$1,434,847	0.70	not significant
Caucasian Males	\$51,071,050	80.97%	53.82%	\$33,944,176	\$17,126,874	1.50	< .05 †
TOTAL	\$63,074,905	100.00%	100.00%	\$63,074,905			
Minority and Gender	Actual Dollars	Utilization	Availability	Expected Dollars	Dollars Lost	Disp. Ratio	P-Value
Minority Females	\$2,040,992	3.24%	7.83%	\$4,938,471	-\$2,897,480	0.41	< .05 *
Minority Males	\$6,584,264	10.44%	30.72%	\$19,378,811	-\$12,794,547	0.34	< .05 *
Caucasian Females	\$3,378,599	5.36%	7.63%	\$4,813,447	-\$1,434,847	0.70	not significant
Caucasian Males	\$51,071,050	80.97%	53.82%	\$33,944,176	\$17,126,874	1.50	< .05 †
TOTAL	\$63,074,905	100.00%	100.00%	\$63,074,905			
Minority and Females	Actual Dollars	Utilization	Availability	Expected Dollars	Dollars Lost	Disp. Ratio	P-Value
Minority Business Enterprises	\$8,625,255	13.67%	38.55%	\$24,317,282	-\$15,692,027	0.35	< .05 *
Women Business Enterprises	\$3,378,599	5.36%	7.63%	\$4,813,447	-\$1,434,847	0.70	not significant
Minority and Women Business Enterprises	\$12,003,855	19.03%	46.18%	\$29,130,729	-\$17,126,874	0.41	< .05 *
Caucasian Male Business Enterprises	\$51,071,050	80.97%	53.82%	\$33,944,176	\$17,126,874	1.50	< .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.

Chart 7.01 Disparity Analysis: Construction Prime Contracts under \$500,000, July 1, 2003 to June 30, 2006



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

The disparity analysis of all architecture and engineering prime contracts under \$500,000 is depicted in Table 7.02 and Chart 7.02.

African American Businesses represent 9.44 percent of the available architecture and engineering firms and received 13.35 percent of the architecture and engineering prime contracts under \$500,000. This study does not test statistically the overutilization of minority groups.

Asian American Businesses represent 15.41 percent of the available architecture and engineering firms and received 18.63 percent of the architecture and engineering prime contracts under \$500,000. This study does not test statistically the overutilization of minority groups.

Hispanic American Businesses represent 12.14 percent of the available architecture and engineering firms and received 19.15 percent of the architecture and engineering prime contracts under \$500,000. This study does not test statistically the overutilization of minority groups.

Native American Businesses represent 0.77 percent of the available architecture and engineering firms and received none of the architecture and engineering prime contracts under \$500,000. While this group was underutilized, there were too few available firms to determine statistical significance.

Minority Business Enterprises represent 37.76 percent of the available architecture and engineering firms and received 51.13 percent of the architecture and engineering prime contracts under \$500,000. This study does not test statistically the overutilization of minority groups.

Women Business Enterprises represent 12.14 percent of the available architecture and engineering firms and received 2.73 percent of the architecture and engineering prime contracts under \$500,000. This underutilization is statistically significant.

Minority and Women Business Enterprises represent 49.9 percent of the available architecture and engineering firms and received 53.86 percent of the architecture and engineering prime contracts under \$500,000. This study does not test statistically the overutilization of minority groups.

Caucasian Male Business Enterprises represent 50.1 percent of the available architecture and engineering firms and received 46.14 percent of the architecture and engineering prime contracts under \$500,000. This study does not test statistically the underutilization of Caucasian Male Businesses.



Table 7.02 Disparity Analysis: Architecture and Engineering Prime Contracts under \$500,000, July 1, 2003 to June 30, 2006

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8
Ethnicity	Actual Dollars	Utilization	Availability	Expected Dollars	Dollars Lost	Disp. Ratio	P-Value
African Americans	\$6,931,886	13.35%	9.44%	\$4,901,381	\$2,030,506	1.41	**
Asian Americans	\$9,669,146	18.63%	15.41%	\$8,002,254	\$1,666,892	1.21	**
Hispanic Americans	\$9,942,559	19.15%	12.14%	\$6,301,775	\$3,640,784	1.58	**
Native Americans	\$0	0.00%	0.77%	\$400,113	-\$400,113	0.00	----
Caucasian Females	\$1,417,829	2.73%	12.14%	\$6,301,775	-\$4,883,946	0.22	< .05 *
Caucasian Males	\$23,953,205	46.14%	50.10%	\$26,007,327	-\$2,054,122	0.92	**
TOTAL	\$51,914,626	100.00%	100.00%	\$51,914,626			
Ethnicity and Gender	Actual Dollars	Utilization	Availability	Expected Dollars	Dollars Lost	Disp. Ratio	P-Value
African American Females	\$763,242	1.47%	1.16%	\$600,169	\$163,073	1.27	**
African American Males	\$6,168,645	11.88%	8.29%	\$4,301,212	\$1,867,433	1.43	**
Asian American Females	\$600,936	1.16%	1.54%	\$800,225	-\$199,290	0.75	not significant
Asian American Males	\$9,068,210	17.47%	13.87%	\$7,202,029	\$1,866,181	1.26	**
Hispanic American Females	\$1,432,431	2.76%	2.50%	\$1,300,366	\$132,065	1.10	**
Hispanic American Males	\$8,510,128	16.39%	9.63%	\$5,001,409	\$3,508,719	1.70	**
Native American Females	\$0	0.00%	0.19%	\$100,028	-\$100,028	0.00	----
Native American Males	\$0	0.00%	0.58%	\$300,085	-\$300,085	0.00	----
Caucasian Females	\$1,417,829	2.73%	12.14%	\$6,301,775	-\$4,883,946	0.22	< .05 *
Caucasian Males	\$23,953,205	46.14%	50.10%	\$26,007,327	-\$2,054,122	0.92	**
TOTAL	\$51,914,626	100.00%	100.00%	\$51,914,626			
Minority and Gender	Actual Dollars	Utilization	Availability	Expected Dollars	Dollars Lost	Disp. Ratio	P-Value
Minority Females	\$2,796,608	5.39%	5.39%	\$2,800,789	-\$4,181	1.00	not significant
Minority Males	\$23,746,983	45.74%	32.37%	\$16,804,734	\$6,942,249	1.41	**
Caucasian Females	\$1,417,829	2.73%	12.14%	\$6,301,775	-\$4,883,946	0.22	< .05 *
Caucasian Males	\$23,953,205	46.14%	50.10%	\$26,007,327	-\$2,054,122	0.92	**
TOTAL	\$51,914,626	100.00%	100.00%	\$51,914,626			
Minority and Females	Actual Dollars	Utilization	Availability	Expected Dollars	Dollars Lost	Disp. Ratio	P-Value
Minority Business Enterprises	\$26,543,592	51.13%	37.76%	\$19,605,523	\$6,938,068	1.35	**
Women Business Enterprises	\$1,417,829	2.73%	12.14%	\$6,301,775	-\$4,883,946	0.22	< .05 *
Minority and Women Business Enterprises	\$27,961,421	53.86%	49.90%	\$25,907,299	\$2,054,122	1.08	**
Caucasian Male Business Enterprises	\$23,953,205	46.14%	50.10%	\$26,007,327	-\$2,054,122	0.92	**

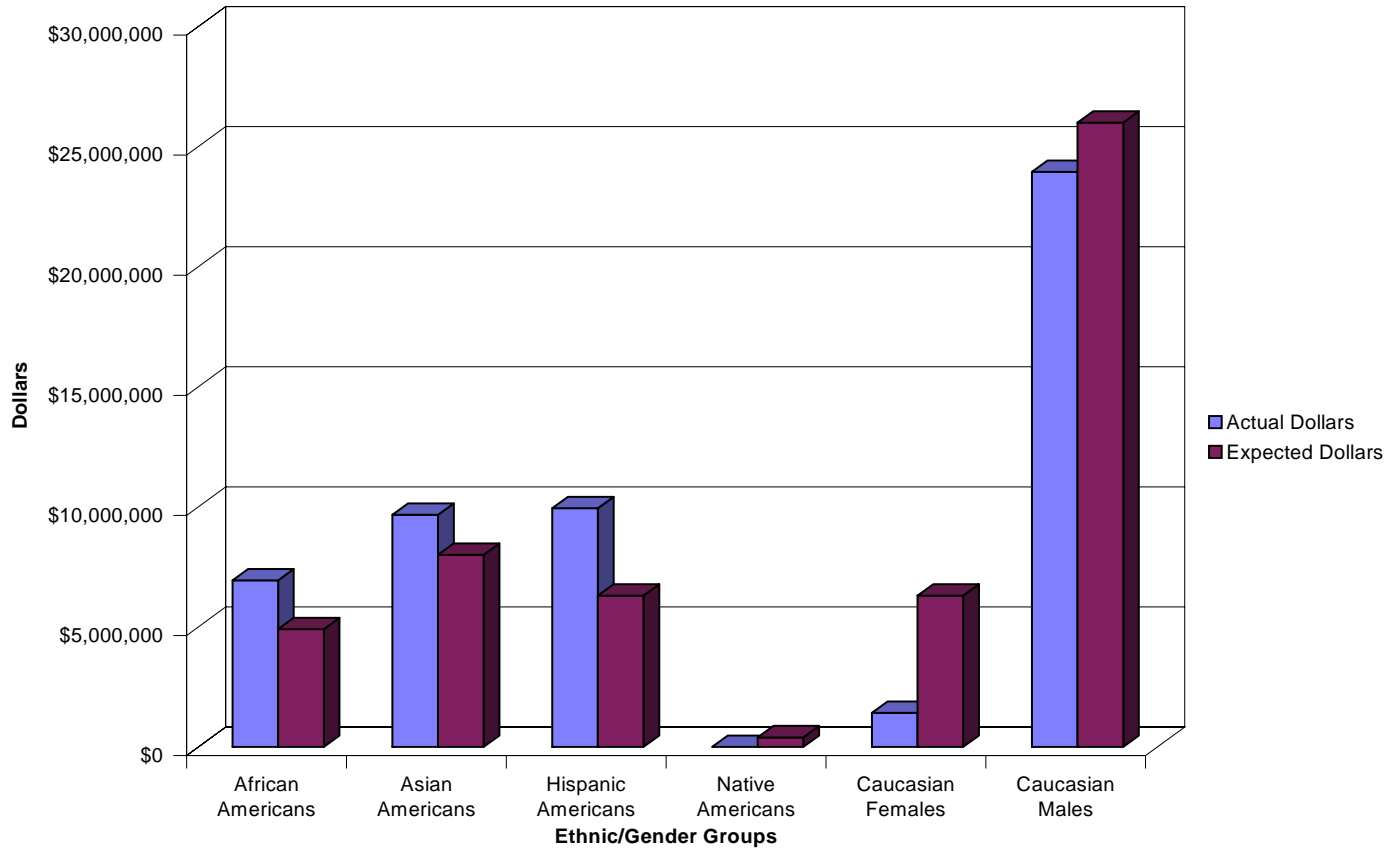
(*) denotes a statistically significant underutilization.

(†) 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.

**Chart 7.02 Disparity Analysis: Architecture and Engineering Prime Contracts under \$500,000,
July 1, 2003 to June 30, 2006**



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

The disparity analysis of all professional services prime contracts under \$500,000 is depicted in Table 7.03 and Chart 7.03.

African American Businesses represent 12.12 percent of the available professional services firms and received 4.07 percent of the professional services prime contracts under \$500,000. This underutilization is statistically significant.

Asian American Businesses represent 7 percent of the available professional services firms and received 5.59 percent of the professional services prime contracts under \$500,000. This underutilization is not statistically significant.

Hispanic American Businesses represent 6.64 percent of the available professional services firms and received 6.08 percent of the professional services prime contracts under \$500,000. This underutilization is not statistically significant.

Native American Businesses represent 0.65 percent of the available professional services firms and received 5.63 percent of the professional services prime contracts under \$500,000. This study does not test statistically the overutilization of minority groups.

Minority Business Enterprises represent 26.41 percent of the available professional services firms and received 21.38 percent of the professional services prime contracts under \$500,000. This underutilization is not statistically significant.

Women Business Enterprises represent 15.58 percent of the available professional services firms and received 3.9 percent of the professional services prime contracts under \$500,000. This underutilization is statistically significant.

Minority and Women Business Enterprises represent 41.99 percent of the available professional services firms and received 25.28 percent of the professional services prime contracts under \$500,000. This underutilization is statistically significant.

Caucasian Male Business Enterprises represent 58.01 percent of the available professional services firms and received 74.72 percent of the professional services prime contracts under \$500,000. This overutilization is statistically significant.



Table 7.03 Disparity Analysis: Professional Services Prime Contracts under \$500,000, July 1, 2003 to June 30, 2006

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8
Ethnicity	Actual Dollars	Utilization	Availability	Expected Dollars	Dollars Lost	Disp. Ratio	P-Value
African Americans	\$1,250,733	4.07%	12.12%	\$3,720,707	-\$2,469,974	0.34	< .05 *
Asian Americans	\$1,714,465	5.59%	7.00%	\$2,148,265	-\$433,800	0.80	not significant
Hispanic Americans	\$1,867,384	6.08%	6.64%	\$2,037,530	-\$170,146	0.92	not significant
Native Americans	\$1,729,258	5.63%	0.65%	\$199,324	\$1,529,935	8.68	**
Caucasian Females	\$1,196,604	3.90%	15.58%	\$4,783,766	-\$3,587,161	0.25	< .05 *
Caucasian Males	\$22,937,386	74.72%	58.01%	\$17,806,239	\$5,131,147	1.29	< .05 †
TOTAL	\$30,695,830	100.00%	100.00%	\$30,695,830			
Ethnicity and Gender	Actual Dollars	Utilization	Availability	Expected Dollars	Dollars Lost	Disp. Ratio	P-Value
African American Females	\$113,623	0.37%	4.47%	\$1,373,118	-\$1,259,495	0.08	< .05 *
African American Males	\$1,137,110	3.70%	7.65%	\$2,347,589	-\$1,210,479	0.48	< .05 *
Asian American Females	\$597,703	1.95%	2.74%	\$841,588	-\$243,886	0.71	not significant
Asian American Males	\$1,116,763	3.64%	4.26%	\$1,306,677	-\$189,914	0.85	not significant
Hispanic American Females	\$572,790	1.87%	1.59%	\$487,235	\$85,555	1.18	**
Hispanic American Males	\$1,294,593	4.22%	5.05%	\$1,550,294	-\$255,701	0.84	not significant
Native American Females	\$0	0.00%	0.22%	\$66,441	-\$66,441	0.00	----
Native American Males	\$1,729,258	5.63%	0.43%	\$132,882	\$1,596,376	13.01	**
Caucasian Females	\$1,196,604	3.90%	15.58%	\$4,783,766	-\$3,587,161	0.25	< .05 *
Caucasian Males	\$22,937,386	74.72%	58.01%	\$17,806,239	\$5,131,147	1.29	< .05 †
TOTAL	\$30,695,830	100.00%	100.00%	\$30,695,830			
Minority and Gender	Actual Dollars	Utilization	Availability	Expected Dollars	Dollars Lost	Disp. Ratio	P-Value
Minority Females	\$1,284,115	4.18%	9.02%	\$2,768,383	-\$1,484,268	0.46	< .05 *
Minority Males	\$5,277,724	17.19%	17.39%	\$5,337,442	-\$59,718	0.99	not significant
Caucasian Females	\$1,196,604	3.90%	15.58%	\$4,783,766	-\$3,587,161	0.25	< .05 *
Caucasian Males	\$22,937,386	74.72%	58.01%	\$17,806,239	\$5,131,147	1.29	< .05 †
TOTAL	\$30,695,830	100.00%	100.00%	\$30,695,830			
Minority and Females	Actual Dollars	Utilization	Availability	Expected Dollars	Dollars Lost	Disp. Ratio	P-Value
Minority Business Enterprises	\$6,561,840	21.38%	26.41%	\$8,105,825	-\$1,543,986	0.81	not significant
Women Business Enterprises	\$1,196,604	3.90%	15.58%	\$4,783,766	-\$3,587,161	0.25	< .05 *
Minority and Women Business Enterprises	\$7,758,444	25.28%	41.99%	\$12,889,591	-\$5,131,147	0.60	< .05 *
Caucasian Male Business Enterprises	\$22,937,386	74.72%	58.01%	\$17,806,239	\$5,131,147	1.29	< .05 †

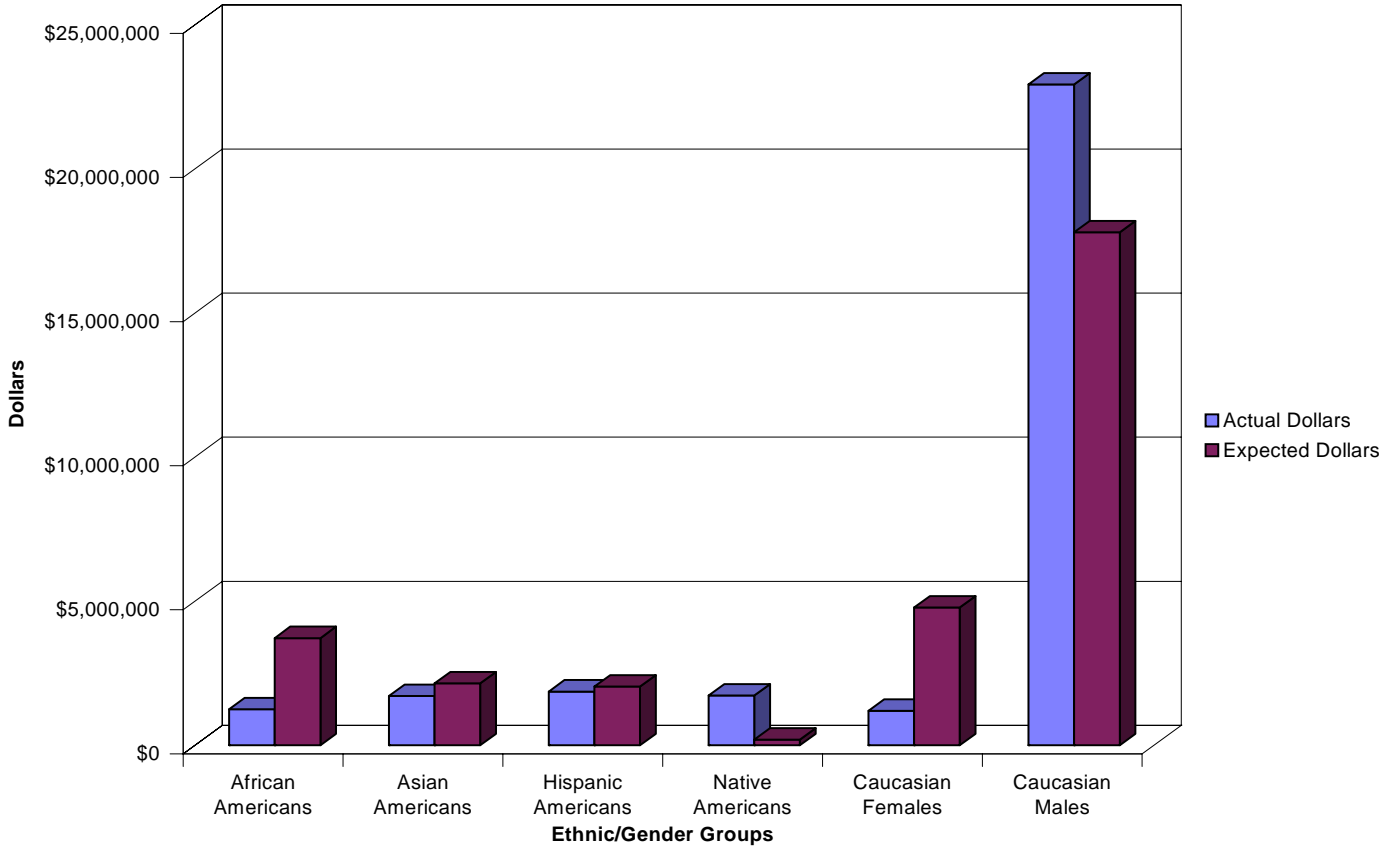
(*) denotes a statistically significant underutilization.

(†) 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.

Chart 7.03 Disparity Analysis: Professional Services Prime Contracts under \$500,000, July 1, 2003 to June 30, 2006



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4. Goods and Other Services Prime Contracts under \$500,000

The disparity analysis of all goods and other services prime contracts under \$500,000 is depicted in Table 7.04 and Chart 7.04.

African American Businesses represent 11.2 percent of the available goods and other services firms and received 2.83 percent of the goods and other services prime contracts under \$500,000. This underutilization is statistically significant.

Asian American Businesses represent 4.65 percent of the available goods and other services firms and received 0.45 percent of the goods and other services prime contracts under \$500,000. This underutilization is statistically significant.

Hispanic American Businesses represent 8.65 percent of the available goods and other services firms and received 2.91 percent of the goods and other services prime contracts under \$500,000. This underutilization is statistically significant.

Native American Businesses represent 0.54 percent of the available goods and other services firms and received none of the goods and other services prime contracts under \$500,000. While this group was underutilized, there were too few available firms to determine statistical significance.

Minority Business Enterprises represent 25.05 percent of the available goods and other services firms and received 6.19 percent of the goods and other services prime contracts under \$500,000. This underutilization is statistically significant.

Women Business Enterprises represent 11.7 percent of the available goods and other services firms and received 3.07 percent of the goods and other services prime contracts under \$500,000. This underutilization is statistically significant.

Minority and Women Business Enterprises represent 36.75 percent of the available goods and other services firms and received 9.26 percent of the goods and other services prime contracts under \$500,000. This underutilization is statistically significant.

Caucasian Male Business Enterprises represent 63.25 percent of the available goods and other services firms and received 90.74 percent of the goods and other services prime contracts under \$500,000. This overutilization is statistically significant.



Table 7.04 Disparity Analysis: Goods and Other Services Prime Contracts under \$500,000, July 1, 2003 to June 30, 2006

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8
Ethnicity	Actual Dollars	Utilization	Availability	Expected Dollars	Dollars Lost	Disp. Ratio	P-Value
African Americans	\$2,541,087	2.83%	11.20%	\$10,043,715	-\$7,502,628	0.25	< .05 *
Asian Americans	\$401,107	0.45%	4.65%	\$4,172,650	-\$3,771,543	0.10	< .05 *
Hispanic Americans	\$2,606,158	2.91%	8.65%	\$7,758,194	-\$5,152,035	0.34	< .05 *
Native Americans	\$0	0.00%	0.54%	\$482,266	-\$482,266	0.00	----
Caucasian Females	\$2,750,539	3.07%	11.70%	\$10,484,045	-\$7,733,507	0.26	< .05 *
Caucasian Males	\$81,339,697	90.74%	63.25%	\$56,697,717	\$24,641,980	1.43	< .05 †
TOTAL	\$89,638,588	100.00%	100.00%	\$89,638,588			
Ethnicity and Gender	Actual Dollars	Utilization	Availability	Expected Dollars	Dollars Lost	Disp. Ratio	P-Value
African American Females	\$51,354	0.06%	3.49%	\$3,124,246	-\$3,072,891	0.02	< .05 *
African American Males	\$2,489,733	2.78%	7.72%	\$6,919,470	-\$4,429,737	0.36	< .05 *
Asian American Females	\$252,731	0.28%	1.47%	\$1,320,990	-\$1,068,259	0.19	< .05 *
Asian American Males	\$148,376	0.17%	3.18%	\$2,851,660	-\$2,703,285	0.05	< .05 *
Hispanic American Females	\$271,979	0.30%	2.36%	\$2,117,777	-\$1,845,798	0.13	< .05 *
Hispanic American Males	\$2,334,179	2.60%	6.29%	\$5,640,416	-\$3,306,237	0.41	< .05 *
Native American Females	\$0	0.00%	0.19%	\$167,745	-\$167,745	0.00	----
Native American Males	\$0	0.00%	0.35%	\$314,521	-\$314,521	0.00	----
Caucasian Females	\$2,750,539	3.07%	11.70%	\$10,484,045	-\$7,733,507	0.26	< .05 *
Caucasian Males	\$81,339,697	90.74%	63.25%	\$56,697,717	\$24,641,980	1.43	< .05 †
TOTAL	\$89,638,588	100.00%	100.00%	\$89,638,588			
Minority and Gender	Actual Dollars	Utilization	Availability	Expected Dollars	Dollars Lost	Disp. Ratio	P-Value
Minority Females	\$576,064	0.64%	7.51%	\$6,730,757	-\$6,154,693	0.09	< .05 *
Minority Males	\$4,972,288	5.55%	17.54%	\$15,726,068	-\$10,753,780	0.32	< .05 *
Caucasian Females	\$2,750,539	3.07%	11.70%	\$10,484,045	-\$7,733,507	0.26	< .05 *
Caucasian Males	\$81,339,697	90.74%	63.25%	\$56,697,717	\$24,641,980	1.43	< .05 †
TOTAL	\$89,638,588	100.00%	100.00%	\$89,638,588			
Minority and Females	Actual Dollars	Utilization	Availability	Expected Dollars	Dollars Lost	Disp. Ratio	P-Value
Minority Business Enterprises	\$5,548,352	6.19%	25.05%	\$22,456,825	-\$16,908,473	0.25	< .05 *
Women Business Enterprises	\$2,750,539	3.07%	11.70%	\$10,484,045	-\$7,733,507	0.26	< .05 *
Minority and Women Business Enterprises	\$8,298,891	9.26%	36.75%	\$32,940,871	-\$24,641,980	0.25	< .05 *
Caucasian Male Business Enterprises	\$81,339,697	90.74%	63.25%	\$56,697,717	\$24,641,980	1.43	< .05 †

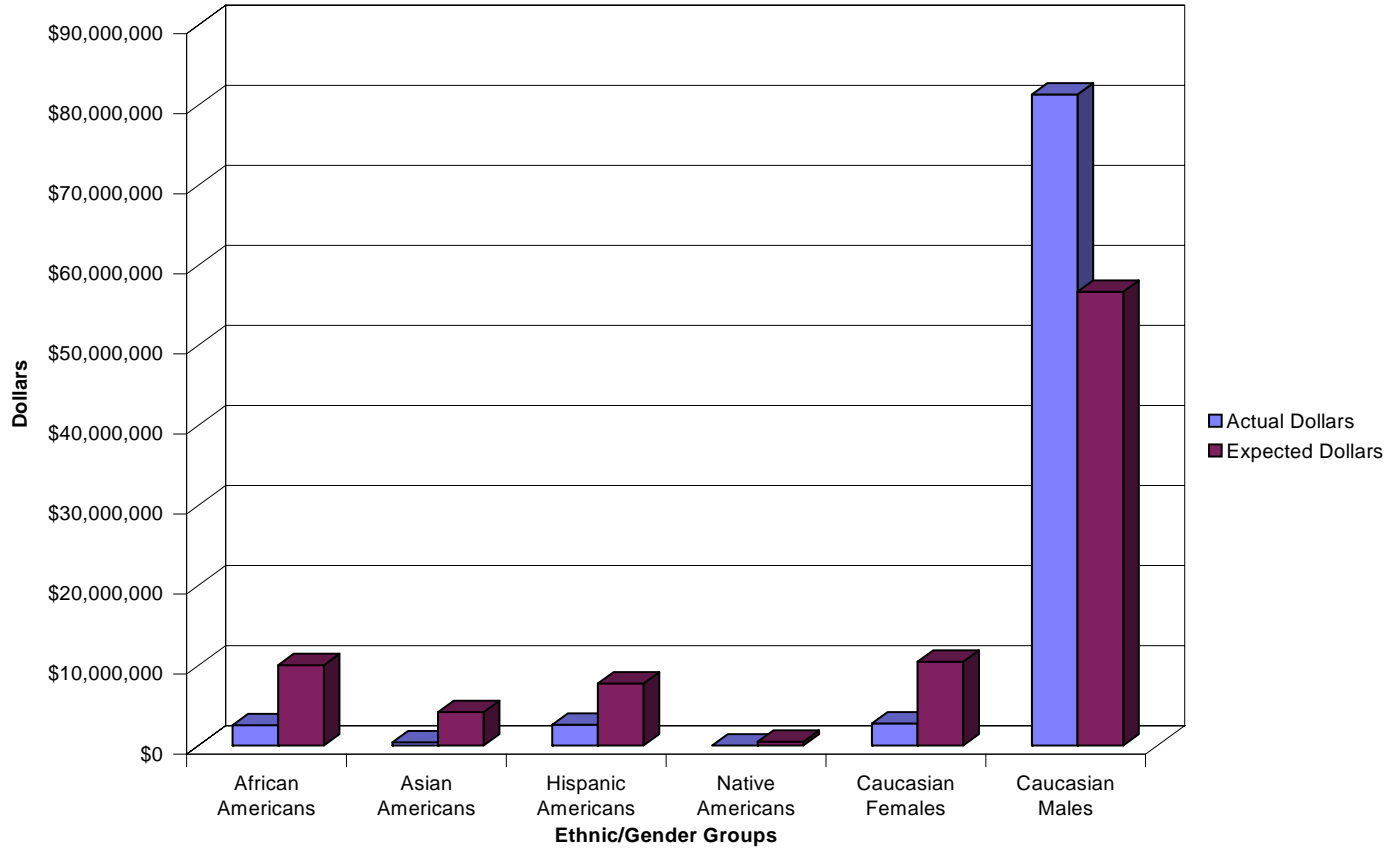
(*) denotes a statistically significant underutilization.

(†) 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.

Chart 7.04 Disparity Analysis: Goods and Other Services Prime Contracts under \$500,000, July 1, 2003 to June 30, 2006



*Mason Tillman Associates, Ltd. December 2006
City of Houston Disparity Study*

B. Disparity Analysis: All Contracts under \$50,000 and \$25,000, by Industry

1. Construction Prime Contracts under \$50,000

The disparity analysis of all construction prime contracts under \$50,000 is depicted in Table 7.05 and Chart 7.05.

African American Businesses represent 16.06 percent of the available construction firms and received 10.45 percent of the construction prime contracts under \$50,000. This underutilization is not statistically significant.

Asian American Businesses represent 3.96 percent of the available construction firms and received none of the construction prime contracts under \$50,000. This underutilization is not statistically significant.

Hispanic American Businesses represent 17.54 percent of the available construction firms and received 8.52 percent of the construction prime contracts under \$50,000. This underutilization is not statistically significant.

Native American Businesses represent 0.99 percent of the available construction firms and received 6.4 percent of the construction prime contracts under \$50,000. This study does not test statistically the overutilization of minority groups.

Minority Business Enterprises represent 38.55 percent of the available construction firms and received 25.36 percent of the construction prime contracts under \$50,000. This underutilization is not statistically significant.

Women Business Enterprises represent 7.63 percent of the available construction firms and received none of the construction prime contracts under \$50,000. This underutilization is not statistically significant.

Minority and Women Business Enterprises represent 46.18 percent of the available construction firms and received 25.36 percent of the construction prime contracts under \$50,000. This underutilization is statistically significant.

Caucasian Male Business Enterprises represent 53.82 percent of the available construction firms and received 74.64 percent of the construction prime contracts under \$50,000. This overutilization is statistically significant.



Table 7.05 Disparity Analysis: Construction Prime Contracts under \$50,000, July 1, 2003 to June 30, 2006

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8
Ethnicity	Actual Dollars	Utilization	Availability	Expected Dollars	Dollars Lost	Disp. Ratio	P-Value
African Americans	\$105,443	10.45%	16.06%	\$162,033	-\$56,589	0.65	not significant
Asian Americans	\$0	0.00%	3.96%	\$40,008	-\$40,008	0.00	not significant
Hispanic Americans	\$85,946	8.52%	17.54%	\$177,036	-\$91,090	0.49	not significant
Native Americans	\$64,585	6.40%	0.99%	\$10,002	\$54,583	6.46	**
Caucasian Females	\$0	0.00%	7.63%	\$77,016	-\$77,016	0.00	not significant
Caucasian Males	\$753,229	74.64%	53.82%	\$543,110	\$210,120	1.39	< .05 †
TOTAL	\$1,009,204	100.00%	100.00%	\$1,009,204			
Ethnicity and Gender	Actual Dollars	Utilization	Availability	Expected Dollars	Dollars Lost	Disp. Ratio	P-Value
African American Females	\$0	0.00%	2.68%	\$27,005	-\$27,005	0.00	not significant
African American Males	\$105,443	10.45%	13.38%	\$135,027	-\$29,584	0.78	not significant
Asian American Females	\$0	0.00%	1.39%	\$14,003	-\$14,003	0.00	not significant
Asian American Males	\$0	0.00%	2.58%	\$26,005	-\$26,005	0.00	not significant
Hispanic American Females	\$0	0.00%	3.47%	\$35,007	-\$35,007	0.00	not significant
Hispanic American Males	\$85,946	8.52%	14.07%	\$142,029	-\$56,083	0.61	not significant
Native American Females	\$0	0.00%	0.30%	\$3,001	-\$3,001	0.00	----
Native American Males	\$64,585	6.40%	0.69%	\$7,001	\$57,584	9.22	**
Caucasian Females	\$0	0.00%	7.63%	\$77,016	-\$77,016	0.00	not significant
Caucasian Males	\$753,229	74.64%	53.82%	\$543,110	\$210,120	1.39	< .05 †
TOTAL	\$1,009,204	100.00%	100.00%	\$1,009,204			
Minority and Gender	Actual Dollars	Utilization	Availability	Expected Dollars	Dollars Lost	Disp. Ratio	P-Value
Minority Females	\$0	0.00%	7.83%	\$79,016	-\$79,016	0.00	not significant
Minority Males	\$255,974	25.36%	30.72%	\$310,063	-\$54,088	0.83	not significant
Caucasian Females	\$0	0.00%	7.63%	\$77,016	-\$77,016	0.00	not significant
Caucasian Males	\$753,229	74.64%	53.82%	\$543,110	\$210,120	1.39	< .05 †
TOTAL	\$1,009,204	100.00%	100.00%	\$1,009,204			
Minority and Females	Actual Dollars	Utilization	Availability	Expected Dollars	Dollars Lost	Disp. Ratio	P-Value
Minority Business Enterprises	\$255,974	25.36%	38.55%	\$389,079	-\$133,104	0.66	not significant
Women Business Enterprises	\$0	0.00%	7.63%	\$77,016	-\$77,016	0.00	not significant
Minority and Women Business Enterprises	\$255,974	25.36%	46.18%	\$466,094	-\$210,120	0.55	< .05 *
Caucasian Male Business Enterprises	\$753,229	74.64%	53.82%	\$543,110	\$210,120	1.39	< .05 †

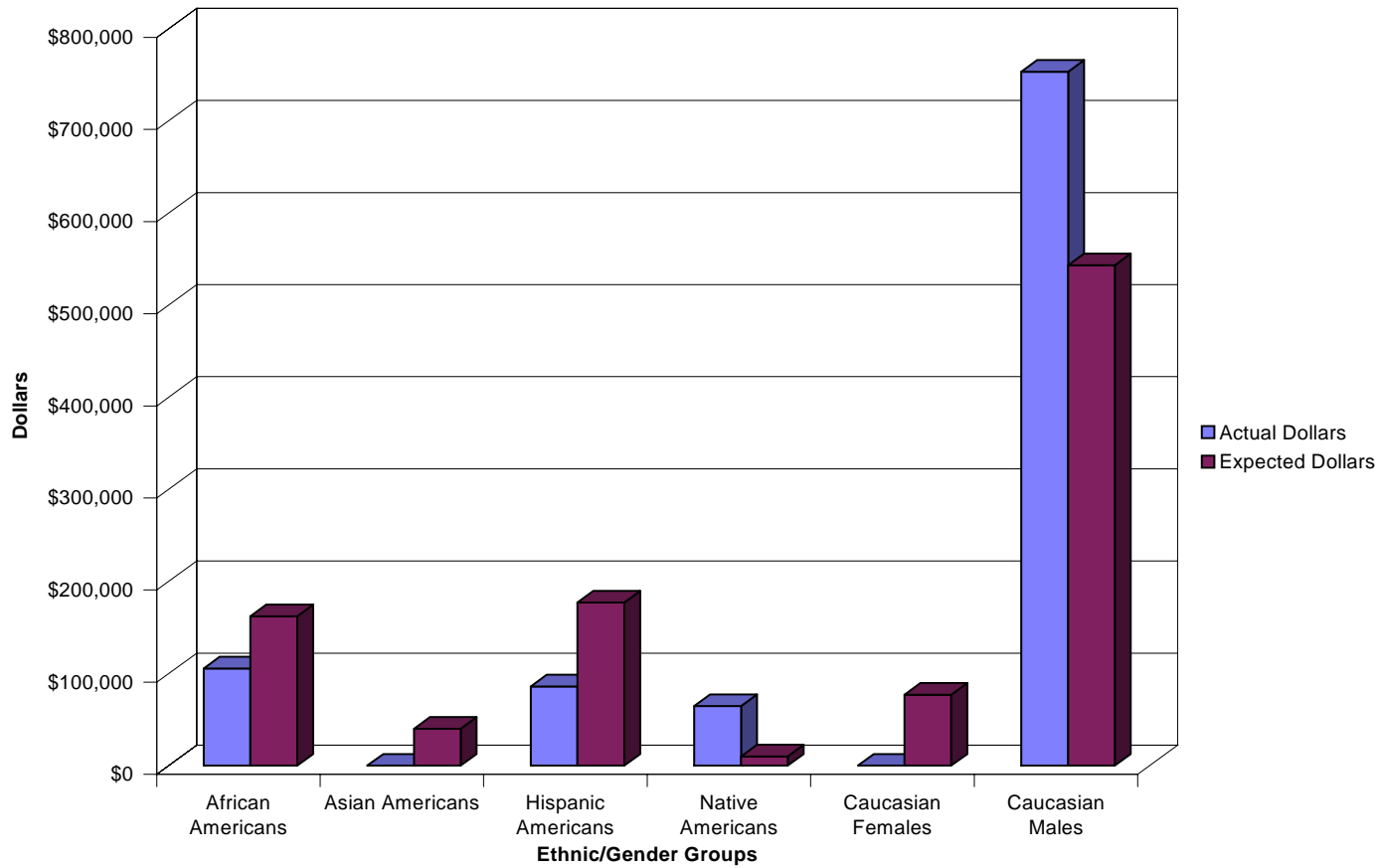
(*) denotes a statistically significant underutilization.

(†) 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.

Chart 7.05 Disparity Analysis: Construction Prime Contracts under \$50,000, July 1, 2003 to June 30, 2006



*Mason Tillman Associates, Ltd. December 2006
City of Houston Disparity Study*

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

The disparity analysis of all architecture and engineering prime contracts under \$25,000 is depicted in Table 7.06 and Chart 7.06.

African American Businesses represent 9.44 percent of the available architecture and engineering firms and received 42.68 percent of the architecture and engineering prime contracts under \$25,000. This study does not test statistically the overutilization of minority groups.

Asian American Businesses represent 15.41 percent of the available architecture and engineering firms and received 8.55 percent of the architecture and engineering prime contracts under \$25,000. This underutilization is not statistically significant.

Hispanic American Businesses represent 12.14 percent of the available architecture and engineering firms and received none of the architecture and engineering prime contracts under \$25,000. This underutilization is not statistically significant.

Native American Businesses represent 0.77 percent of the available architecture and engineering firms and received none of the architecture and engineering prime contracts under \$25,000. While this group was underutilized, there were too few available firms to determine statistical significance.

Minority Business Enterprises represent 37.76 percent of the available architecture and engineering firms and received 51.23 percent of the architecture and engineering prime contracts under \$25,000. This study does not test statistically the overutilization of minority business groups.

Women Business Enterprises represent 12.14 percent of the available architecture and engineering firms and received 2.36 percent of the architecture and engineering prime contracts under \$25,000. This underutilization is not statistically significant.

Minority and Women Business Enterprises represent 49.9 percent of the available architecture and engineering firms and received 53.59 percent of the architecture and engineering prime contracts under \$25,000. This study does not test statistically the overutilization of minority and women business groups.

Caucasian Male Business Enterprises represent 50.1 percent of the available architecture and engineering firms and received 46.41 percent of the architecture and engineering prime contracts under \$25,000. This study does not test statistically the underutilization of Caucasian Male Businesses.



**Table 7.06 Disparity Analysis: Architecture and Engineering Prime Contracts under \$25,000,
July 1, 2003 to June 30, 2006**

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8
Ethnicity	Actual Dollars	Utilization	Availability	Expected Dollars	Dollars Lost	Disp. Ratio	P-Value
African Americans	\$90,473	42.68%	9.44%	\$20,012	\$70,462	4.52	**
Asian Americans	\$18,122	8.55%	15.41%	\$32,672	-\$14,551	0.55	not significant
Hispanic Americans	\$0	0.00%	12.14%	\$25,729	-\$25,729	0.00	not significant
Native Americans	\$0	0.00%	0.77%	\$1,634	-\$1,634	0.00	----
Caucasian Females	\$5,000	2.36%	12.14%	\$25,729	-\$20,729	0.19	not significant
Caucasian Males	\$98,367	46.41%	50.10%	\$106,185	-\$7,818	0.93	**
TOTAL	\$211,962	100.00%	100.00%	\$211,962			
Ethnicity and Gender	Actual Dollars	Utilization	Availability	Expected Dollars	Dollars Lost	Disp. Ratio	P-Value
African American Females	\$48,743	23.00%	1.16%	\$2,450	\$46,292	19.89	**
African American Males	\$41,730	19.69%	8.29%	\$17,561	\$24,169	2.38	**
Asian American Females	\$0	0.00%	1.54%	\$3,267	-\$3,267	0.00	not significant
Asian American Males	\$18,122	8.55%	13.87%	\$29,405	-\$11,283	0.62	not significant
Hispanic American Females	\$0	0.00%	2.50%	\$5,309	-\$5,309	0.00	not significant
Hispanic American Males	\$0	0.00%	9.63%	\$20,420	-\$20,420	0.00	not significant
Native American Females	\$0	0.00%	0.19%	\$408	-\$408	0.00	----
Native American Males	\$0	0.00%	0.58%	\$1,225	-\$1,225	0.00	----
Caucasian Females	\$5,000	2.36%	12.14%	\$25,729	-\$20,729	0.19	not significant
Caucasian Males	\$98,367	46.41%	50.10%	\$106,185	-\$7,818	0.93	**
TOTAL	\$211,962	100.00%	100.00%	\$211,962			
Minority and Gender	Actual Dollars	Utilization	Availability	Expected Dollars	Dollars Lost	Disp. Ratio	P-Value
Minority Females	\$48,743	23.00%	5.39%	\$11,435	\$37,308	4.26	**
Minority Males	\$59,852	28.24%	32.37%	\$68,612	-\$8,760	0.87	not significant
Caucasian Females	\$5,000	2.36%	12.14%	\$25,729	-\$20,729	0.19	not significant
Caucasian Males	\$98,367	46.41%	50.10%	\$106,185	-\$7,818	0.93	**
TOTAL	\$211,962	100.00%	100.00%	\$211,962			
Minority and Females	Actual Dollars	Utilization	Availability	Expected Dollars	Dollars Lost	Disp. Ratio	P-Value
Minority Business Enterprises	\$108,595	51.23%	37.76%	\$80,047	\$28,548	1.36	**
Women Business Enterprises	\$5,000	2.36%	12.14%	\$25,729	-\$20,729	0.19	not significant
Minority and Women Business Enterprises	\$113,595	53.59%	49.90%	\$105,777	\$7,818	1.07	**
Caucasian Male Business Enterprises	\$98,367	46.41%	50.10%	\$106,185	-\$7,818	0.93	**

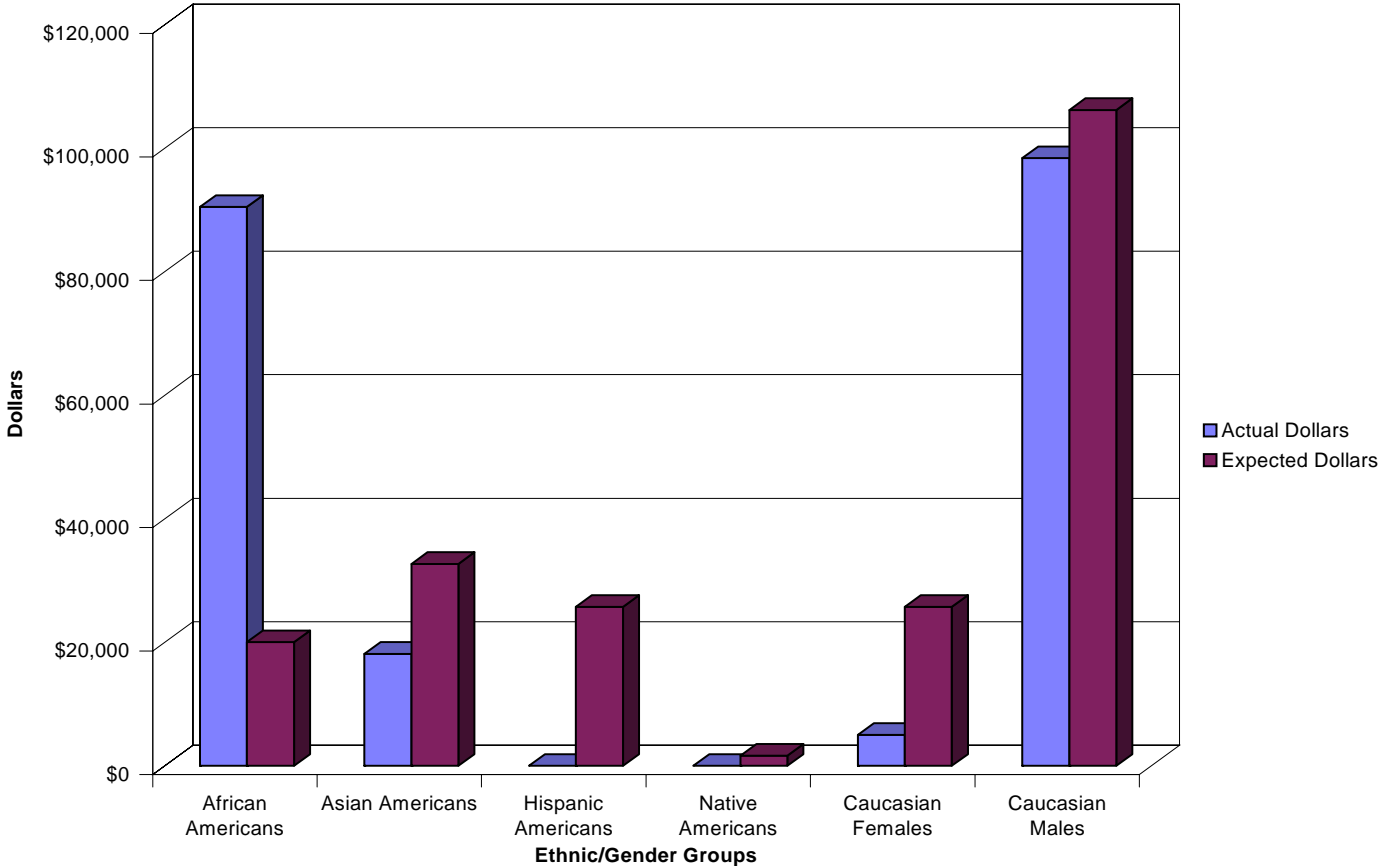
(*) denotes a statistically significant underutilization.

(†) 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.

**Chart 7.06 Disparity Analysis: Architecture and Engineering Prime Contracts under \$25,000,
July 1, 2003 to June 30, 2006**



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3. Professional Services Prime Contracts under \$25,000

The disparity analysis of all professional services prime contracts under \$25,000 is depicted in Table 7.07 and Chart 7.07.

African American Businesses represent 12.12 percent of the available professional services firms and received 3.79 percent of the professional services prime contracts under \$25,000. This underutilization is statistically significant.

Asian American Businesses represent 7 percent of the available professional services firms and received 4.4 percent of the professional services prime contracts under \$25,000. This underutilization is not statistically significant.

Hispanic American Businesses represent 6.64 percent of the available professional services firms and received 10.63 percent of the professional services prime contracts under \$25,000. This study does not test statistically the overutilization of minority groups.

Native American Businesses represent 0.65 percent of the available professional services firms and received none of the professional services prime contracts under \$25,000. While this group was underutilized, there were too few available firms to determine statistical significance.

Minority Business Enterprises represent 26.41 percent of the available professional services firms and received 18.82 percent of the professional services prime contracts under \$25,000. This underutilization is not statistically significant.

Women Business Enterprises represent 15.58 percent of the available professional services firms and received 11.97 percent of the professional services prime contracts under \$25,000. This underutilization is not statistically significant.

Minority and Women Business Enterprises represent 41.99 percent of the available professional services firms and received 30.78 percent of the professional services prime contracts under \$25,000. This underutilization is not statistically significant.

Caucasian Male Business Enterprises represent 58.01 percent of the available professional services firms and received 69.22 percent of the professional services prime contracts under \$25,000. This overutilization is not statistically significant.



Table 7.07 Disparity Analysis: Professional Services Prime Contracts under \$25,000, July 1, 2003 to June 30, 2006

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8
Ethnicity	Actual Dollars	Utilization	Availability	Expected Dollars	Dollars Lost	Disp. Ratio	P-Value
African Americans	\$33,373	3.79%	12.12%	\$106,705	-\$73,332	0.31	< .05 *
Asian Americans	\$38,703	4.40%	7.00%	\$61,609	-\$22,907	0.63	not significant
Hispanic Americans	\$93,557	10.63%	6.64%	\$58,433	\$35,123	1.60	**
Native Americans	\$0	0.00%	0.65%	\$5,716	-\$5,716	0.00	----
Caucasian Females	\$105,352	11.97%	15.58%	\$137,192	-\$31,840	0.77	not significant
Caucasian Males	\$609,330	69.22%	58.01%	\$510,658	\$98,672	1.19	not significant
TOTAL	\$880,313	100.00%	100.00%	\$880,313			
Ethnicity and Gender	Actual Dollars	Utilization	Availability	Expected Dollars	Dollars Lost	Disp. Ratio	P-Value
African American Females	\$3,623	0.41%	4.47%	\$39,379	-\$35,756	0.09	not significant
African American Males	\$29,750	3.38%	7.65%	\$67,326	-\$37,576	0.44	not significant
Asian American Females	\$38,703	4.40%	2.74%	\$24,136	\$14,567	1.60	**
Asian American Males	\$0	0.00%	4.26%	\$37,474	-\$37,474	0.00	not significant
Hispanic American Females	\$49,192	5.59%	1.59%	\$13,973	\$35,219	3.52	**
Hispanic American Males	\$44,365	5.04%	5.05%	\$44,460	-\$96	1.00	not significant
Native American Females	\$0	0.00%	0.22%	\$1,905	-\$1,905	0.00	----
Native American Males	\$0	0.00%	0.43%	\$3,811	-\$3,811	0.00	----
Caucasian Females	\$105,352	11.97%	15.58%	\$137,192	-\$31,840	0.77	not significant
Caucasian Males	\$609,330	69.22%	58.01%	\$510,658	\$98,672	1.19	not significant
TOTAL	\$880,313	100.00%	100.00%	\$880,313			
Minority and Gender	Actual Dollars	Utilization	Availability	Expected Dollars	Dollars Lost	Disp. Ratio	P-Value
Minority Females	\$91,517	10.40%	9.02%	\$79,393	\$12,124	1.15	**
Minority Males	\$74,115	8.42%	17.39%	\$153,070	-\$78,956	0.48	not significant
Caucasian Females	\$105,352	11.97%	15.58%	\$137,192	-\$31,840	0.77	not significant
Caucasian Males	\$609,330	69.22%	58.01%	\$510,658	\$98,672	1.19	not significant
TOTAL	\$880,313	100.00%	100.00%	\$880,313			
Minority and Females	Actual Dollars	Utilization	Availability	Expected Dollars	Dollars Lost	Disp. Ratio	P-Value
Minority Business Enterprises	\$165,632	18.82%	26.41%	\$232,464	-\$66,832	0.71	not significant
Women Business Enterprises	\$105,352	11.97%	15.58%	\$137,192	-\$31,840	0.77	not significant
Minority and Women Business Enterprises	\$270,983	30.78%	41.99%	\$369,655	-\$98,672	0.73	not significant
Caucasian Male Business Enterprises	\$609,330	69.22%	58.01%	\$510,658	\$98,672	1.19	not significant

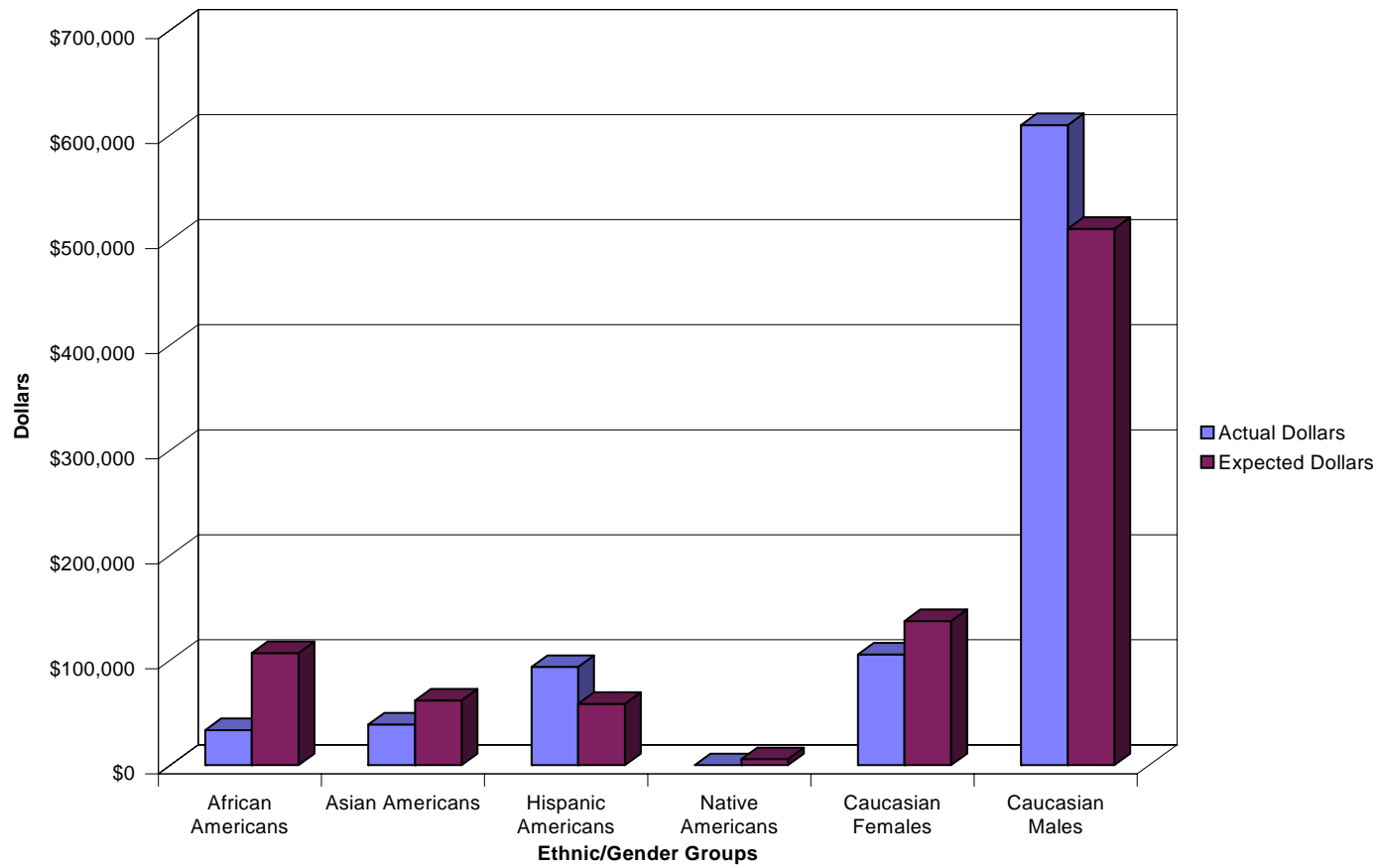
(*) denotes a statistically significant underutilization.

(†) 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.

Chart 7.07 Disparity Analysis: Professional Services Prime Contracts under \$25,000, July 1, 2003 to June 30, 2006



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4. Goods and Other Services Prime Contracts under \$25,000

The disparity analysis of all goods and other services prime contracts under \$25,000 is depicted in Table 7.08 and Chart 7.08.

African American Businesses represent 11.2 percent of the available goods and other services firms and received 3.24 percent of the goods and other services prime contracts under \$25,000. This underutilization is statistically significant.

Asian American Businesses represent 4.65 percent of the available goods and other services firms and received 0.29 percent of the goods and other services prime contracts under \$25,000. This underutilization is statistically significant.

Hispanic American Businesses represent 8.65 percent of the available goods and other services firms and received 1.89 percent of the goods and other services prime contracts under \$25,000. This underutilization is statistically significant.

Native American Businesses represent 0.54 percent of the available goods and other services firms and received none of the goods and other services prime contracts under \$25,000. While this group was underutilized, there were too few available firms to determine statistical significance.

Minority Business Enterprises represent 25.05 percent of the available goods and other services firms and received 5.42 percent of the goods and other services prime contracts under \$25,000. This underutilization is statistically significant.

Women Business Enterprises represent 11.7 percent of the available goods and other services firms and received 5.75 percent of the goods and other services prime contracts under \$25,000. This underutilization is statistically significant.

Minority and Women Business Enterprises represent 36.75 percent of the available goods and other services firms and received 11.17 percent of the goods and other services prime contracts under \$25,000. This underutilization is statistically significant.

Caucasian Male Business Enterprises represent 63.25 percent of the available goods and other services firms and received 88.83 percent of the goods and other services prime contracts under \$25,000. This overutilization is statistically significant.



Table 7.08 Disparity Analysis: Goods and Other Services Prime Contracts under \$25,000, July 1, 2003 to June 30, 2006

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8
Ethnicity	Actual Dollars	Utilization	Availability	Expected Dollars	Dollars Lost	Disp. Ratio	P-Value
African Americans	\$43,918	3.24%	11.20%	\$152,096	-\$108,178	0.29	< .05 *
Asian Americans	\$3,986	0.29%	4.65%	\$63,188	-\$59,202	0.06	< .05 *
Hispanic Americans	\$25,657	1.89%	8.65%	\$117,486	-\$91,828	0.22	< .05 *
Native Americans	\$0	0.00%	0.54%	\$7,303	-\$7,303	0.00	----
Caucasian Females	\$78,014	5.75%	11.70%	\$158,764	-\$80,750	0.49	< .05 *
Caucasian Males	\$1,205,859	88.83%	63.25%	\$858,597	\$347,262	1.40	< .05 †
TOTAL	\$1,357,434	100.00%	100.00%	\$1,357,434			
Ethnicity and Gender	Actual Dollars	Utilization	Availability	Expected Dollars	Dollars Lost	Disp. Ratio	P-Value
African American Females	\$13,799	1.02%	3.49%	\$47,312	-\$33,513	0.29	not significant
African American Males	\$30,119	2.22%	7.72%	\$104,784	-\$74,665	0.29	< .05 *
Asian American Females	\$0	0.00%	1.47%	\$20,004	-\$20,004	0.00	not significant
Asian American Males	\$3,986	0.29%	3.18%	\$43,184	-\$39,198	0.09	< .05 *
Hispanic American Females	\$0	0.00%	2.36%	\$32,070	-\$32,070	0.00	< .05 *
Hispanic American Males	\$25,657	1.89%	6.29%	\$85,415	-\$59,758	0.30	< .05 *
Native American Females	\$0	0.00%	0.19%	\$2,540	-\$2,540	0.00	----
Native American Males	\$0	0.00%	0.35%	\$4,763	-\$4,763	0.00	----
Caucasian Females	\$78,014	5.75%	11.70%	\$158,764	-\$80,750	0.49	< .05 *
Caucasian Males	\$1,205,859	88.83%	63.25%	\$858,597	\$347,262	1.40	< .05 †
TOTAL	\$1,357,434	100.00%	100.00%	\$1,357,434			
Minority and Gender	Actual Dollars	Utilization	Availability	Expected Dollars	Dollars Lost	Disp. Ratio	P-Value
Minority Females	\$13,799	1.02%	7.51%	\$101,927	-\$88,128	0.14	< .05 *
Minority Males	\$59,763	4.40%	17.54%	\$238,146	-\$178,384	0.25	< .05 *
Caucasian Females	\$78,014	5.75%	11.70%	\$158,764	-\$80,750	0.49	< .05 *
Caucasian Males	\$1,205,859	88.83%	63.25%	\$858,597	\$347,262	1.40	< .05 †
TOTAL	\$1,357,434	100.00%	100.00%	\$1,357,434			
Minority and Females	Actual Dollars	Utilization	Availability	Expected Dollars	Dollars Lost	Disp. Ratio	P-Value
Minority Business Enterprises	\$73,562	5.42%	25.05%	\$340,073	-\$266,511	0.22	< .05 *
Women Business Enterprises	\$78,014	5.75%	11.70%	\$158,764	-\$80,750	0.49	< .05 *
Minority and Women Business Enterprises	\$151,575	11.17%	36.75%	\$498,837	-\$347,262	0.30	< .05 *
Caucasian Male Business Enterprises	\$1,205,859	88.83%	63.25%	\$858,597	\$347,262	1.40	< .05 †

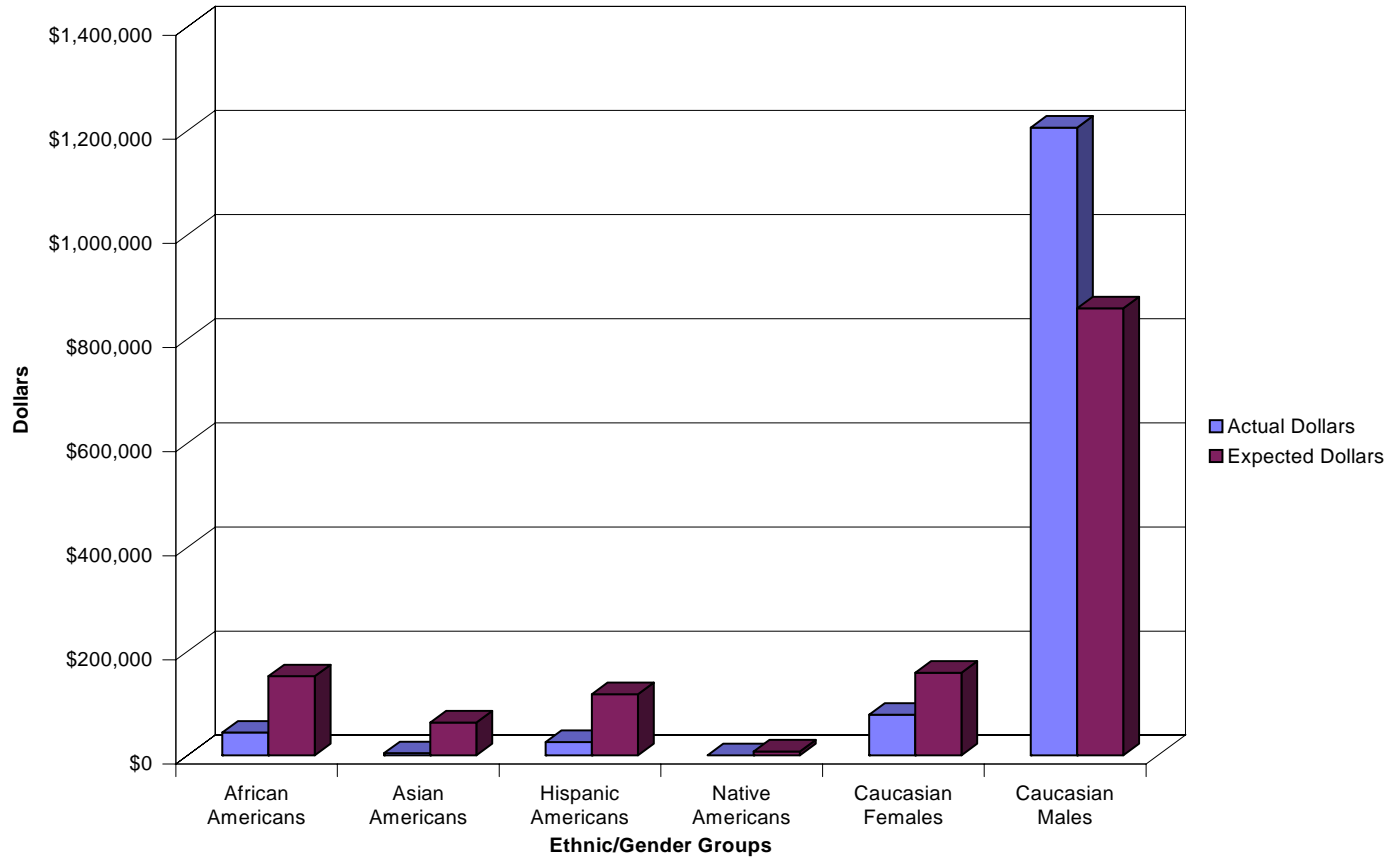
(*) denotes a statistically significant underutilization.

(†) 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.

Chart 7.08 Disparity Analysis: Goods and Other Services Prime Contracts under \$25,000, July 1, 2003 to June 30, 2006



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III. SUMMARY

A. Construction Prime Contracts

As indicated in Table 7.09, African American, Asian American, and Hispanic American construction prime contractors were underutilized at the \$500,000 and under contract level.

Table 7.09 Disparity Summary: Construction Prime Contract Dollars, July 1, 2003 to June 30, 2006

Ethnicity/Gender	Construction	
	Contracts under \$500,000	Contracts \$50,000 and under
African Americans	Yes	No
Asian Americans	Yes	No
Hispanic Americans	Yes	No
Native Americans	---	**
Minority Business Enterprises	Yes	No
Women Business Enterprises	No	No
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
- ** = The study did not test statistically the overutilization of M/WBEs



B. Architecture and Engineering Prime Contracts

As indicated in Table 7.10, Women Business Enterprise architecture and engineering prime contractors were determined to be underutilized at the \$500,000 and under contract level.

Table 7.10 Disparity Summary: Architecture and Engineering Contract Dollars, July 1, 2003 to June 30, 2006

Ethnicity/Gender	Architecture and Engineering	
	Contracts under \$500,000	Contracts \$25,000 and under
African Americans	**	**
Asian Americans	**	No
Hispanic Americans	**	No
Native Americans	---	---
Minority Business Enterprises	**	**
Women Business Enterprises	Yes	No
Minority and Women Business Enterprises	**	**

- Yes = Statistically significant disparity was found
- No = Statistically significant disparity was not found
- = There were insufficient records to determine statistical disparity
- ** = The study did not test statistically the overutilization of M/WBEs



C. Professional Services Prime Contracts

As indicated in Table 7.11, African American professional services prime contractors were underutilized at both contract levels. Women Business Enterprises were underutilized at the \$500,000 and under contract level.

Table 7.11 Disparity Summary: Professional Services Prime Contract Dollars, July 1, 2003 to June 30, 2006

Ethnicity/Gender	Professional Services	
	Contracts under \$500,000	Contracts \$25,000 and under
African Americans	Yes	Yes
Asian Americans	No	No
Hispanic Americans	No	**
Native Americans	**	---
Minority Business Enterprises	No	No
Women Business Enterprises	Yes	No
Minority and Women Business Enterprises	Yes	No

Yes = Statistically significant disparity was found
 No = Statistically significant disparity was not found
 --- = There were insufficient records to determine statistical disparity
 ** = The study did not test statistically the overutilization of M/WBEs



D. Goods and Other Services Prime Contracts

As indicated in Table 7.12, African American, Asian American, and Hispanic American Firms goods and other services prime contractors were determined to be underutilized at both contracts levels. Women Business Enterprises were also underutilized at both contract levels.

**Table 7.12 Disparity Summary: Goods and Other Services
Prime Contract Dollars, July 1, 2003 to June 30, 2006**

Ethnicity/Gender	Goods and Other 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
- ** = The study did not test statistically the overutilization of M/WBEs





8

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 7: 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, *Croscon* states that an inference of discrimination can be made.¹

II. DISPARITY ANALYSIS

As detailed in *Chapter 4: Subcontractor Utilization Analysis*, extensive efforts were undertaken to obtain subcontracting records for the City's construction, architecture and engineering, and professional services prime contracts. The City could provide sufficient information on construction and architecture and engineering subcontracts. The professional services and goods and other services industries were not available and therefore not included in the subcontractor analysis. Subcontract records were compiled for

¹ 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.



the two industries within the July 1, 2003 to June 30, 2006 study period. A subcontractor disparity analysis of these records was performed.

A. Construction Subcontractor Disparity Analysis: July 1, 2003 to June 30, 2006

The disparity analysis of construction subcontract dollars is depicted in Table 8.01 and Chart 8.01.

African American Businesses represent 14.09 percent of the available construction firms and received 7.31 percent of the construction subcontract dollars. This underutilization is statistically significant.

Asian American Businesses represent 4.37 percent of the available construction firms and received 2.73 percent of the construction subcontract dollars. This underutilization is not statistically significant.

Hispanic American Businesses represent 16.68 percent of the available construction firms and received 13.04 percent of the construction subcontract dollars. This underutilization is not statistically significant.

Native American Businesses represent 0.89 percent of the available construction firms and received 0.49 percent of the construction subcontract dollars. While this group was underutilized, there were too few available firms to determine statistical significance.

Minority Business Enterprises represent 36.03 percent of the available construction firms and received 23.56 percent of the construction subcontract dollars. This underutilization is statistically significant.

Women Business Enterprises represent 7.21 percent of the available construction firms and received 7.47 percent of the construction subcontract dollars. This study does not test statistically the overutilization of women business groups.

Minority and Women Business Enterprises represent 43.24 percent of the available construction firms and received 31.03 percent of the construction subcontract dollars. This underutilization is statistically significant.

Caucasian Male Business Enterprises represent 56.76 percent of the available construction firms and received 68.97 percent of the construction subcontract dollars. This overutilization is statistically significant.



Table 8.01 Disparity Analysis: Construction Subcontracts, July 1, 2003 to June 30, 2006

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8
Ethnicity	Actual Dollars	Utilization	Availability	Expected Dollars	Dollars Lost	Disp. Ratio	P-Value
African Americans	\$5,085,409	7.31%	14.09%	\$9,807,797	-\$4,722,388	0.52	< .05 *
Asian Americans	\$1,900,760	2.73%	4.37%	\$3,043,799	-\$1,143,039	0.62	not significant
Hispanic Americans	\$9,078,353	13.04%	16.68%	\$11,611,530	-\$2,533,177	0.78	not significant
Native Americans	\$339,401	0.49%	0.89%	\$620,033	-\$280,632	0.55	----
Caucasian Females	\$5,199,052	7.47%	7.21%	\$5,016,632	\$182,420	1.04	**
Caucasian Males	\$48,009,837	68.97%	56.76%	\$39,513,021	\$8,496,816	1.22	< .05 †
TOTAL	\$69,612,811	100.00%	100.00%	\$69,612,811			
Ethnicity and Gender	Actual Dollars	Utilization	Availability	Expected Dollars	Dollars Lost	Disp. Ratio	P-Value
African American Females	\$0	0.00%	2.27%	\$1,578,266	-\$1,578,266	0.00	< .05 *
African American Males	\$5,085,409	7.31%	11.82%	\$8,229,531	-\$3,144,122	0.62	< .05 *
Asian American Females	\$246,802	0.35%	1.38%	\$958,233	-\$711,431	0.26	< .05 *
Asian American Males	\$1,653,958	2.38%	3.00%	\$2,085,566	-\$431,608	0.79	not significant
Hispanic American Females	\$2,266,236	3.26%	3.24%	\$2,254,666	\$11,570	1.01	**
Hispanic American Males	\$6,812,117	9.79%	13.44%	\$9,356,864	-\$2,544,746	0.73	< .05 *
Native American Females	\$0	0.00%	0.32%	\$225,467	-\$225,467	0.00	----
Native American Males	\$339,401	0.49%	0.57%	\$394,567	-\$55,166	0.86	----
Caucasian Females	\$5,199,052	7.47%	7.21%	\$5,016,632	\$182,420	1.04	**
Caucasian Males	\$48,009,837	68.97%	56.76%	\$39,513,021	\$8,496,816	1.22	< .05 †
TOTAL	\$69,612,811	100.00%	100.00%	\$69,612,811			
Minority and Gender	Actual Dollars	Utilization	Availability	Expected Dollars	Dollars Lost	Disp. Ratio	P-Value
Minority Females	\$2,513,038	3.61%	7.21%	\$5,016,632	-\$2,503,594	0.50	< .05 *
Minority Males	\$13,890,885	19.95%	28.83%	\$20,066,527	-\$6,175,642	0.69	< .05 *
Caucasian Females	\$5,199,052	7.47%	7.21%	\$5,016,632	\$182,420	1.04	**
Caucasian Males	\$48,009,837	68.97%	56.76%	\$39,513,021	\$8,496,816	1.22	< .05 †
TOTAL	\$69,612,811	100.00%	100.00%	\$69,612,811			
Minority and Females	Actual Dollars	Utilization	Availability	Expected Dollars	Dollars Lost	Disp. Ratio	P-Value
Minority Business Enterprises	\$16,403,923	23.56%	36.03%	\$25,083,159	-\$8,679,236	0.65	< .05 *
Women Business Enterprises	\$5,199,052	7.47%	7.21%	\$5,016,632	\$182,420	1.04	**
Minority and Women Business Enterprises	\$21,602,975	31.03%	43.24%	\$30,099,790	-\$8,496,816	0.72	< .05 *
Caucasian Male Business Enterprises	\$48,009,837	68.97%	56.76%	\$39,513,021	\$8,496,816	1.22	< .05 †

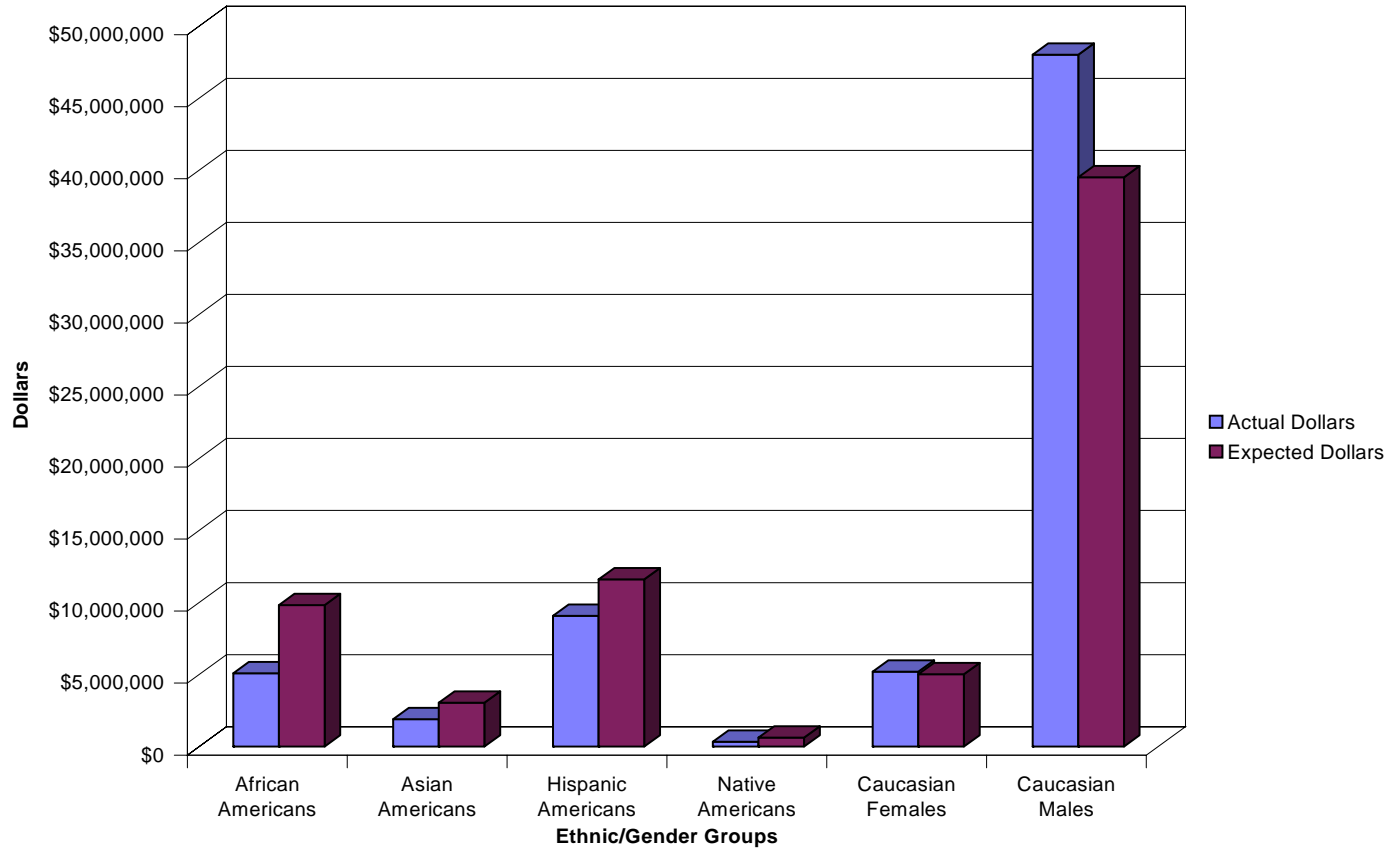
(*) denotes a statistically significant underutilization.

(†) 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.

Chart 8.01 Disparity Analysis: Construction Subcontracts, July 1, 2003 to June 30, 2006



*Mason Tillman Associates, Ltd. December 2006
City of Houston Disparity Study*

**B. Architecture and Engineering
Subcontractor Analysis: July 1, 2003 to
June 30, 2006**

The disparity analysis of architecture and engineering subcontract dollars is depicted in Table 8.02 and Chart 8.02.

African American Businesses represent 9.83 percent of the available architecture and engineering firms and received 5.99 percent of the architecture and engineering subcontract dollars. This underutilization is not statistically significant.

Asian American Businesses represent 15.03 percent of the available architecture and engineering firms and received 14.69 percent of the architecture and engineering subcontract dollars. This underutilization is not statistically significant.

Hispanic American Businesses represent 12.62 percent of the available architecture and engineering firms and received 3.58 percent of the architecture and engineering subcontract dollars. This underutilization is not statistically significant.

Native American Businesses represent 1.11 percent of the available architecture and engineering firms and received 5.97 percent of the architecture and engineering subcontract dollars. This study does not test statistically the overutilization of minority groups.

Minority Business Enterprises represent 38.59 percent of the available architecture and engineering firms and received 30.22 percent of the architecture and engineering subcontract dollars. This underutilization is statistically significant.

Women Business Enterprises represent 12.06 percent of the available architecture and engineering firms and received 9.32 percent of the architecture and engineering subcontract dollars. This underutilization is not statistically significant.

Minority and Women Business Enterprises represent 50.65 percent of the available architecture and engineering firms and received 39.55 percent of the architecture and engineering subcontract dollars. This underutilization is statistically significant.

Caucasian Male Business Enterprises represent 49.35 percent of the available architecture and engineering firms and received 60.45 percent of the architecture and engineering subcontract dollars. This overutilization is not statistically significant.



Table 8.02 Disparity Analysis: Architecture and Engineering Subcontracts, July 1, 2003 to June 30, 2006

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8
Ethnicity	Actual Dollars	Utilization	Availability	Expected Dollars	Dollars Lost	Disp. Ratio	P-Value
African Americans	\$167,908	5.99%	9.83%	\$275,693	-\$107,785	0.61	not significant
Asian Americans	\$411,848	14.69%	15.03%	\$421,343	-\$9,495	0.98	not significant
Hispanic Americans	\$100,309	3.58%	12.62%	\$353,720	-\$253,410	0.28	not significant
Native Americans	\$167,301	5.97%	1.11%	\$31,211	\$136,090	5.36	**
Caucasian Females	\$261,400	9.32%	12.06%	\$338,114	-\$76,714	0.77	not significant
Caucasian Males	\$1,694,982	60.45%	49.35%	\$1,383,668	\$311,314	1.22	not significant
TOTAL	\$2,803,748	100.00%	100.00%	\$2,803,748			
Ethnicity and Gender	Actual Dollars	Utilization	Availability	Expected Dollars	Dollars Lost	Disp. Ratio	P-Value
African American Females	\$0	0.00%	1.30%	\$36,412	-\$36,412	0.00	not significant
African American Males	\$167,908	5.99%	8.53%	\$239,281	-\$71,373	0.70	not significant
Asian American Females	\$0	0.00%	1.48%	\$41,614	-\$41,614	0.00	not significant
Asian American Males	\$411,848	14.69%	13.54%	\$379,728	\$32,119	1.08	**
Hispanic American Females	\$0	0.00%	2.78%	\$78,026	-\$78,026	0.00	not significant
Hispanic American Males	\$100,309	3.58%	9.83%	\$275,693	-\$175,384	0.36	not significant
Native American Females	\$0	0.00%	0.37%	\$10,404	-\$10,404	0.00	----
Native American Males	\$167,301	5.97%	0.74%	\$20,807	\$146,494	8.04	**
Caucasian Females	\$261,400	9.32%	12.06%	\$338,114	-\$76,714	0.77	not significant
Caucasian Males	\$1,694,982	60.45%	49.35%	\$1,383,668	\$311,314	1.22	not significant
TOTAL	\$2,803,748	100.00%	100.00%	\$2,803,748			
Minority and Gender	Actual Dollars	Utilization	Availability	Expected Dollars	Dollars Lost	Disp. Ratio	P-Value
Minority Females	\$0	0.00%	5.94%	\$166,456	-\$166,456	0.00	< .05 *
Minority Males	\$847,366	30.22%	32.65%	\$915,510	-\$68,144	0.93	not significant
Caucasian Females	\$261,400	9.32%	12.06%	\$338,114	-\$76,714	0.77	not significant
Caucasian Males	\$1,694,982	60.45%	49.35%	\$1,383,668	\$311,314	1.22	not significant
TOTAL	\$2,803,748	100.00%	100.00%	\$2,803,748			
Minority and Females	Actual Dollars	Utilization	Availability	Expected Dollars	Dollars Lost	Disp. Ratio	P-Value
Minority Business Enterprises	\$847,366	30.22%	38.59%	\$1,081,966	-\$234,600	0.78	< .05 *
Women Business Enterprises	\$261,400	9.32%	12.06%	\$338,114	-\$76,714	0.77	not significant
Minority and Women Business Enterprises	\$1,108,766	39.55%	50.65%	\$1,420,080	-\$311,314	0.78	< .05 *
Caucasian Male Business Enterprises	\$1,694,982	60.45%	49.35%	\$1,383,668	\$311,314	1.22	not significant

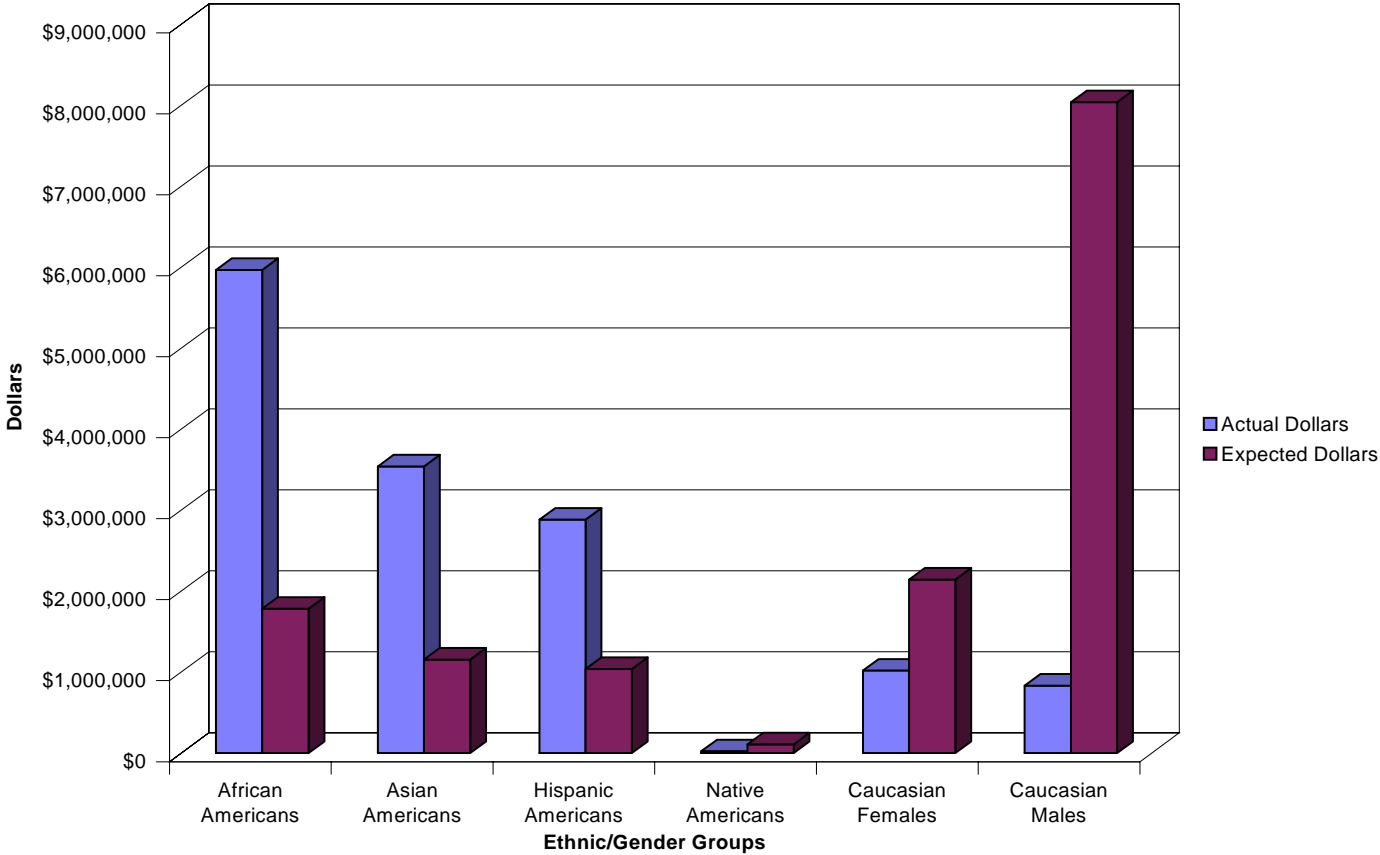
(*) denotes a statistically significant underutilization.

(†) 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.

Chart 8.02 Disparity Analysis: Architecture and Engineering Subcontracts, July 1, 2003 to June 30, 2006



Mason Tillman Associates, Ltd. December 2006
 City of Houston Disparity Study

III. SUBCONTRACTOR DISPARITY SUMMARY

The subcontractor disparity findings in the industries under consideration are summarized in Table 8.04 below.

There was statistically significant disparity found in construction subcontracts for African Americans but not for any other minority group or Women Business Enterprises. There was no statistically significant disparity found for any minority group or Women Business Enterprises in architecture and engineering subcontracts.

Table 8.04 Subcontractor Disparity Summary, July 1, 2003 to June 30, 2006

Ethnicity / Gender	Construction	Architecture and Engineering
African Americans	Yes	No
Asian Americans	No	No
Hispanic Americans	No	No
Native Americans	---	**
Minority Business Enterprises	Yes	Yes
Women Business Enterprises	**	No
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
 ** = The study did not test statistically the overutilization of M/WBEs





9

RECOMMENDATIONS

I. INTRODUCTION

The City of Houston's (City) M/WBE Program was created in 1984, with the passage of Houston City Ordinance 84-1309. The M/WBE Program was enacted to promote equity in the award of City contracts.

The disparity analysis undertaken in the Study has identified a statistically significant underutilization of various ethnic and gender groups in the award of City prime and subcontracts. Recommendations are offered in this chapter, to address the disparity identified in the statistical analysis of contracting in the four industries studied. The four industries are construction, architecture and engineering, professional services, and goods and other services.

The recommendations in this chapter are organized in three sections. Race and gender-conscious recommendations, predicated on the statistical analysis of the City's prime and subcontracts, are presented first. The second section sets forth recommendations to improve the systems the City uses to track and monitor its prime and subcontract awards and payments. The final section presents race and gender-neutral best management practices to improve access to City contracts for all businesses. These remedies are presented for the City's consideration. The City's administrators will determine, if and when, these recommendations will be implemented.

II. DISPARITY STUDY FINDINGS

The statistical analysis of disparity is a key research component of the Study. The purpose of the statistical analysis is to determine if there is a disparity between the use of M/WBEs and their availability in the market area. Disparity is defined as statistically significant



underutilization of available M/WBEs. A finding of statistical significance means that disparity results did not occur by chance.

A. Summary of Prime Contract Disparity Findings

Statistically significant prime contract disparity was identified in construction, architecture and engineering, professional services, and goods and other services. A summary of the dollar thresholds and ethnic and gender groups where disparities were identified, is presented in Table 9.01. A disparity in the utilization of available businesses is denoted by yes. No indicates that there was no disparity. The three dashes means there were too few records to perform the statistical test, while the asterisk indicates that the group was over utilized. Overutilization of M/WBEs is not a condition which is tested given the hypothesis.

Table 9.01 Summary of Disparity Findings for Formal Contracts

Ethnicity and Gender	Construction	Architecture and Engineering	Professional Services	Goods and Other Services
Formal Contracts - under \$500,000				
African Americans	No	**	Yes	Yes
Asian Americans	No	**	No	Yes
Hispanic Americans	No	**	No	Yes
Native Americans	---	---	**	---
Minority Business Enterprises	No	**	Yes	Yes
Women Business Enterprises	No	Yes	Yes	Yes
Minority and Women Business Enterprises	Yes	Yes	Yes	Yes

- Yes = Statistically significant disparity was found.
- No = Statistically significant disparity was not found.
- = There were insufficient records to determine statistical disparity.
- ** = The study did not test statistically the overutilization of M/WBEs.



Table 9.01 Summary of Disparity Findings for Formal Contracts

Ethnicity and Gender	Construction	Architecture and Engineering	Professional Services	Goods and Other Services
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In Table 9.02 a summary of the disparity identified in the award of informal contracts valued at \$50,000 and less for construction and \$25,000 and less for all other industries are presented by ethnicity and gender. In Table 9.02 the standards for reporting the statistical findings are the same as those described in Table 9.01.

Table 9.02 Summary of Disparity Findings for Informal Contracts

Ethnicity and Gender	Construction	Architecture and Engineering	Professional Services	Goods and Other Services
Informal Contracts - \$50,000 and under	Informal Contracts - \$25,000 and Under			
African Americans	No	**	Yes	Yes
Asian Americans	No	No	No	Yes
Hispanic Americans	No	No	**	Yes
Native Americans	**	---	---	---
Minority Business Enterprises	No	**	No	Yes
Women Business Enterprises	No	No	No	Yes
Minority and Women Business Enterprises	Yes	**	No	Yes

- Yes = Statistically significant disparity was found.
- No = Statistically significant disparity was not found.
- = There were insufficient records to determine statistical disparity.
- ** = The study did not test statistically the overutilization of M/WBEs.

B. Summary of Subcontract Disparity Findings

Statistically significant disparity was also found for subcontract awards. Subcontracts were analyzed in two industries - construction and architecture and engineering. There were too few professional services to assess disparity. It is recommended that comprehensive professional service subcontract records be collected on all professional service contracts



awarded. In 12 months an analysis of disparity should be undertaken to determine if there is any statistically significant underutilization of M/WBEs.

Statistically significant disparity was found in the award of subcontracts for African Americans Minority and Women Business Enterprises in construction and Minority and Women Business Enterprises in architecture and engineering services. Table 9.03 presents a summary of the subcontractor disparity findings identified in the Study.

Table 9.03 Summary of Subcontractor Disparity Findings

Ethnicity and Gender	Construction	Architecture and Engineering
Subcontracts - All Dollars		
African Americans	Yes	No
Asian Americans	No	No
Hispanic Americans	No	No
Native Americans	---	**
Minority Business Enterprises	Yes	Yes
Women Business Enterprises	**	No
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.
- ** = The study did not test statistically the overutilization of M/WBEs.

III. RACE AND GENDER-CONSCIOUS REMEDIES

A. Prime Contract and Subcontract Remedies

It is recommended that an ordinance be enacted by the City to correct the identified disparities in each industry where M/WBEs were underutilized at a statistically significant level. This action would give legal efficacy to the M/WBE utilization requirement for City contracting.



B. Prime Contract Remedies

The race and gender-conscious recommendations as presented in this section apply to those groups in each industry with identified disparity at either the informal or formal level.

Formal contracts represent 89.58 percent of the City's prime contracts awarded and 99.9 percent of the prime contract dollars awarded. Informal contracts represent 10.42 percent of the City's prime contracts awarded and 0.1 percent of the prime contract dollars awarded. Remedies for addressing the disparity in formal contracts under \$500,000 are limited to two industries on contracts where the low bid rule does not apply. Informal contracts on the other hand, which are awards valued at \$50,000 or less for construction and \$25,000 for architecture and engineering, professional services, and goods and other services, offer the potential to address the identified statistically significant underutilization of M/WBEs at the prime contract level. Informal contracts awarded without advertising or competitive solicitation could be a means of addressing the identified disparity in each of the four industries.

1. FORMAL PRIME CONTRACT REMEDY

a. Incentive Credits

Incentive credits as criteria applied in the evaluation process might counterbalance the competitive disadvantage experienced by the statistically significant underutilized groups. Incentive credits would be applied to prime contractors within these groups when the contract evaluation is based on qualifications and not on the lowest bid. Fifteen to twenty percent of the evaluation credits could be comprised of incentive credits. Incentive credits are a means of offsetting the competitive disadvantage documented in the disparity analysis. These credits would be applied to the evaluation criteria for formal contracts under \$500,000.

b. Bid Discounts

Bid discounts could be applied to contracts for construction, professional services, and goods and other services where price is one of many factors to be considered in the evaluation process. The bid price less the bid discount would be the amount considered in determining the low bidder however, the bid price would constitute the amount of the award.



2. INFORMAL PRIME CONTRACT REMEDY

a. Small Contracts Rotation Program

A small contracts rotation program should be established for informal contracts in each industry with an identified disparity. Informal contracts would be awarded under the small contracts rotation program. This program would limit competition to firms from the statistically significant underutilized groups and other small firms of comparable capacity. This program would ensure that quotations for informal contracts are solicited from a diverse pool of small businesses on a rotating basis. Because this program would award prime contracts, it is a means for building the capacity of the underutilized M/WBE businesses.

The program would apply to three industries - construction, professional services, and goods and other services. The statistically significant underutilized groups would be presumed to be eligible. The eligibility of any other minority and non minority groups would be determined through a certification process. This process would determine whether the business was small and disadvantaged.

Eligible businesses would be required to pre-qualify for the program. For the construction component, the business would have to submit its regular time and overtime wage rates and insurance certificates for approval. In addition, adjustment factors for the markup on the supplies as well as overhead costs and profit would be submitted for review. Upon approval of the contractor's fee structure, the approved rates would apply to all work orders. For other service industries, the business would pre-qualify by submitting its hourly rate schedule, overhead and profit rates, proof of insurance, and two examples of projects of similar size.

Work orders in the three industries would be assigned on a rotating basis, and no business in the rotation would be eligible to receive a second assignment until all businesses on the list had been offered at least one assignment.

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. The list of pre-qualified vendors would be posted for public view on the City's web site.



b. Staff Good Faith Efforts

City staff with informal contract purchasing authority should be required to document Good Faith Effort to solicit quotes from the statistically significant underutilized groups. Informal contracts do not require public bidding and therefore the solicitation and selection are under the discretion of staff. Good Faith Efforts would standardize the solicitation of contractors for informal contracts in a manner that could promote and support diversity.

The Good Faith Effort documentation could be a checklist required of buyers to demonstrate their efforts to solicit quotes from the statistically significant underutilized groups. The checklist would outline the criteria, detail the level of effort required, and list the documentation required to demonstrate that effort. A manager’s review and approval of the Good Faith Effort would be required to award a contract.

C. SUBCONTRACTOR REMEDIES

1. OVERALL GOALS

Subcontract goals should be promulgated as a strategy for eliminating documented disparity in the award of subcontracts to the statistically significant underutilized groups. The overall goals should reflect the availability of these groups as documented in the Study. Tables 9.03 and 9.04 depict the availability of the minority and woman-owned businesses which were underutilized at a statistically significant level. The overall goals should be reviewed at least every five years.

Table 9.03 Construction Subcontractor Availability

Underutilized Groups	Percentage of Availability
African Americans	14.09%
Minority and Women Business Enterprises	43.24%



**Table 9.04 Architecture and Engineering
Subcontractor Availability**

Underutilized Groups	Percentage of Availability
Minority and Women Business Enterprises	50.65%

2. CONTRACT SPECIFIC GOALS

As an operational principle the subcontract goals should be set on a contract by contract basis. The determination of the contract specific goals should be based on the items of work in the solicitation and the availability of the statistically significant underutilized groups at the time the contract is advertised.

3. WEIGHTED GOOD FAITH EFFORTS

Good Faith Efforts should measure a prime contractor’s affirmative steps to meet the goals. Weighted Good Faith Effort criteria should be established as standards for prime contractors to adhere to in order to achieve the contract specific goals. Each criterion, should be defined to specify the minimum behavior required to demonstrate a good faith attempt was made to meet the contract goal. Prime contractors failing to make a Good Faith Effort would be deemed non-responsive.

4. DISADVANTAGED BUSINESS ENTERPRISE PROGRAMS

Federal DBE subcontracting goals should be utilized when federal dollars are used to fund the procurement. Federal affirmative action programs, specifically the U.S. Department of Transportation’s Disadvantaged Business Enterprise Program and the U.S. Environmental Protection Agency’s Fair Share Program requires DBE goals to achieve M/WBE and other disadvantaged businesses participation. These programs, used in combination with local programs, will help to alleviate the identified disparity. These federal programs do not require a factual finding of disparity therefore the availability findings from the Study can be used to establish DBE goals for all M/WBEs not just those that were underutilized at a statistically significant level.



IV.

DATA MANAGEMENT RECOMMENDATIONS

A. Contract Data Management

1. PRIME CONTRACTOR DATA

The City's SAP financial system is designed to track purchase orders and payments to prime contractors. The prime contract data was provided to Mason Tillman from the City's SAP financial system.

There is no consistency in contract numbering in the data set received. The data set contains three different versions of contract numbers, as well as contracts without a contract number. This leaves possibilities of duplicate records and inaccurate data. Consistency in contract numbering is critical in order to maintain accurate data and to systematically track the contract records.

2. SUBCONTRACTOR DATA

Currently MWBE subcontractor information is captured in the City's Affirmative Action database system. The system is maintained by a third party vendor. Non-MWBE subcontractor information is recorded sporadically in various excel files.

The utilization of a database to track all subcontractor utilization would allow electronic recording of subcontract award and payment data. A comprehensive utilization tracking database should also be linked to the City's SAP financial system by a unique contract number. A record for each subcontract, including subcontractor name, ethnicity, gender, award amount, change orders and payments should be tracked in the database. This tool would be critical in monitoring utilization and conducting contract compliance.

B. Website Data Management

The City has an extensive website for M/WBE businesses. Due to the various items listed under the task bar, it can take some navigation and clicking around to get to the M/WBE and Affirmative Action Web Page. Additionally, there are a lot of items covered but not all are clearly laid out in sections. The task bar that appears to the left has different items than the main task bar, and the items available through the M/WBE directory web page are not necessarily available directly from the Affirmative Action/Contract Compliance



Division (AACCD) Web Page. The M/WBE and Affirmative Action materials should be organized into one web page, in order to offer easily identifiable task bar items.

Several other, more specific recommendations, to enhance the Affirmative Action Contract Compliance Web Page and offer more streamlined communication between the City and the vendors are offered for consideration.

1. STAFF CONTACT

Various departments have individual web pages listing the main director's telephone number with a description of the department's role and functions. The City should enhance its Internet presence with an easily navigable page listing all relevant City staff by first and last name, department, and position title, contact numbers and email address. Additionally, all administrative staff associated with the Affirmative Action Contract Compliance Division (AACCD) should be listed in an online staff directory. The name of each staff member possessing an email address should be linked to their email address, whereby a visitor to the site could easily send an email to a department member from the City's web page.

2. FREQUENTLY ASKED QUESTIONS PAGE

The City presently has a Frequently Asked Questions (FAQ) Page, which provides answers to general questions. The City does not have an online resource listing questions and answers most frequently encountered in the City's contracting process. The frequently asked questions documentation for the AACCD page is captured in a downloadable PDF document. The City should provide a link to the most frequently asked questions as they relate to contracting practices on the AACCD page. Providing an online version of these questions allows for ease in navigating the website, moreover it will allow for more convenient updates to the FAQ page as recurring questions need to be added.

3. CALENDAR OF EVENTS

The Certification and Outreach page of the AACCD site lists the ordinances and legislative background for the M/WBE Program and the regular time and location of pre-certification workshops hosted by the AACCD. However, there is no calendar of events or postings of recent activities. The City should create and post a calendar of events updated weekly with events and activities related to contract procurement. Additionally the City should provide links to other M/WBE trade and ethnic organization's calendar of events.



4. M/WBE PROCUREMENT GOAL LISTING

The AACCD web page lists information regarding labor compliance and the AACCD's duties, however information related to M/WBE goals is not presented on the page. M/WBE goals for City construction and architectural and engineering contracts should be made available online as part of the AACCD's web page.

5. PROVIDE DETAIL FORM INFORMATION

Presently the AACCD's web page provides a link to downloadable forms, useful for providing businesses with the necessary documents for conducting business with the City. The City could improve access to these resources by providing brief descriptions of each of the forms since their purpose is not readily discernible from the titles. This would function as a method of helping interested businesses understand which forms are applicable and under what circumstances they are required. Additionally, this information would help facilitate access to the procurement process.

6. POST PROJECT FORECASTS ON THE INTERNET

A quarterly forecast of contract opportunities should be posted on the City's Website to provide firms with adequate notice of upcoming contracts. Project forecasts would provide prime contractors and subcontractors more lead time for networking, outreach, and team building.

The City should also consider listing pending solicitations at least 15 to 30 days prior to the actual release date. The listings would consist of the draft project or product specifications, anticipated release date, subcontracting goals, and a contract name and an e-mail address. The listings should be posted at a regularly scheduled time.

7. ALLOW CERTIFIED M/WBES TO REGISTER THEIR INTEREST AS SUBCONTRACTORS FOR CITY PROJECTS VIA THE INTERNET

For each contract solicitation with subcontracting opportunities, the City could set up a link on its Website that would allow M/WBES to express interest in subcontracting on the particular project. Many M/WBES that are too small to be prime contractors on large projects are available to perform as subcontractors. Prime contractors could use this on-line source list to solicit M/WBES for current and future subcontracting opportunities.



8. POST PRIME CONTRACT AND SUBCONTRACT AWARDS ON THE INTERNET

Prime contract and subcontract awards should be posted on the City's Website. The awards should be posted prior to the close of the bid protest period. Posting contract awards would inform the business community of the results of the City's solicitations.

V. RACE AND GENDER-NEUTRAL REMEDIES

Since the Houston City Ordinance 84-1309 established the M/W/DBE/SBE Program in 1984, the City has been operating a comprehensive program to ensure equity in the procurement process. These best management practices are therefore offered as strategies to enhance the current program and remove the barriers to contracting manifested by the fact that some ethnic and gender groups are still underutilized at a statistically significant level in the award of prime and subcontracts. The City can use these best management practices as a bench mark as it formulates policy and procedures to achieve equity and reduce the documented barriers to M/WBE contracting. These recommendations would also benefit all small businesses interested in doing business with the City.

1. PROCUREMENT STRATEGIES

a. Unbundle Large Procurements into Smaller Contracts Where Feasible

Bundling occurs when small contracts are consolidated into one large solicitation, or when goods or services previously purchased individually are grouped together in a single solicitation.

Large contracts should be unbundled to maximize small business participation. During the data collection process for this Study, it was found that there were a number of large contracts awarded by the City. Unbundling these large procurements would increase the opportunities for M/WBEs and other small businesses to compete for City contracts.

In determining whether projects should be unbundled, the following criteria should be reviewed:

- Whether or not the project takes place in more than one location
- Size and complexity of the procurement
- Similarity of the goods and services procured



- Sequencing and delivery of the work
- Public safety issues and convenience
- Procurement segmentation options

The federal government has made contract unbundling a key element of its small business agenda.¹

b. Use Direct Contracting to Award Small Prime Contracts

Direct contracting can occur by awarding separate contracts for specialty or non license services which might otherwise be included as an item of work in a construction contract or within the scope of an architectural and engineering contract. Direct contracting would increase the opportunities for, and build the capacity of, small firms by allowing them to work as prime contractors.

Construction support services, including trucking, demolition, and surveying should, when feasible, be awarded as direct contracts and not as items of work in the general construction contract. Design services which are not required to be performed by a licensed engineer, architect, or registered surveyor, should be awarded as direct contracts. These services include planning, environmental assessment, ecological services, cultural resource services and testing services.

c. Establish a Direct Purchase Program for Construction Contracts

Under a direct purchase program, the general contractor includes the cost of construction materials and supplies in its bid and lists for the City the supplier's name, quantities, and quotes. The City would produce a purchase order to pay the supplier directly, and the supplier would deliver the materials to the job site according to the contractor's schedule.

The direct purchase reduces the amount of the construction bid subject to a bond. For the purpose of bonding a job, the cost of supplies could be subtracted from the bid price, thereby reducing the amount of the contractor's bond.

A direct purchase program can be beneficial to construction contractors because the cost of the contract and in turn the amount that has to be bonded is reduced by the material costs included in the direct purchase. The cash flow required to pay the supplier in advance of



¹ United States. The Office of Federal Procurement Policy (OFPP). *Contract Bundling: A Strategy for Increasing Federal Contracting Opportunities for Small Business*. Washington D.C. Executive Office of the President, October 2002.

receiving reimbursement for the materials from the prime contractor is also eliminated. In addition, the supplier, knowing that it would receive direct payment from the City, may also give the M/WBE a more competitive price, thereby reducing the overall bid price.

d. Revise Insurance Requirements

Insurance requirements should be evaluated to ensure that smaller contracts do not carry a disproportionately high level of coverage. The insurance requirements on small contracts should be set in relation to the actual contract liability amount. Prohibitive insurance requirements can be a disincentive to bidders, constitute a barrier to M/WBEs and small businesses, and increase the City's costs to procure goods and services. Revised insurance requirements would attract more vendors, thus increasing competition and reducing costs. Any revisions to the insurance provisions should comply with statutory requirements.

The City should also consider establishing an Owner Controlled Insurance Program to consolidate risk management costs and reduce the burden of the insurance premium for small vendors. The City would benefit, as well, since the vendor passes the fee for the surety bond to the City in its pricing.

e. Phase Retainage Requirements

Retainage is the percentage of the contract value withheld from each payment until the successful completion of a contract. Retainage should be eliminated for small contracts and reduced for all certified M/WBE prime contractors. In addition, the subcontractors' portion of the retainage should be released once its work has been completed and accepted. This practice would reduce the cash flow burden experienced by small construction prime and subcontractors. Increased cash flow would allow small firms to build capacity.

f. Pay Mobilization to Subcontractors

Mobilization is the initial payment made to a prime contractor when work commences on a construction project as reimburse for cost to start the job. If a mobilization payment is made to the prime contractors, the subcontractors should be paid an amount equal to their participation level on the prime contract prior to commencing their work at the time they are directed to mobilize. Project start-up costs can be significant and a firm that has limited resources and access to credit may find that expenses inhibit their ability to bid. Payment for mobilization could mitigate the start-up cost barriers faced by M/WBEs and small businesses.



g. Develop an Expedited Payment Program

In an expedited payment program, the vendor would be paid on an accelerated schedule. Expedited payments would remove a major barrier to M/WBEs and other small businesses participating in City contracts. Non-certified prime contractors meeting M/WBE participation goals would also be eligible for the expedited payment program.

Prime contractors would also be required to submit monthly invoices for payment of all work performed by subcontractors even when it is not prepared to submit an invoice for its own services. The City would pay for approved subcontractor services within ten days of the receipt of the approved prime contractor's invoice and the prime contractor would be required to pay each subcontractor within five days of receiving payment from the City.

h. Give Five-day Notice of Invoice Disputes

Within five days of receiving a disputed invoice, the contractor should receive a notice from the City detailing any item in dispute. Undisputed invoice amounts should be paid promptly, and disputed items should be resolved in a timely manner. By using this system M/WBEs and small businesses would be better able to maintain positive cash flow while providing services to the City.

i. Require Prime Contractor Validation of Subcontractor Payments Prior to Receiving Final Payment

All prime contractors requesting final contract payment should submit an affidavit with their final payment voucher to verify payments made to subcontractors. The final payment to the prime contractor should be held until the final and full payment to the listed M/WBE subcontractors is verified. This practice would ensure that all City subcontractors get paid before the contract close out is completed.

j. Review Bids and Proposals for Goal Attainment

Prime contractors should be required to list all subcontractors included in their bids, proposals, and statements of qualification and all subcontractors who submitted bids, proposals, or statements of qualification but were not listed. The listing should include the subcontractor's name, address, items of work, and award amount. A form requesting the identification of subcontractors should be included in the solicitation and required with the response at the time of bid opening. M/WBE participation should be reviewed and confirmed at the time the submission is opened. The level of M/WBE participation on each



contract recommended for award should be a matter of public record and reported in the Board Resolution.

k. Develop Formal Subcontractor Substitution Standards

Formal subcontractor substitution standards should be applied to all contracts. Eliminating a subcontractor from a project or reducing its scope of work after the time of the contract award can pose a significant hardship on a business. Subcontractor substitution standards ensure that prime contractors are accountable for subcontractor commitments made at the time of bid or proposal submission.

Any reduction in the scope of work or contract value of a subcontract should be considered as a substitution. A subcontractor should be notified in writing of the intended substitution and afforded the opportunity to respond. Substitutions should only be allowed after the City receives the subcontractor's response and produces a written approval.

l. Conduct Routine Post-Award Contract Compliance Monitoring

Routine and rigorous contract compliance monitoring is conducted to ensure that the M/W/DBE/SBE subcontractor participation listed in the bids, proposals and statements of qualification is achieved throughout the duration of a contract. The monitoring should be expanded to track the participation of all subcontractors in order to measure the level of M/WBE participation as percent of all subcontractor utilization. Adherence to any prompt payment provisions implemented should also be monitored regularly. Consistent contract compliance should minimize the hardships experienced by M/WBEs and small businesses with limited resources due to unauthorized substitutions and late payments.

2. ADMINISTRATIVE RECOMMENDATIONS

a. Require All Departments to Comply with M/WBE Requirements

The M/WBE Program procurement and reporting requirements should be followed by all City departments with purchasing authority. Uniform and consistent program implementation within each department is essential for the M/WBE Program to be effective. Each City department must comply with the M/WBE requirements, which includes compliance from staff members and prime contractors.



The program monitoring reports should describe the level of M/WBE contracting by department. The performance evaluation of all managers should include criteria on the department's M/WBE utilization and compliance with the M/WBE program requirements.

b. Publish M/WBE Utilization Reports

The M/WBE utilization reports should measure the success of the City's various programs and determine if they require modification. These reports should include verified payment and award data organized by industry and department. In addition, it should include change orders and substitutions.

Reports should be submitted to the City Council on a quarterly basis. The fourth quarter report should also include an assessment of the program activities and recommendations for improvement. Exemplary practices and achievements of the departments should be noted in the fourth quarter report. The reports should be posted on the City's web site and distributed to businesses by facsimile or e-mail upon request.

c. Evaluate Staff Compliance with the M/WBE Program

Staff compliance should be evaluated through both department-level reports of M/WBE utilization and staff performance reviews. Staff members who comply with Program requirements to utilize M/WBEs on informal contracts should be recognized. Such acknowledgment could be in the form of a letter from supervisory staff and recognition in the quarterly M/WBE utilization report. Formal recognition would provide staff with an additional incentive to meet M/WBE program requirements and reward those who consistently demonstrate a commitment to diversity. Program compliance should be included as part of manager's performance evaluation as well.

d. Recognize Buyers That Utilize M/W/DBEs

Staff who comply with the Program requirements to utilize M/W/DBEs on informal contract solicitations should be recognized. Such acknowledgment could be in the form of a letter from the contract compliance office. The Mayor could also formally recognize City departments that meet M/W/DBEs goals. Formal recognition will provide City staff and department managers additional incentives to meet business enterprise program requirements, and reward those that consistently demonstrate a commitment to diversity.

