

DISPARITY STUDY FINAL REPORT

July 30, 2009

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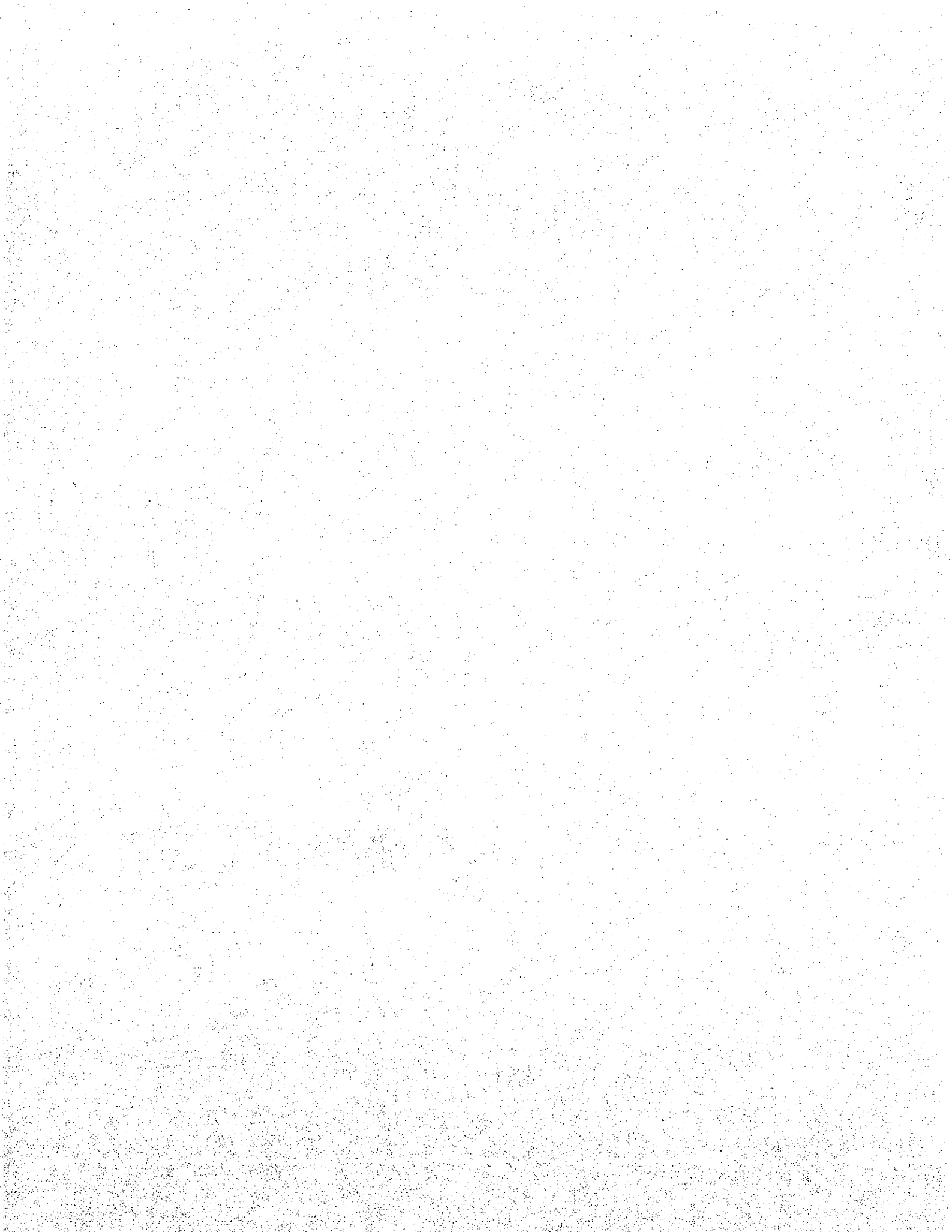
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Executive Summary Introduction

PURPOSE OF THE METROPOLITAN DISTRICT COMMISSION DISPARITY STUDY

On June 13, 2008, The Metropolitan District Commission (MDC) commissioned Miller³ Consulting, Inc. (M³ Consulting) to conduct a disparity study (the Study) to determine whether there was a compelling governmental interest to utilize race/gender-conscious remedies as established in the U.S. Supreme Court case, *Richmond v. Croson*. This Study further responds to the ensuing need to establish a factual predicate consistent with the requirements of *Croson* that determines the foundation for narrow tailoring a program targeting minority and women business enterprises (M/WBEs). In conducting this disparity study, which covered the period FY 2005 – FY 2008, M³ Consulting collected and developed evidence regarding the nature and extent of discrimination against M/WBEs, if any, and other experiences that created barriers to equitable participation with MDC.

CROSON FRAMEWORK

In *Richmond v. Croson*, the U.S. Supreme Court established a two-pronged test: (1) that a governmental entity had to show a compelling governmental interest to utilize race/gender-conscious remedies and (2) that any such remedies must be narrowly tailored. A factual predicate or disparity study is utilized to show whether there is a compelling governmental interest. Narrow tailoring is the crucial element in crafting appropriate *Croson* remedies.

Courts, for failure of local jurisdictions to narrowly tailor their remedies, have struck down many M/WBE programs. Once a factual predicate has been established, post-*Croson* case law presents several broad guidelines for crafting recommendations for M/WBE programs by a public entity, based on the factual predicate findings:

- Race/gender-conscious M/WBE programs should be instituted only after, or in conjunction with, race/gender-neutral programs.
- M/WBE programs should have a sunset provision, as well as provisions for regular review.
- M/WBE programs should have graduation provisions for the M/WBEs themselves.
- Rigid numerical quotas run a greater risk of being overturned by judicial review than flexible goals.

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- Race/gender-conscious goals, if any, should be tied to M/WBE availability and to addressing identified discrimination.
- M/WBE programs should limit their impact on the rights and operations of third parties.
- M/WBE programs should be limited in scope to only the group(s) that has suffered from discrimination in the jurisdiction enacting the program.

Focusing on the Second Circuit, the City of New Haven case set some precedent for the utilization of set-asides to nurture M/WBE creation and entry into the marketplace and to permit stabilization by insulating M/WBEs from discrimination. Sufficient statistical evidence was required to support a set-aside based on these two purposes. However, other cases decided later shows the courts have taken note of good faith efforts provisions, appropriate evidence to support a race-conscious program and other measures, which suggests that set-aside programs would undergo significant and rigorous scrutiny in this current legal environment.

Therefore, what is clear from these cases is that MDC should review the contents of this Disparity Study carefully to determine whether set-asides are the most effective means of meeting the standards outlined in *Richmond v. Croson* and ensure that its programs are narrowly tailored.

OVERVIEW OF METHODOLOGY AND STRUCTURE OF THE REPORT

In order to develop the findings and conclusions of this report, Miller³ Consulting, Inc. utilizes a methodology consisting of both qualitative and quantitative analysis in conducting our disparity study analysis. The Disparity Study is organized into two Volumes. Volume I include findings contained in nine chapters, along with an Introduction and Conclusions and Recommendations. The nine chapters are Legal Analysis, Statistical Methodology, Statistical Analysis of M/WBE Availability, Statistical Analysis of M/WBE Utilization, Statistical Analysis of M/WBE Disparity in Payments and Contract; and M/WBE Capacity and Regression Analysis, Procurement Analysis, Anecdotal Analysis, Race-Neutral Analysis, and Private Sector Analysis. Volume II includes Appendix A (tables), Appendix B (a more detailed legal analysis), and the survey instrument utilized for this Study.

The findings in each of the report's chapters are interdependent. Taken as a whole, the study presents a comprehensive picture concerning minority and women business involvement in public and private sector business opportunities. After reviewing the study and any other relevant evidence,

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MDC must determine whether to adopt the findings of the study or to adopt other findings regarding the existence of discrimination and whether any such discrimination should be remedied through race/gender-neutral means, or through race/gender-conscious means, or both. Any such policies or programs attempting to remedy that discrimination must be narrowly tailored.

FINDINGS

Below is a discussion of the findings of the Disparity Study, which are presented in summary fashion.

Quantitative Findings

M³ Consulting's findings have been divided into quantitative and qualitative findings. The quantitative findings provide the results of the statistical analysis, which includes the relevant market analysis, availability analysis, utilization analysis and disparity analysis. The qualitative analysis covers the procurement analysis, anecdotal analysis, race neutral analysis and private sector analysis.

STATISTICAL ANALYSIS OF M/WBE AVAILABILITY

The first major task of this statistical analysis was the determination of M/WBE availability (A), the denominator of the disparity ratio, U/A. There are two components in calculating availability: (1) determining the relevant market and (2) developing availability measures.

Relevant Market

Based on the data provided for this study, two relevant markets were defined. One relevant market is the State of Connecticut; and the second is the four-state area including the States of Connecticut (CT), Massachusetts (MA), New York (NY) and New Jersey (NJ). The relevant market for each industry category is as follows:

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Table E.1: Relevant Market for Industry Categories		
Industry Category	Relevant Market	
	State of Connecticut	Four-State Area
Architecture & Engineering	√	
Construction		√
Professional Services	√	
Non-Professional Services		√
Goods & Supplies		√

Source: M³ Consulting

Availability

M³ Consulting's Availability Model has three measures of availability that encompass broader measures of availability. The first gradient focuses on the narrower ready, willing and able (*RWASSM*) availability model. A broader measure is presented in the second gradient wherein availability also encompasses firms that have done business with other public sector agencies located in the same relevant market. The broadest measure in gradient three includes the Census of firms in the relevant market. Due to geographic presence of the firms, they may bid for future work and hence could be considered "available."

Figure E.1: M³ Consulting Availability Model for MDC**MDC RWASM Availability**

1. Prime and sub-bidders by contract category for each year of study period

2. Prime bidders, prime awardees (formal), subawardees and sub-bidders by contract category for fewer years

3. Prime bidders, sub-awardees, prime awardees (formal and informal purchases) for each year of study period

MDC Public Sector Availability4. Agency RWASM measure+ similar public entity prime and sub-bidders5. Agency RWASM measure + similar public entity prime and sub awardees6. Agency RWASM measure + similar public entity prime, sub awardees and vendors +
Master M/WBEs List**MDC Marketplace Availability**

7. Census

8. SBA PRO-Net

9. Reed Construction Data

Source: M³ Consulting

*Reed tables are shown in the Chapter X: Private Sector Analysis

Measuring availability is based on completeness and robustness of data maintained by MDC. Based on the RWASM measure, typically Level 1, which includes bidders and sub-bidders is most robust and hence the most preferred measure. This is because they meet the ready and willing component. Moreover, firms who bid undergo scrutiny by MDC to determine their qualifications and capacity. As

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such bidders undergo a rigorous testing of readiness, willingness and capacity. The MDC, however, does not maintain data on subbidders. Therefore, M³ Consulting cannot perform the analysis at Levels 1. Level 2 provides data on bidders, prime awardees (formal) and sub awardees, but does not capture informal prime awardees. Level 3 includes prime bidders, prime awardees (both formal and informal) and sub awardees in measuring availability for FY 2005- 2008. Based on the *RWASM* Availability Model, the availability analysis is conducted at Level 3, as presented in Table E.2 below.

Table E.2: Summary Table - <i>RWASM</i> Availability Level 3 Relevant Market The Metropolitan District Commission					
Ethnicity	A&E	Construction	Professional Services	Non- Professional Services	Goods & Supplies
	LEVEL 3¹	LEVEL 3²	LEVEL 3¹	LEVEL 3²	LEVEL 3²
	%	%	%	%	%
White male	77.24	73.71	85.63	87.72	90.27
MBE	11.38	11.79	4.89	3.66	1.85
WBE	6.50	7.86	3.06	3.02	2.22

Source: MDC Contract Bidders, Contracts bidder 05-07, PMU awardees-no bidders, RFP bidders, Winning bidders, PMU Sub Awardees, Sub Awardees, 2008 Data and PO 2005-2007 INV; 2002 Economic Census Survey of Business Owners; M³ Consulting.

1 Relevant Market = States of Connecticut (CT)

2 Relevant Market = States of Connecticut (CT), Massachusetts (MA), New York (NY) and New Jersey (NJ)

STATISTICAL ANALYSIS OF M/WBE UTILIZATION

The second major task of this statistical analysis was the determination of M/WBE utilization (U), the numerator of the disparity ratio, U/A. Presented here are measures of utilization for each category of procurement and by M/WBE status.

Utilization is reported by contract awards, purchase order awards, and payments to M/WBEs from MDC for the period FY 2005-2008. This covers the universe of all dollars and contracts awarded by MDC. M/WBE utilization in each of the major industry types of architecture & engineering, construction, professional services, non-professional services, and goods & supplies are discussed separately.

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**Table E.3: M/WBE Utilization in Percent of Dollars of Purchase Orders, Payables and Contracts
State of CT and States of CT, MA, NY and NJ
Summary of M/WBE Utilization
The Metropolitan District Commission**

Procurement Category	M/WBE Utilization Based on Dollar Value of Purchase Orders			M/WBE Utilization Based on Accounts Payables			M/WBE Utilization Based on Contract Dollars		
	(In percent)			(In percent)			(In percent)		
	MBE	WBE	M/WBE	MBE	WBE	M/WBE	MBE	WBE	M/WBE
A&E	0.06	0	0.06	0.03	0	0.03	9.49	2.98	12.47
Construction	8.66	15.26	23.92	10.11	16.46	26.57	28.19	11.26	39.44
Professional Services	2.76	0.23	3.09	2.87	0.34	3.25	8.78	3.47	12.26
Nonprofessional Services	16.32	2.42	18.74	20.71	0.16	20.89	20.70	2.85	23.55
Goods and Supplies	1.89	0.51	2.68	0.77	0.56	1.64	0.00	0.41	0.41

Source: The Metropolitan District Commission's Procurement Department; M³ Consulting

STATISTICAL ANALYSIS OF M/WBE DISPARITY IN CONTRACTING WITH CAPACITY AND REGRESSION ANALYSIS

Disparity Ratios

The purpose of the disparity analysis is to determine differences between availability and utilization of M/WBEs. The most accepted method is to calculate disparity ratios (percentage utilization divided by percentage availability) by procurement category, year, and M/WBE status.

Table E.4 summarizes the disparity ratios discussed in this chapter for each of the industry types at the race/ethnicity/gender group level, for procurements at MDC for the period FY 2005–FY 2008. The discussion of the results is presented by data source and industry category.

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**Table E.4: Summary Disparity Ratios by Race/Gender Category
The Metropolitan District Commission, FY 2005-FY 2008**

Ethnicity	Account Payable					Contract Awards (Prime + Sub)				
	A&E ¹	Construction ²	Professional Services ¹	Non-Professional Services ²	Goods & Supplies ²	A&E ¹	Construction ²	Professional Services ¹	Non-Professional Services ²	Goods & Supplies ²
Asian American	0.00**	0.35**	0.23**	46.84*	0.65**	0.44	0.12	3.63	22.74*	0.00
African American	0.01**	0.07**	1.14	0.11**	0.37**	0.01	0.37**	2.83	0.62	0.00
Hispanic American	0.00**	1.82*	0.16**	0.09**	0.28**	1.34	7.48*	0.28	3.00	0.00
Native American	ND	0.00**	ND	ND	ND	ND	0.00	ND	ND	ND
WBE	0.00**	2.09*	0.11**	0.05**	0.38**	0.46	2.60*	1.13	0.94	0.18

Source: The MDC Financial Management System, MDC Contract Bidders, Contracts bidder 05-07, PMU awardees-no bidders, RFP bidders, Winning bidders, PMU Sub Awardees, Sub Awardees, 2008 Data and PO 2005-2007 INV: M³ Consulting

¹State of Connecticut 2Four-State Area of Connecticut (CT), Massachusetts (MA), New York (NY) and New Jersey (NJ)

*Significant and Disparity Ratio is Greater than 1 ** Significant and Disparity Ratio is Less than 1

ND: Not Defined

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**Table E.5: Summary Disparity Ratios by Race/Gender Category
The Metropolitan District Commission, FY 2005–FY 2008**

Ethnicity	Purchase Orders				
	A&E ¹	Construction ²	Professional Services ¹	Non-Professional Services ²	Goods & Supplies ²
Asian American	0.00**	0.35	0.21	35.98*	0.60
African American	0.01**	0.01**	1.13	0.28**	0.00**
Hispanic American	0.01**	1.60*	0.12**	0.13**	2.72*
Native American	ND	0.00	ND	ND	ND
WBE	0.00**	1.94*	0.08**	0.80	0.23**

Source: The MDC Financial Management System, MDC Contract Bidders, Contracts bidder 05-07, PMU awardees-no bidders, RFP bidders, Winning bidders, PMU Sub Awardees, Sub Awardees, 2008 Data and PO 2005-2007 INV; M³ Consulting

¹State of Connecticut 2Four-State Area of Connecticut (CT), Massachusetts (MA), New York (NY) and New Jersey (NJ)

*Significant and Disparity Ratio is Greater than 1 ** Significant and Disparity Ratio is Less than 1 ND: Not Defined

CAPACITY AND REGRESSIONS

The various measures of capacity from the Census and the M³ Consulting survey of MDC vendors appear to be robust in that all the measures appear to show some capacity differences in M/WBEs and White male-owned firms. All measures appear to support the findings of disparity for the different MBE groups and multivariate regression of MDC vendors provide evidence that the disparity is due, in part, to the race/gender/ethnic status of firms.

As was the case with Census data, according to the other data sources, as well, M/WBEs appear to earn less than White male-owned firms. The multivariate regression supports this by indicating that, after adjusting for the impact of non-race/gender/ethnic factors, such as differences in years in business, number of full-time employees and owner's experience, M/WBEs have significantly lower revenues than similarly situated firms.

Due to low responses from the survey, however, M³ Consulting cannot conclude definitively from the multiple regression analysis that, after accounting for differences in gross receipts of a firm, race/gender/ethnicity influences the number of times M/WBEs win a bid.

Once capacity is accounted for, it appears that the number of times this group wins bids appears to be in par with similarly situated firms. Variation in their revenues (based on revenues regression), however, may not be purely due to chance and may be due to differences in to race/ethnicity/gender¹. While the disparity results, earlier in this chapter, indicate that race/ethnic/gender underutilization, due to limited data, the multivariate regression presented above cannot conclusively state that that this result is largely due to the difference in capacity of these firms.

QUALITATIVE FINDINGS

Qualitative findings provide insight into the causes of any disparity found in the statistical analysis. These analyses are important in determining whether the disparity, if any, is due to discrimination or some other reason, such as procurement barriers impacting all small firms.

¹ The caveat to note from these conclusions is that while this is true for the respondent firms, the number of respondents being low limits us to generalize these results to the population of firms that bid with MDC.

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Procurement Analysis

In reviewing MDC's procurement systems, M³ Consulting performed a two-pronged analysis: (1) a review of MDC's procurement policies, procedures, and practices (including current activities extended to M/WBEs seeking to do business with MDC), and (2) a review of the impact of MDC's procurement structure and procurement policies, procedures and practices on the ability of M/WBEs to do business with MDC.

M³ Consulting found that efforts to involve M/WBEs in the MDC contracting process are applied inconsistently throughout the organization, even though management has stated that it desires the implementation of an M/WBE program. Procedures are not in place that allow the Procurement Services Unit, Supplier Diversity, user departments and PMU to work in concert with each other to maximize M/WBE opportunities. Reporting procedures have not been established that will allow Supplier Diversity to be aware of projects in the planning stage and have reports of on-going activities reported on a monthly basis. Additionally, a structured matchmaking, technical assistance and outreach program has not been developed that will allow MDC to truly involve the total community in all contracting opportunities with the MDC.

Goal-setting on projects is not specific. The MDC Procurement Services Unit and Supplier Diversity are not isolating the various work elements within bid documents and identifying M/WBEs who are potentially available to provide the service. This methodology will enable the MDC to set goals that at times, may be higher than the current goals.

When combined with a procurement environment that has historically focused on doing business with a small number of incumbent vendors and using on-call contracts, the MDC procurement environment presents many challenges that make it difficult for M/WBEs to do business with the MDC.

Anecdotal Comments from the Marketplace

As part of the Disparity Study process, M³ Consulting sought to explore the experiences of business owners in the greater Hartford area who seek business opportunities with MDC, as well as other public and private sector entities. In total, M³ Consulting completed in-depth interviews with 33 owners and three civic organizations.

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After analyzing the anecdotal evidence, the following observations illustrate the possible barriers to minority and women business owners, as they attempt to transact business with The Metropolitan District Commission.

- MDC repeatedly utilizes the same vendors;
- MDC shows favoritism toward select contractors;
- MDC does not do business with local businesses;
- Lack of openness in the MDC procurement process;
- Lack of support by MDC to new businesses, particularly small-, minority- and woman-owned businesses;
- Prime contractors utilize unfair business practices against M/WBEs, including bid shopping, slow or non payment, non utilization of identified M/WBEs;
- Lack of sufficient MDC monitoring and tracking systems to ensure that M/WBEs are treated fairly by procurement personnel and prime contractors; and,
- Access to capital continues to be a perceived constraint for M/WBEs.

Analysis of Private Sector Disparities

The Private Sector Analysis examined various activities based on data from Reed Elsevier and PUMs. The data from Reed Elsevier covered the Hartford, CT MSA and provided the bid activity in the area for public and private projects. The following observations can be made:

- In terms of counts of projects, M/WBEs received a higher percentage of number of contracts in the private sector than in the public sector;
- In terms of project value, M/WBEs received a higher percentage of dollars in the public sector than in the private sector;
- M/WBEs are less competitive than their White male counterparts, based on the ranking of bidders;

To examine disparities in business formation from PUMS analysis on self-employment, comparing similarly situated individuals (in terms of economic and demographic variables), a White male is

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1.09 times more likely to be self-employed as a Hispanic American, over twice as likely as a woman and an Asian American, and over four times as likely to be self-employed as a African American.

The linear regression analyses estimated the impact of race and gender on self-employment earnings, controlling for economic and demographic characteristics. It is noted from this regression that, all other variables kept constant, a self-employed African American, Hispanic American or Asian American and a woman will earn less than a White male.

In addition it is also noted that, an individual on disability earns less, while the ability to speak English fluently increases self-employment income. Surprisingly, those with a college education earn about slightly less than those without a college education. Similarly, married individuals earn less than single individuals and those with homes earn slightly more than individuals without homes. Age increases earnings but this declines as a person gets older.

Consideration of Race-Neutral Alternatives

The U.S. Supreme Court in *Croson* made it clear that the second prong of the “strict scrutiny” test demands that any remedial action be “narrowly tailored” to address past or present discrimination. A program should be instituted either after or in conjunction with race-neutral means of increasing minority business participation.

Based on our findings, there are a significant number of race-neutral programs targeted to assisting and supporting M/WBEs. Some organizations continue to rely on goal-based programs to ensure M/WBEs participation in their organization’s procurement opportunity. Though race-neutral programs within the Hartford MSA have made some progress in improving M/WBE management skills, access to capital, and greater exposure to the larger business community, M/WBEs still face difficulty in gaining access to public and private sector contracting opportunities. Given this result, race-neutral programs providing management, finance and technical assistance do not appear to sufficiently address issues faced by M/WBEs in the Hartford MSA.

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Conclusions and Recommendations

CONCLUSIONS

Based on the findings in the previous nine chapters, M³ Consulting draws an inference of discrimination against:

- African American-owned firms in construction;
- African American-, Hispanic American-owned firms and WBEs in non-professional services; and,
- Asian American-, African American-, Hispanic American-owned firms and WBEs in goods & supplies.

The disparity analysis revealed statistically significant disparity in these industry categories for these groups. For A&E and professional services, the disparity analysis either revealed non-significant disparity or overutilization for all M/WBEs. The regression analysis further suggests that disparities found may be due, in part, to race/gender/ethnicity.

Table E.6: MDC Disparity Ratios					
	A&E¹	Construction¹	Professional Services¹	Non-professional Services²	Goods & Supplies²
Asian	Under	Under	Over	Over*	Under**
African	Under	Under**	Over	Under**	Under**
Hispanic	Over	Over*	Under	Under**	Under**
Native American	ND	0.0	ND	ND	ND
WBE	Under	Over*	Over	Under** ³	Under**

Source: M³ Consulting

1—Contract awards

2—Accounts payable (same results for PO data unless otherwise indicated)

3—If based on PO, underutilization, but non-significant

The statistical analysis, if reviewed in isolation, suggests that overall, MDC has utilized M/WBEs at higher levels than their availability in the marketplace or that underutilization could not be determined to be because of race/gender. In other words, the statistical analysis suggests that the MDC and the business community in which it sits has done a good job in utilizing M/WBEs on available contract opportunities. Yet, procurement processes and environmental factors may have

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guised the disparity results. It is important to remember that the statistics chart trends. The other findings and/or factors explain why this trend may exist.

The statistical analysis has captured a snapshot in time of the MDC procurement process. Through internal self-assessments, MDC had already started to recognize many organizational and process problems within its procurement process and had begun to implement changes that could significantly alter the statistical analysis after a full 12-month cycle under the new environment. However, many of these changes are outside of the purview of this study, as they were occurring post our data gathering process. It is our understanding that many other changes are still in the initial implementation phases.

The findings of this study should be reviewed in combination with other studies and activities currently underway, in order that MDC can implement a robust organizational change process that comprehensively addresses all issues completely and in a coordinated fashion.

The procurement processes and environmental factors impacting the results of the statistical analysis are as follows:

1. Barriers within the MDC Procurement Processes
2. Limited MDC Outreach to M/WBE Community
3. Local Firm Capacity
4. Private Sector Participation and Prime Contractor Practices

Barriers within the MDC Procurement Processes

M³ Consulting identified several barriers to M/WBEs attempting to do business with MDC. These procurement barriers include the following:

- MDC has historically focused on doing business with a small number of incumbent vendors and using on-call contracts;
- Efforts to involve M/WBEs in the MDC contracting process are applied inconsistently throughout the organization, even though management has stated that it desires the implementation of an M/WBE program;

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- Procedures are not in place that allow the Procurement Services Unit, Supplier Diversity, user departments and PMU to work in concert with each other to maximize M/WBE opportunities;
- Reporting procedures have not been established that will allow Supplier Diversity to be aware of projects in the planning stage and obtain reports of on-going activities reported on a monthly basis;
- A structured matchmaking, technical assistance and outreach program has not been developed that will allow MDC to truly involve the total community in all contracting opportunities with the MDC; and,
- Goal-setting on projects is not project-specific. The MDC Procurement Services Unit and Supplier Diversity are not isolating the various work elements within bid documents and identifying M/WBEs who are potentially available to provide the service. This methodology will enable the MDC to set goals that at times, may be higher than the current goals.

The end result is that these procurement practices have impacted both availability and utilization outcomes.

Availability among all firms may be lower than normally expected. For the period of FY 2005-2007, MDC data reflected a significant number of contracts on which there were only 1-2 bids. Through increased efforts to open up the bid process, FY 2008 numbers reflect an increase in the number of bidders on all MDC opportunities.

Closed procurement practices typically impact small-, minority- and woman-owned businesses to a greater degree. These firms tend not to submit bids to organizations which they consider not to be transparent, fair and equitable. This conclusion is supported by anecdotal testimony in the Anecdotal Chapter.

When comparing RWASM availability to Census, M/WBEs have lower percentage availability for Census than RWASM in construction. Numerically, however, there are a greater number of M/WBEs than reflected in RWASM; the numerical difference for White males is much larger than that for M/WBEs. When using Census County Business Patterns (CBP) to determine availability of firms within MDC's areas of specialization, again, we see much higher *numbers* of available firms based on counts than are bidding on MDC contract opportunities. Even a comparison of certified DBEs by

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CT DOT, only for MDC areas of specialization, reveals greater numbers of DBEs than are bidding on MDC opportunities.

While these firms may be potentially available, it does not suggest that CBP and CT DOT are better measures of availability, particularly given the MDC procurement environment. The low level of bid activity as shown in the procurement chapter and the negative perceptions of MDC expressed by several M/WBEs, along with anecdotal and statistical data on lack of firm financial strength does not suggest that this larger pool is “ready, willing and able” to do business with MDC.

M³ Consulting anticipates, however, that the number and mix of firms “ready, willing and able” to do business with MDC will change dramatically over the next few years, as MDC’s Clean Water project moves into full gear. With this increased procurement and contracting activity at MDC, and the completion of several major projects for other public entities in the Hartford area, firms—both White male-owned firms and M/WBEs—will begin to focus more on available opportunities at MDC.

As for utilization, the preference for doing business with a small number of firms and reliance on on-call contracts creates a significant outlier impact. That is, firms that repeatedly win contracts with MDC skew the results for a particular race/gender group. For example, one WBE significantly contributes to the utilization of WBEs in construction. When removed, WBE utilization falls from 11.26 to 8.18. One Hispanic-owned firm received a \$22 million contract in FY 2008. With the exception of this firm, Hispanic-owned firms’ utilization falls from 24.79 to 2.59 for the study period. The top ten analysis further buttresses this conclusion, as 10 firms secured over 38.74 percent of the MDC contracts awarded over the study period. M³ Consulting anticipates that the outlier effect will begin to diminish as more firms begin to bid on MDC opportunities. With greater levels of competition, incumbent firms may begin to win fewer awards. Anecdotally, MDC staff has stated that they already started to see this effect in FY 2008.

Limited MDC Outreach to the M/WBE Community

MDC traditionally has had a low level of outreach to the M/WBE community. Recent efforts have been implemented to address the outreach issue. This process, however, will take time given the high level of distrust that currently exists in the M/WBE community.

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Local Firm Capacity Issue

Firms desirous of doing business with MDC must face several capacity determinations. Any firm that wants to bid on MDC opportunities over \$500,000 must be pre-qualified by the Connecticut Department of Administrative Services. Furthermore, under the MDC charter, Sec 3-11, any "single item of capital expense not regularly recurring" in excess of \$5 million dollars must be approved by two-thirds vote of the board and a majority of the electors of the district. Any appropriation "in one year for the purpose of meeting a public emergency" over \$10 million must be similarly approved. MDC interprets these charter requirements as an upper limit on the size of its contracting opportunities. Under the 2006 Clean Water referendum, however, these charter requirements do not apply to Clean Water projects.

The threshold analysis reveals the dangers of these types of measures on firm growth and operation. For the most part, M/WBE utilization occurs below the Connecticut Department of Administrative Services (DAS) \$500,000 pre-qualification limit (when outliers are accounted for). On the other end, White male-owned firms show no participation above \$10 million. In FY 2008, MDC moved away from this charter requirement somewhat, increased its outreach, and attempted to increase the number of bidders on its contract opportunities. The end result was an award to a NJ-based Hispanic-American owned firm in excess of \$20 million. While the threshold analysis provides an inference of capacity, the MDC environment reflects that procurement operations can have a hampering effect on actual capacity.

These imposed capacity thresholds may have the greatest impact on local firms who have traditionally bid on and won MDC contracts. MDC is now moving from a period of relatively small contracts, which local firms could meet to larger contracts, which is beyond their typical capacity load. Further, MDC is moving from plant construction, which local firms have been involved into tunnel construction, which is activity in which neither MDC nor local firms have been involved to any significant degree.

Capacity, however, could expand in the Hartford area as larger firms enter the marketplace and may offer larger, more stable subcontractor opportunities to local firms. Without proactive efforts by MDC to address this lack of capacity among both White male-owned firms and M/WBEs, the opportunity to expand local firm capacity at both the prime and subcontractor levels may be missed.

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M³ Consulting's analysis of capacity based on Census data and survey data was generally inconclusive. The results do suggest that M/WBEs have significantly lower revenues than similarly situated firms. Variation in their revenues (based on revenues regression), however, may not be purely due to chance and may be due to differences in race/ethnicity/gender². Due to limited data, the multivariate regression presented above cannot conclusively state that this result is largely due to the difference in capacity of firms.

Private Sector Participation and Prime Contractor Practices

Reed Construction data revealed that M/WBEs won more contracts in the public sector than in the private sector, although participation is relatively low in both arenas. Based on data gathered over a five-year period, MBEs received 0.84 percent of private sector dollars, while WBEs received 0.00. In the public sector, MBEs received 3.30 percent, while WBEs received 2.45 percent.

The lower levels of private sector participation may be a result of unfair business practices by prime contractors. Anecdotal testimony buttressed this finding to some degree. While a few M/WBEs stated that they fared better in the private sector, some M/WBEs discussed unfair business practices utilized by prime contractors—such as bid shopping and non-utilization of named subcontractors. The MDC, on its own, discovered many of the unfair business practices outlined in the anecdotal chapter and took steps to ensure this activity was not occurring on its own contracts, including imposing penalties on firms that continued to engage in this type of activity. The MDC, based on *Croson*, should insure it is not a passive participant in private sector discrimination.

M³ Consulting was unable to probe the extent of these unfair business practices on M/WBE participation in both private and public sector opportunities, due to the high degree of mistrust and apathy in the M/WBE community, which contributed to low participation in the anecdotal and survey process. Further, building permits data from the City of Hartford was not made available for this analysis, such that M³ Consulting could further probe M/WBE participation in private sector opportunities.

Addressing any of the issues outlined above could dramatically impact both availability and utilization of M/WBEs. As such, we strongly recommend, in addition to the recommendations

² The caveat to note from these conclusions is that while this is true for the respondent firms, the number of respondents being low limits us to generalize these results to the population of firms that bid with MDC.

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outlined below, that the MDC conduct yearly statistical updates to map its progress in making adjustments to its procurement processes, using these findings as a baseline. While it may be tempting to utilize measures of potential availability, it will not provide MDC with direct results on the success of its organizational development efforts.

RECOMMENDATIONS

M³ Consulting is providing the following recommendations to MDC. The recommendations contain both race/gender-neutral and race/gender-conscious elements, which are grouped under the following categories:

- Changes in Purchasing Procedures and Practices
- Enhancements to the Minority and Women Business Enterprise Program
- Nondiscrimination Policy
- Identification of Race/Gender-Conscious Goal Possibilities
- Goal-Setting Formulas and Techniques

These recommendations consist of a listing of pertinent options from which MDC may select in narrow tailoring its efforts to the findings of this report. The options combine agency specific and best practices recommendations that are legally defensible in light of the factual findings of this study. MDC should consider adoption of those recommendations that are considered most appropriate in terms of cost, resources, likely effectiveness, community acceptance and organizational feasibility.

Following careful consideration of these recommendations, MDC will be positioned to customize and modify its current Supplier Diversity Program to enhance its effectiveness.

Race/Gender-Conscious Goal Possibilities

It is important to emphasize an annual overall goal simply establishes a target level of M/WBE participation desired by MDC. The existence of established goals is an effective mechanism for establishing objectives for MDC and in achieving the desired outcome, when effectively implemented. If operations are inflexible, it falls into a quota. The annual goal should be utilized by

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the MDC to periodically evaluate the effectiveness of its program and its project-specific efforts, as well as to gauge whether it is appropriate to increase or decrease the mix of more aggressive remedies.

In certain categories and for certain groups, race/gender-conscious means are supportable activities toward the achievement of established goals, based on the findings of statistically significant disparity. Those include:

Table E.7: Categories		
Construction	Non-professional Services	Goods & Supplies
African American	African American	Asian American
	Hispanic American	African American
	WBE	Hispanic American
		WBE

As significant disparity is eliminated in the above categories, the utilization of race/gender-neutral means in attaining the established goals should be increased. However, in all instances where race/gender-neutral means are utilized, if significant disparity re-emerges, then race/gender-conscious techniques can be utilized on a non-permanent basis to correct identified disparities.

Race/gender-neutral means should be utilized primarily for:

Table E.8: Utilization of Race/Gender-Neutral Means			
A&E	Construction	Professional Services	Non-professional Services
Asian American	Asian American	Asian American	Asian American
African American	Hispanic American	African American	
Hispanic American	WBE	Hispanic American	
WBE		WBE	

Other Recommendations

- Consider the establishment of a small business goal and/or set-aside program for capacity building;

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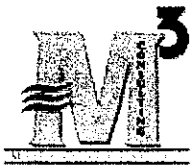
- Develop procurement and economic development council to maximize MDC's ability to contribute to economic growth and development during this period of high procurement and contracting activity over the next 10 years;
- Develop a forecasting and budgeting process that maximizes amount of lead time on opportunity identification; break large projects down in seven categories of development: Planning, Financing, Designing, Constructing, Equipping, Maintaining, Operating; identify possible subcategories of work under each category of development;
- Integrate M/WBE objectives into the purchasing process to ensure that employees with buying authority can be held accountable for M/WBE utilization results;
- Increase practices that promote the utilization of MWBEs at the prime level, such as price and evaluation preferences, unbundling of contracts, joint ventures, mentor-protégé, revising technical specifications language, eliminating bonding requirements on contracts below \$300,000.
- Utilize innovative bonding and insurance techniques, including elimination of subcontractor bonding requirements, phased bonding, reduced bonding, wrap-up insurance.
- Develop an M/WBE policy that includes the six major components of a successful program: outreach and matchmaking; certification; technical assistance; M/WBE inclusion on bid opportunities; contract award review; organizational performance evaluation
- Focus activity on matchmaking, and not simply outreach. Capacity building strategies should be incorporated into the matchmaking process. A combination of budgeting and forecasting and matchmaking increases significantly MDC's ability to increase M/WBE participation through race/gender-neutral means.
- Develop a sunset plan to ensure that, once race/gender-conscious goals sunset, the organization is prepared to maintain levels of MWBE participation in a race/gender-neutral environment.
- Develop a non-discrimination plan which is a proactive way for MDC to ensure that it is not doing business with firms that discriminate.
- Implement a goal-setting process, which includes a process for establishing project-by-project goals.

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SUMMARY

Miller³ Consulting, Inc. found that MDC purchasing activities suggest that M/WBEs continue to have some difficulties obtaining significant contracts with MDC. In submitting specific findings within the Disparity Study for MDC, M³ Consulting formulated recommendations that allow MDC to rely upon race/gender-conscious means when necessary to address entrenched disparities, while also addressing M/WBE participation through race/gender-neutral efforts. Our economic and statistical utilization analyses should serve as part of the policy and procedure-making decisions needed to ensure enhanced M/WBE participation in MDC's purchasing processes.



Volume I - Chapters



DISPARITY STUDY FINAL REPORT

July 30, 2009

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Chapter I Introduction

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Chapter 1: Introduction

1.1 Scope of the Disparity Study

On June 13, 2008, The Metropolitan District Commission ("MDC") commissioned Miller³ Consulting, Inc. ("M³ Consulting") to conduct a Disparity Study (the Study) for work related to the District's Clean Water Program. In conducting this Study, M³ Consulting collected and developed data to determine the disparity, if any, between availability and utilization of companies owned by minority- and woman-owned businesses for contracts awarded by MDC. The Study involved the following areas of analysis:

- Collection and analysis of MDC's historical purchasing and contracting records and levels of M/WBE participation covering the Study period FY 2005-FY 2008;
- Compilation of bidder lists, vendor lists, M/WBE certification lists and other lists to determine relative availability of contractors and vendors;
- A market survey analysis to determine capacity;
- An assessment of procurement and M/WBE policies and procedures that included analysis of MDC's organizational structures; a review of past and present purchasing and M/WBE laws, policies, procedures and practices; and interviews with Purchasing and M/WBE Program personnel;
- Anecdotal interviews with minority, women and White male business owners;
- Examination of participation in the private sector in MDC's market area; and,
- Analysis of race/gender-neutral alternatives to minority and women business goal-based programs.

This Study contains the results of M³ Consulting's research and provides conclusions based on our analyses.

1.2 Organization of the Disparity Study

This report consists of two volumes. Volume I included eleven chapters. Volume II contains additional statistical tables and relevant Appendices. A brief description of each chapter is outlined below.

Chapter I, Introduction, includes a synopsis of the contents of each chapter.

Chapter II, Legal Analysis, presents a brief discussion of the *Croson* decision, along with the Second Circuit's review of race/gender-conscious programs. A more detailed discussion of *Croson* and its progeny is contained in Appendix B.

Chapter III, Statistical Methodology, provides a detailed discussion of the statistical methods used in the Study for determining availability and utilization of M/WBEs and in calculating disparity. The chapter begins with a brief review of important concepts: (a) the relevant market; (b) definition of businesses' *readiness, willingness, ability* and how they affect measurement of availability; (c) measures of utilization and disparity; and (d) statistical significance. The critically important task of data collection is reviewed here, with a summary of data sources relied upon for relevant market, availability and utilization determinations.

Chapter IV, Statistical Analysis of M/WBE Availability, presents data on M/WBE availability in the relevant market based on the *Ready, Willing and Availability Able (RWASM) Model*.

Chapter V, Statistical Analysis of M/WBE Utilization, presents data on M/WBE utilization in MDC contract awards for FY 2005–FY 2008.

Chapter VI, Statistical Analysis of M/WBE Disparity in Payments and Contracting; and M/WBE Capacity and Regression Analysis, initially presents disparity ratios, which are a comparison of the availability measures in Chapter IV and the utilization measures in Chapter V. Then, the chapter examines whether firm capacity contributed in any way to the disparities observed earlier in Chapter VI. The purpose of this analysis is to determine whether, after accounting for any differences in the capacity of firms, race and gender is a contributing factor to any disparities found.

Chapter VII, Procurement Analysis, reviews MDC's Purchasing and M/WBE procedures, policies and practices and their effect on M/WBE participation.

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Chapter VIII, Anecdotal Analysis, includes a description of data collected and synopsis of comments made by minority, women and White male business owners interviewed. The interviews seek to determine the personal experiences of those interviewed in doing business within their industry or with MDC.

Chapter IX, Race-Neutral Alternatives, analyzes race/gender-neutral programs to determine if they stimulate the utilization of M/WBEs without reliance upon characteristics of race, ethnicity or gender.

Chapter X, Private Sector Analysis, examines M/WBE participation in private sector opportunities, and factors impacting their growth and development. It includes U.S. Bureau of Census Self-Employment and Apprenticeship data, local Reed Construction data, Census EEO data, PUMS analyses and the results of a mail survey distributed to minority, women and White male business owners.

Chapter XI, Conclusions and Recommendations, presents program recommendations and conclusions that flow from the findings presented in the report. These recommendations range from race/gender-conscious initiatives for MDC to substantive suggestions that pertain to the configuration of future M/WBE policy and program design.

The findings in each of the report's chapters are interdependent. This statistical analysis, when viewed in totality, provides The Metropolitan District Commission with a picture of M/WBE participation in contracting activity involving prime contracts and subcontracts for the period FY 2005-FY 2008.

Chapter 2: Legal Analysis

2.1 Introduction

The legal basis for adoption and application of a government race-conscious program was considered by the U.S. Supreme Court in the precedent-setting case *City of Richmond v. J.A. Croson Co.*³. To operate a race-based contracting program, governmental entities are required to develop a “factual predicate” which shows that:

- A governmental entity has a compelling governmental interest in having a race-conscious program; and,
- The program is narrowly tailored to remedy past or present discrimination that has been identified.

Specifically, the *Croson* decision provides that remedial action is appropriate when a detailed fact-finding study establishes:

- The existence of a significant disparity between the number of M/WBEs available to provide goods and services and the number actually utilized by the participating agency to meet its procurement needs;
- Anecdotal evidence of discrimination;
- Evidence of identified discrimination by the entity or within industries doing business with the public entity;
- Analysis of systemic barriers to the inclusion of M/WBEs in contract and procurement opportunities; and,
- Analysis of the appropriateness and effectiveness of race-neutral measures for remedying the established disparity.

Since then, a significant number of cases have been decided which further interpret the meaning of the *Croson* decision, including a significant number of cases in the Second Circuit, the judicial circuit in which the MDC resides.

³ 488 U.S. 469, 109 S.Ct. 706 (1989)

2.2 Judicial Review of Croson cases in the Second Circuit

The following is a summary of cases in the Second Circuit that have considered the constitutional permissibility of M/WBE programs.

*Associated General Contractors v. New Haven*⁴

From 1977 to 1989, the City of New Haven operated a set-aside program under a Set-Aside Ordinance known as Chapter 12½. In 1989, the city conducted studies of racism within the city's construction industry and determined that there was a continuing need for a set-aside program under Chapter 12¼. The new ordinance was based on the following findings:

- “Long entrenched and widespread patterns of racial and gender discrimination in the New Haven construction industry;
- Inability of race-neutral alternatives to achieve desired goals;
- The substantial lack of MBE and WBE participation in commercial contracts where there were no set-aside programs;
- The effectiveness of set-aside programs in increasing the participation of MBEs and WBEs in the construction industry; and,
- The need to prevent irreparable injury to MBEs and WBEs while the city continues to study race and gender discrimination in the New Haven construction industry.”⁵

The district court held that the City of New Haven had not provided sufficient evidence of “actual, present or likely future continuation of discrimination against minorities and women in the construction industry.”⁶ The court noted that this was not a finding that discrimination in the construction industry had been eradicated, but that the city had not supplied the evidence required by *Croson* and thus had no basis for the enactment of Chapter 12¼.

In reviewing the evidence, the court highlighted several points. First, the court noted that the city had not provided the statistical evidence required by *Croson*. In the evidence that was presented—the case does not indicate whether it was submitted by plaintiff or defendant—the court noted, as of

⁴ 791 F. Supp. 941 (D. Conn. 1992)

⁵ Id. at 945.

⁶ Id. at 949.

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1989, both MBEs and WBEs were receiving a share of the city's contracts in proportion to the number of firms in existence.⁷ The court further elaborated that a city may be justified in certain circumstances in continuing a set-aside program.⁸

The court provided two purposes for set-asides: (1) to nurture M/WBEs to support their creation and entry into the marketplace and (2) to permit stabilization by insulating M/WBEs from discrimination, such that they can develop capacity to compete equally with other companies in the market. The court found that the first purpose had been met.

It reviewed the statistical evidence to see whether the second purpose for relying on a set-aside was supported. It did not find the statistical evidence sufficient. According to the court, there was no data showing how M/WBEs would fair without set-asides. This analysis could have been performed by showing a difference between M/WBE participation in the private sector as compared to M/WBE participation with the city.

Further, the court found the anecdotal evidence to be insufficient to support a set-aside ordinance. The city presented only 15 examples of discrimination. Eight of the examples were related to unions and problems in training, bonding or insurance. Six examples were related to on-the-job work related incidents. Only two reflected exclusion of an MBE or WBE by general contractors.⁹

The court did find the city's ordinance was sufficiently narrowly tailored in some respects, as it had adequately considered race-neutral alternatives, allowed the contractor to use "maximum practicable efforts" to reach the goals, and had a waiver provision. The court noted, however, that the city's definition of disadvantaged included groups, such as the physically handicapped and the long-term isolated, for which no evidence of discrimination had been presented. Therefore, the ordinance was not narrowly tailored in this respect, and thus did not meet the *Croson* test for the allowable use of discriminatory classifications.¹⁰

⁷ Id. at 946.

⁸ Id.

⁹ Id. at 948-949.

¹⁰ Id. at 949. This district court opinion seems to go against the weight of legal precedent elsewhere which holds that classifications other than race, national origin, religion, lineage, and gender are routinely subject to a "rational basis" test, rather than "strict scrutiny," and as such, the narrow tailoring "prong of the strict scrutiny standard" ought not be applied to "physical handicap" and "long-term isolated" classifications which are grounded in neither race nor gender. See *Federal Communication v. Beach* (1993) and *Skinner v. Oklahoma*, ital.

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In 1994, the 2nd Circuit vacated the district court's ruling and remanded the case with directions to dismiss. The Court of Appeals found that the district court had not entered a final judgment in its 1992 opinion finding Chapter 12¼ unconstitutional. The City of New Haven had ceased its set-aside program during the appeals process. Chapter 12¼ had a sunset provision which was effective in 1993 and required the conduct of a disparity analysis to determine the need for a continued set-aside. At the time the district court entered its final judgment on August 11, 1993, Chapter 12¼ would have expired on its own and not been re-enacted. As such, the Court of Appeals rendered the issues in the appeal moot.¹¹

*North Shore Concrete and Association, Inc. v. The City of New York*¹²

The plaintiff in this case is a concrete, masonry and paving contractor that had served as both a prime contractor and as a subcontractor on various construction projects for the City of New York. This suit was filed against the city alleging that the city's M/WBE program was unconstitutional because there was no compelling interest nor was the program narrowly tailored to achieve a compelling interest.

The city's goal for MBE participation in construction contracts awarded by the city and its agencies was 14 percent; the goal for WBE participation was 9 percent. The city defended its program by producing a disparity study. This analysis showed that the proportion of qualified M/WBEs actually being utilized on city construction projects was significantly lower than the proportion of qualified M/WBEs available for work in the local construction industry. The consultant also supplied anecdotal evidence that suggested the cause for the underutilization was due to discrimination. North Shore countered asserting that the study was flawed.

The plaintiff stated the anecdotal interviews were conducted based on a biased selection process. Further, it asserted that the statistical figures showed disparity only because the consultant relied on Census Bureau data to develop its availability calculations that overestimated the number of available M/WBEs. The consultant determined the number of M/WBEs by utilizing a multiplier of the number of businesses owned by minorities and women and the total number of businesses in the area. The plaintiff further asserted that, even if the statistical data were accurate, the data did not

¹¹ *Associated General Contractors of Connecticut v. City of New Haven*, 41 F.3d 62 (2d Cir. 1994).

¹² 1998 WL 273027 (E.D.N.Y.)

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demonstrate discrimination for each group granted racial, ethnic or gender preferences, per *Croson*.¹³

However, the court found the use of Census data was a sufficient source of data for the calculation of availability, with all of its deficiencies notwithstanding, to survive summary judgment ruling. Furthermore, because the consultant narrowed its calculation of availability to those firms in the New York City MSA and the Census data used were old (1987), the city claimed that the availability figures actually undercounted the number of available M/WBEs.¹⁴

Another argument raised by North Shore was the failure to consider firm size as an explanation for disparity. However, the court noted evidence produced by the city that firm capacity can grow to meet the demand.¹⁵ The plaintiff also accused the consultant of failing to consider whether the M/WBE vendors counted toward availability were qualified and willing to do business with the city. The plaintiff contends bidder data, rather than Census data, were at least a better measure of willingness. However, the court found probative the city's defense that, "(1) the relative unavailability of and unreliability of data sources on firm qualification; (2) the lack of definitive standards as to which qualifications are necessary for the myriad of city procurements; and (3) a determination that, even if qualifications of any particular M/WBE firm were likely to have been adversely affected by specific discrimination against the firm by such entities as bonding or lending institutions, a comparison of qualifications would therefore underestimate M/WBE availability and reward prior local discrimination."¹⁶ The court found the methodology used by the consultant was not deficient as a matter of law; and there were genuine issues of fact that should have been settled by the trier of fact. Thus, the court denied the plaintiff's motion for summary judgment.

Harrison & Burrowes Bridge Constructors, Inc., et al v. Mario Cuomo, et al

The Harrison & Burrowes Bridge Constructors, Inc. (Harrison) was a New York corporation that constructed and rehabilitated bridges.¹⁷ It relied on New York state and federal government construction contracts as its primary source of business. Harrison challenged two New York highway construction contract affirmative action programs, claiming they both violated the equal protection

¹³ *Id.* at 36.

¹⁴ *Id.* at 19-20.

¹⁵ *Id.* at 25.

¹⁶ *Id.* at 24.

¹⁷ 743 F. Supp. 977, 986 (1990)

clause of the 14th Amendment.¹⁸ Both programs were designed to increase the participation of M/WBEs on federal and state funded transportation construction contracts.¹⁹ One of the challenged affirmative action programs governed New York state-funded construction contracts and the other challenged program governed federally-funded construction contracts. The scope of each program is outlined below.

New York State Affirmative Action Program:

- **Agency Goal Plan** – The contracting state agency was required to produce a remedial scheme that identified a proposed set-aside goal of M/WBE participation for the project. In determining this goal, the following facts were taken into account: “(1) the scope of the work; (2) the number, type, and availability of WBEs and MBEs in the region of the state where the contract was to be performed; (3) the dollar value of the contract; (4) the percentage of minority group members and women in the population of the region where the contract was performed; (5) the possible effects of past discrimination in reducing the participation of WBEs and MBEs in state contracts; and (6) the ability of other state agencies to meet their participation goals in a particular region of the state.”²⁰
- **Utilization Plan** – Prime contractors in state-funded contracts over \$100,000 were required to submit a plan that detailed the number of M/WBEs they planned to subcontract to in connection with the contract. The plan also detailed the amount to be paid to the M/WBEs and the type of work completed.²¹
- **Waivers** – Prime contractors must have applied for waivers if they could not meet the agency goal plan. To apply, the prime contractor needed to demonstrate a good faith attempt to solicit M/WBEs, which proved to be unsuccessful. In order to determine if a waiver should be granted, the contracting agency must have primarily considered the number of qualified M/WBEs in the area and whether the means used by the prime contractor to solicit the M/WBEs for bids was sufficient.²²
- **Sanctions** – If the prime contractor was denied the waiver request for lack of good faith effort, the contracting state agency would withdraw the construction contract and award it to

¹⁸ *Id.* at 978.

¹⁹ *Id.*

²⁰ *Id.* at 981.

²¹ *Id.*

²² *Id.*

the next lowest bidder. The disqualified prime contractor, however, would have such an adverse decision reviewed at an administrative hearing. Lesser sanctions were available to the contracting agency, including arbitration.²³

Federal Affirmative Action Program:

- Set-aside – A prime contractor who was a recipient of federal highway funds should have contracted ten percent of its work to M/WBE s.
- Goal – The program set specific goals for each individual construction contract. These goals were determined based on “the dollar amount of the contract, the location within the state of the work to be performed, and the type of work to be performed.”²⁴
- Good faith – In determining whether the prime contractor showed good faith when subcontracting, the factors considered were: (1) the means of advertisement used to solicit M/WBEs; (2) whether complete information was made available to M/WBEs for applying; and (3) if the contracted work was redesigned to appeal to M/WBEs and increased their involvement.
- Sanctions – Non-compliance with the affirmative action program goals will cause the prime contractor to lose the construction contract.

Plaintiff’s complaint detailed five state- and one federally-funded government construction contracts in which it placed bids. Out of these six, Harrison was awarded four contracts.²⁵ Nevertheless, Harrison received warning letters regarding all four awarded bids, cautioning that it would face sanctions if it did not meet the agency goal plan for M/WBE participation on all four contracts. Harrison contended that the time and resources spent to meet compliance with the state affirmative action program was overly burdensome.²⁶ Thus, Harrison filed suit, seeking an injunction against enforceability of the federal and state affirmative action program and monetary damages.

The defendant contended that Harrison lacked standing to challenge the programs, yet the district court ruled in favor of Harrison on the standing issue.²⁷ The court also considered whether an

²³ *Id.*

²⁴ *Id.* at 984

²⁵ *Id.* at 987; Harrison’s bid on one state contract was rejected because the state withdrew its contract, thus rejecting all bids. Harrison’s rejected contract bid was placed on the federal contract.

²⁶ *Id.*

²⁷ *Id.* at 995.

injunction should be issued, based on likelihood of success on the merits and irreparable injury in which a monetary award can not sufficiently compensate.²⁸ Ultimately, the court ruled in part for the plaintiff, ordering an injunction against the enforcement of the state affirmative action program. The court, however, also ruled in favor of the defendant and upheld the federal affirmative action program. The court reasoning was as follows:

- *Likelihood of Success* – The court found that Harrison had a great likelihood of success in the matter challenging the state affirmative action program because there was not enough evidence of past discrimination amongst M/WBEs to justify such a program.²⁹ In contrast, the court ruled that Harrison did not have a substantial likelihood of success in its challenge of the federal affirmative action program because it was upheld in *Fullilove*,³⁰ which was still the controlling law. Based on *Fullilove*, the court had an overwhelming amount of evidence, which proved that there was past discrimination preventing M/WBEs from participation in the construction contracting process.³¹ Thus, the plaintiff's likelihood of success was not likely on the federal claim.
- *Irreparable injury* – Since Governor Cuomo and Commissioner White (named defendants in this matter) were subject to the defense of qualified immunity, Harrison was unable to collect monetary damages in this matter regarding both the federal and state affirmative action program.³² Therefore, the court found that the plaintiff met its burden for injunctive relief on the state claim.³³

In 1991, Harrison and Burrowes, again joined by Laquidara, Inc., made a second attempt at challenging the NYSDOT's affirmative action program seeking a declaratory statement of unconstitutionality and injunctive relief.³⁴ The court likened this case to *United Fence v. Cuomo*³⁵, as completely identical issues, and decided both cases on the same day.³⁶ In the case at hand, the defendants argued that there was no live controversy present in the case because of the suspension

²⁸ *Id.*

²⁹ *Id.* at 1002.

³⁰ 448 U.S. 448 (1980)

³¹ 743 F. Supp. at 1003

³² *Id.* at 997.

³³ *Id.*

³⁴ 1991 U.S. Dist Lexis 13962

³⁵ 1991 U.S. Dist. Lexis 14260

³⁶ 1991 U.S. Dist Lexis 13962

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of the NYSDOT program, specifically the good faith efforts requirement.³⁷ Therefore, Harrison & Burrowes and Laquidara Inc. could not be presently injured by the program while it was not currently being enforced. The court again found in favor of the defendants, finding that the plaintiff's claim was moot.

In 1992, Harrison & Burrowes, along with Laquidara Inc., filed an appeal of the district court's decision. While the appeal was pending, however, they both filed a third action in the district court solely to collect attorney's fees on the previous matter.³⁸ The only way for the plaintiff's to be eligible to be reimbursed for attorney's fees by the defendants would be if they prevailed in the previous case.³⁹ The district court considered two important factors to decide this case:

- a. Whether the goal of the litigation was achieved; and,
- b. Whether plaintiffs' litigation efforts caused the state to suspend the program.⁴⁰

Although the court found that the goal of the litigation was somewhat achieved by this case, it was not convinced that the suspension of the NYSDOT affirmative action program was as a result of plaintiff's litigation.⁴¹ Rather, the court ruled the suspension was incidental, and thus, the plaintiffs were denied attorney's fees because they did not prevail in the previous case.⁴²

A few months later, the 2nd Circuit made its decision regarding the plaintiff's appeal. The court affirmed the decisions of the lower court, with a holding almost identical to the first case:

- The NYSDOT affirmative action program was constitutional, as a compelling government interest was demonstrated and the program was narrowly tailored.
- The plaintiff's claim was moot.
- The defendants were protected by qualified immunity.

³⁷ *Id.* at 16.

³⁸ 1992 U.S. Dist. Lexis 4663

³⁹ *Id.* at 7.

⁴⁰ *Id.* at 10.

⁴¹ *Id.* at 17.

⁴² *Id.*

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United Fence & Guard Rail Corp. v. Mario Cuomo, et al

United Fence & Guard Rail Corp (United Fence) is a corporation engaged in the business of manufacturing, selling, and installing guard rails, as well as other highway equipment.⁴³ United Fence is located in New York and is heavily dependent on contracts let by the New York State Department of Transportation (NYSDOT). From 1985 to 1988, United Fence contended that it experienced a dramatic decline in awards of NYSDOT contracts due to a New York affirmative action program created to increase the participation of M/WBEs in state/federally funded highway construction projects.⁴⁴ Therefore, United Fence filed suit in the district court challenging the constitutionality of the NYSDOT affirmative action program.

The challenged program was created to model the Public Works Employment Act of 1977,⁴⁵ a federal affirmative action program.⁴⁶ Similar to The Act, the NYSDOT affirmative action program determined the eligibility of M/WBEs for certification, created a remedial scheme that required contractors and subcontractors to make a good faith effort to reach goals for minority business participation, and allowed waivers to contractors that unsuccessfully attempted a good faith effort at reaching the goals of the affirmative action program.⁴⁷ United Fence's challenge attacked the high M/WBE participation goals, claiming they were not constitutionally justified. Additionally, United Fence claimed that NYSDOT used quotas to implement the program.⁴⁸

The district court, however did not reach the merits in this case, as summary judgment was granted to the defendants. The district court followed the decision made in *Harrison & Burrowes v. Cuomo*⁴⁹ (decided the same day as the case at hand), and declared the plaintiff's claim to be moot because the challenged NYSDOT affirmative action program was suspended at the time, and thus United Fence could not be injured by the program while it was currently dormant.⁵⁰ Although the NYSDOT

⁴³ 878 F. 2d 588, 590 (2nd Cir 1988)

⁴⁴ *Id.* at 596.

⁴⁵ The Public Works Employment Act of 1977 (The Act) detailed a federal affirmative action plan to increase M/WBE participation in federally and state funded public works projects. The Act determined that 10 percent of each grant must be set-aside for M/WBEs. The Act was challenged on constitutional grounds and upheld in the case of *Fullilove v. Klutznick*, 448 U.S. 448 (1980). After The Act was upheld, further legislation was passed requiring states to create similar affirmative action programs that mirror The Act.

⁴⁶ 878 F. 2d. at 590

⁴⁷ *Id.* at 591.

⁴⁸ *Id.* at 594.

⁴⁹ 1991 U.S. Dist. Lexis 13962

⁵⁰ 1991 U.S. Dist Lexis 14260

program was undergoing changes, United Fence could not show a live controversy until the revised regulation was promulgated.⁵¹

The plaintiff appealed the decision to the U.S. Court of Appeals (2nd Circuit). At issue, the court had to decide whether the case was barred by the 11th Amendment of the Constitution⁵² and whether the Pullman Doctrine⁵³ controlled, due to pending matters in other cases with similar issues. Ultimately, the Court of Appeals decided that the Pullman Doctrine was not applicable in the case at hand because “abstention was not required for interpretation of parallel state constitutional provisions.”⁵⁴ The court found that the federal courts and state courts were equally qualified to evaluate the validity of this action.⁵⁵ Additionally, the plaintiff’s claim regarding damages was an issue for the trial court to decide. Therefore, the Court of Appeals reversed and remanded the case back to the district court for determination on all claims including the 11th Amendment issue.

2.3 Conclusions

The City of New Haven case set some precedent for the utilization of set-asides to nurture M/WBE creation and entry into the marketplace and to permit stabilization by insulating M/WBEs from discrimination. Sufficient statistical evidence was required to support a set-aside based on these two purposes. However, other cases decided later show the courts have taken note of good faith efforts provisions, appropriate evidence to support a race-conscious program and other measures, which suggests that set-aside programs would undergo significant and rigorous scrutiny in this current legal environment.

Therefore, what is clear from these cases is that MDC should review the contents of this Disparity Study carefully to determine whether set-asides are the most effective means of meeting the standards outlined in *Richmond v. Croson* and ensure that its programs are narrowly tailored.

⁵¹ *Id.* at 37.

⁵² The Judicial power of the United States shall not be construed to extend to any suit in law or equity, commenced or prosecuted against one of the United States by Citizens of another State, or by Citizens or Subjects of any Foreign State, U.S. Const. amend. XI.

⁵³ Federal courts should abstain from decision when difficult and unsettled questions of state law must be resolved before a substantial federal constitutional question can be decided.

⁵⁴ 878 F. 2d at 596

⁵⁵ *Id.* at 595.

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A full analysis of the legal basis for adoption and application of a government race-conscious program can be found in the Appendix B.

Chapter 3: Statistical Methodology

3.1 Introduction

This chapter discusses the statistical methodology employed by M³ Consulting in The Metropolitan District Commission (MDC) Disparity Study in two parts. The first part is a conceptual discussion of the statistical methodology for analysis of minority- and women-owned business enterprises. The second part is a discussion of data sources, data collection procedures, data gaps and implications of the gaps on the statistical analysis.

3.2 Statistical Methodology

The statistical methodology includes a presentation of the two types of availability: “*actual availability*” and “*potential availability*”; and M³ Consulting’s “*Ready, Willing and Able*” (RWASM) model. M³ Consulting has adapted this model to the specific data sources available for this study. The statistical methodology section concludes by defining the disparity ratio and significance tests, crucial for drawing conclusions regarding any disparity in MDC’s recent history of contracting with M/WBEs.

The second section of this chapter provides details of data sources and data issues related to these sources.

RELEVANT MARKET MEASUREMENTS

Analysis of disparity begins with the identification of the relevant market. The relevant market establishes geographical limits to the calculation of M/WBE availability and utilization. Most courts and disparity study consultants characterize the relevant market as the geographical area encompassing most of a public entity’s commercial activity. The *Croson* Court required that an M/WBE program cover only those groups that have actually been affected by discrimination within the public entity’s jurisdiction.⁵⁶ Yet *Croson* did not provide particularized guidance on the estimation of the relevant market for the purposes of constructing a factual predicate study. Based upon lower court rulings, however, there are two requirements for determining the relevant market:

⁵⁶ *Richmond v. Croson*, at 725.

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- a. the boundaries of the relevant market must be geographically near that of the political jurisdiction enacting the program; and
- b. the relevant market must encompass the bulk of the commercial activity of said political jurisdiction.

Many disparity studies of local areas take the metropolitan statistical area (MSA) as the relevant market.⁵⁷ Certain other jurisdictions (e.g., the cities of Dallas, Texas and Los Angeles, California) have restricted the relevant market to include only those firms within their jurisdiction.

Two methods of establishing the relevant market area have been used in disparity studies. The first utilizes vendor and contract awardee location of dollars expended by an entity in the relevant industry categories.

In the second method, vendors and contractors from an entity's vendor or bidder list are surveyed to determine their location. The former is based on approaches implemented under the U.S. Justice Department guidelines for defining relevant geographic markets in antitrust and merger cases. M³ Consulting has developed an alternative method for determining an entity's relevant market by combining the above methods and using an entity's bidder lists, vendor lists, and awardee lists as the basic foundation for market definition.

By examining the locations of bidders, vendors, and winners of contract awards, M³ Consulting seeks to determine the area containing a preponderance of commercial activity pertaining to an entity's contracting activity. While case law does not indicate a specific minimum percentage of vendors, bidders, or contract awardees that a relevant market must contain, M³ Consulting has determined a reasonable threshold is 60-70 percent, for each of bidders, vendors, and contract award winners. Further analysis may be necessary if there are "large" differences in the percentages of these three measures. In architecture & engineering, construction, goods & supplies, non-professional services, and professional services, relevant market calculations were based on vendors, bidders and contracts. Details regarding each of these lists are discussed later in this chapter.

⁵⁷ See, for example, *Concrete Works v. Denver*, 823 F Supp 821, at 836, n. 11; rev'd on other grounds, 36 F.3d 1513 (10th Cir. 1994). Some earlier studies followed antitrust precedent in using an 85 percent benchmark as the relevant market. See, e.g., DJMA, *Disparity Study for the Orange County Consortium* (1993).

AVAILABILITY ANALYSIS

This section presents a discussion of the availability estimates for M/WBEs who are *ready, willing and able* to perform work on contracts for MDC.

The fundamental comparison to be made in disparity studies is between firms owned by minorities and/or women ("M/WBEs") and other firms ("White male-owned firms") *ready, willing and able* to perform a particular service (i.e., are "available"), and the number of such businesses actually being utilized by the locality or its prime contractors.

Ready, Willing, and Able (RWASM) Model⁵⁸

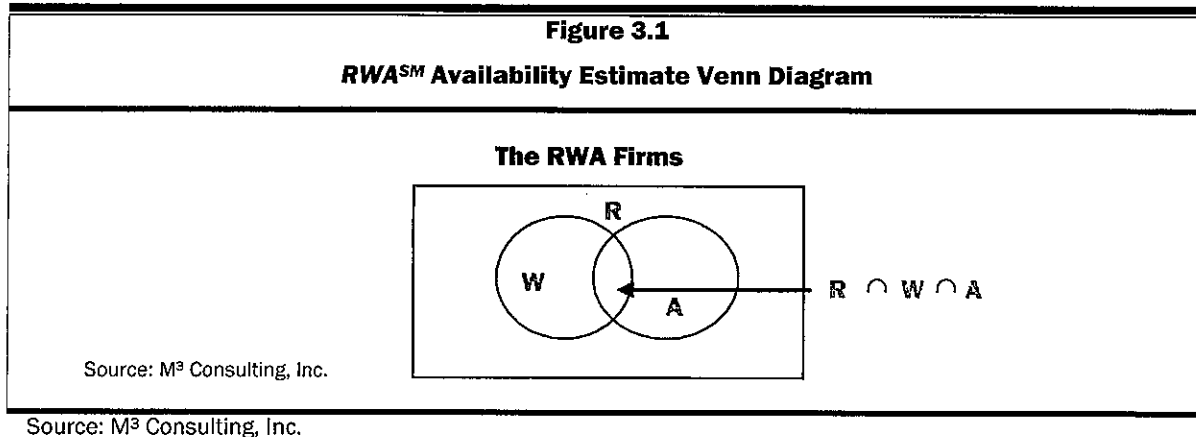
The concept of the "*Ready, Willing and Able*" (RWASM) estimate is derived from the U.S. Supreme Court's statement that:

Where there is 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 the locality or the locality's prime contractors, an inference of discriminatory exclusion could arise.⁵⁹

The basic assumption underpinning RWASM estimates is that a business must exist and actively seek to do business with a particular entity, and have the capacity to perform contracts of the types the city awards, in order to be included in the pool of businesses "actually available" to perform on the entity's contracts. The M³ Consulting RWASM estimate is illustrated in Figure 3.1.

⁵⁸ M³ Consulting developed the RWASM model in 1992.

⁵⁹ *City of Richmond v. J.A. Croson*, 109 S.Ct. 706, at 729 (1989).



The first component of the model, “ready”, simply means a business exists in the market area. The second component, “willing”, suggests a business understands the requirements of the work being requested, and wants to perform the work. The third component, “able”, defines the group of firms with capacity to do the job.

M³ Consulting uses the U.S. Census Bureau’s estimate of the number of firms in a particular area to measure firms “ready” to do business with the city.

It is possible, however, that not all existing firms want to contract in the public sector. The “willing” requirement reduces the census estimate to the number of firms interested in doing business with MDC.

The third component, “able”, defines the group of firms with the capacity to perform the tasks necessary to complete the job. The “able” requirement further reduces the number of firms available to do business with an entity. Parties who are seeking to explain what the Supreme Court meant usually raise the capacity issue of qualified minorities. In *Concrete Works v. Denver Fd.* 823 F. Supp. 821 (D.Colo.1993), the Colorado district court reviewed the challenged availability/utilization analysis submitted by the City and County of Denver. The Concrete Works Company challenged the use of availability measures and suggested that the appropriate standard was capacity. The court provided a lengthy discussion of the capacity arguments:

Capacity, as Concrete Works' expert economist points out, is ideally measured by the total amount of business that could be handled by MBEs. There are typically three measures used to predict the amount of business that W/MBEs can handle: the number of W/MBE companies relative to the total number in the industry (also known as 'availability'), W/MBE revenue as a percent of industry revenue, and the number of W/MBE employees as a percent of the industry total . . . [A]s evidenced both by Concrete Works' failure to suggest an alternative way to measure capacity and the admission of its expert that availability is more often used in actual practice, the ability of a firm to handle any given amount of business is exceedingly difficult to define and even more difficult to quantify. Capacity is a function of many subjective, variable factors. Second, while one might assume size reflects capacity, it does not follow that smaller firms have less capacity; most firms have the ability and desire to expand to meet demand. A firm's ability to break up a contract and subcontract its parts make capacity virtually meaningless . . . Finally, Concrete Works can cite no authority for its assertion that its amorphous, ambiguous conception of capacity is required. No court to date has required a comparison of a firm's 'ability to handle work.'⁶⁰

An example of how variable capacity can be is provided by data from the Texas Historically Underutilized Business (HUB) Program. Contract dollars awarded to Black businesses in Texas under the HUB program rose from \$2,067,404 in 1992 to \$30,255,793 in 1993 – a fourteen-fold increase. Hispanic business utilization under the HUB program rose from \$7,586,180 to \$113,349,517 over the same period—a nearly fifteen-fold increase in one year.⁶¹

The figures in this example suggest M/WBE capacity may be extremely elastic and responsive to opportunities made available by public contracting.

Ready, Willing, and Able (RWASM) Model Applied to MDC

"Readiness", as used in The Metropolitan District Commission Disparity Study, is an indication that a firm is present in the market area studied. "Willingness" to engage in contracting with a contracting entity as understood for purposes of this study, is a concept that cannot be observed directly, but must be inferred through volitional behavior on the part of a firm. Willingness can be affected greatly by the particular type of service area under which a potential project may be classified, the general

⁶⁰ *Concrete Works v. Denver Fd.* 823 F. Supp. 821 (D.Colo.1993)

⁶¹ Texas Select Committee on Historically Underutilized Businesses, Expenditures –State of Texas (October 11, 1994).

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level of market demand, previous contracting and management practices utilized by a contracting entity, legal and other administrative requirements that must be adhered to, as well as other factors.

“Ability”, as used in this study, is synonymous with “capacity,” and refers to the measure of additional work a firm can take on at a given point in time.⁶² Ability is only imperfectly observable directly, and must also largely be inferred through external proxies such as number of employees, size of past revenues, and number of years in business.⁶³ A firm may have the “ability” to perform a contract either because it already has the staff and resources to perform the work, or because it can readily hire sufficient staff and acquire sufficient resources for that purpose.

⁶² The appropriate definition of capacity should be closely related to objective criteria used to determine qualifications, as discussed above. Ideally, one wants to identify and use “discrimination-free” measures of capacity in determining the pool of available firms.

⁶³ See also discussion of capacity determination for bidders at p. 11-18

CONCEPTUAL AND DATA ISSUES WITH AVAILABILITY

For purposes of The Metropolitan District Commission Disparity Study, M³ Consulting considered “actual availability” and “potential availability.”

“Actual Availability”

“Actual availability” refers to firms that have affirmatively shown interest in doing business with The Metropolitan District Commission (MDC) in one or more of the following ways: bidding for a MDC contract; being awarded a MDC contract; or being included on MDC’s vendor list.

RWASSM Actual Availability in MDC

M³ Consulting’s RWASSM model focuses on firms “actually available” to do business with MDC.

The overriding consideration for specifying availability estimates for MDC disparity analysis is to include firms that have actively sought to contract or provide goods and services to MDC. Additionally, M³ Consulting’s “*Ready, Willing and Able*” methodology seeks to define similarly those MBEs, WBEs, and White male-owned firms to be included in the availability analysis.

The RWASSM estimates define availability conservatively and include only those firms that have presented themselves to MDC as *ready, willing* and *able* to conduct the work requested by MDC departments.

In the arena of MDC contracting, based on available data, M³ Consulting conducted an RWASSM availability analysis (*i.e.*, an analysis of “actual availability”) using lists of prime bidders, prime awardees and subawardees for FY 2005 - FY 2008, bid and book lists as of May 15, 2008.

“Potential Availability”

In contrast to “actually available” firms, M³ Consulting also defines firms that may exist in the relevant market and may in the future express an interest in doing business with MDC. Hence, we treat these firms as “potentially available.”

"Potential Availability" in MDC

"Potential availability" refers to firms present in the MDC market beyond those "actually available" to include those that have not bid on MDC work or taken other affirmative steps toward doing business specifically with MDC (as opposed to other public and private sector clients) during the study period.

M³ Consulting presents two types of "potential availability": "public sector availability" ⁶⁴ and "market place availability." Either of these measures could be used as benchmarks in setting goals or in developing outreach initiatives in order to encourage firms to come forward and express an interest in MDC contracting opportunities.

M³ Consulting uses the following as sources to identify firms "potentially available" as contractors for MDC:

- a. **Public Sector AvailabilitySM** – Includes lists of available firms known to various public sector agencies including but not limited to The Metropolitan District Commission (MDC) in the relevant market region. These firms are closer to *RWASM* having expressed an interest in contracting opportunities with other public sector agencies with similar standards and limitations as MDC. This availability measure includes a compilation of:
 - a. Lists of public agencies' bidders and awardees
 - b. List of M/WBEs certified by other public agencies
- b. **Market Place Availability** – Including these firms in the availability measure expresses the 'universe' of all firms in the relevant market which firms may or may not be considered *RWASM*. The lists that represent this availability measure are:
 - a. Census Data
 - b. SBA PRO-Net
 - c. Dun & Bradstreet Data
 - d. Reed Construction Data

⁶⁴ M³ Consulting developed the "Public Sector Availability" Model in 2006.

“Actual Availability” vs. “Potential Availability”

In summary, the difference between *“actual availability”* and *“potential availability”* sometimes identifies the area of availability that may be affected by discrimination, lack of outreach, lack of interest, lack of specific expertise required by the public entity, and lack of capacity.

The availability model with a description of these measures is presented in Figure 3.2.

Figure 3.2: Availability Model

RWASM Availability

1. Prime and sub-bidders by contract category for each year of study period

2. Prime and sub-bidders by contract category for fewer years

3. Prime bidders, sub-awardees, prime awardees (informal purchases) for each year of study period

4. Prime bidders, sub-awardees, prime awardees (informal purchases) for fewer years period

5. Prime bidders, sub-awardees, prime awardees (informal purchases) + Vendors + certified M/WBEs
for fewer years period

Public Sector Availability

6. Agency RWA measure+ similar public entity prime and sub-bidders

7. Agency RWA measure + similar public entity prime and sub awardees

8. Agency RWA measure + similar public entity prime, sub awardees and vendors +
Master M/WBEs List

Marketplace Availability

9. Census

10. SBA PRO-Net

11. Dun & Bradstreet

12. Reed Construction Data

Source: M³ Consulting, Inc.

POTENTIAL AVAILABILITY CALCULATIONS

U.S. Census Bureau Potential Availability Data

Measures of “potential availability” may be found in data provided by the Bureau of the Census. The standard source of evidence for firms owned by minorities and women is the 2002 Economic Census – Survey of Business Owners (SBO). Census SMOBE and SWOB 1997 was subsumed into the Census Survey of Business Owners (SBO) in 2002 . Census SBO is based on the 2002 North American Industry Classification System (NAICS). The SBO covers 20 NAICS industries which it uses to group and categorize all business descriptions. Sub categories are not available from this source. M³ Consulting classifies each category for each industry area into the appropriate industry. The 2007 SBO is currently being completed.

Corresponding census data on White male owned-firms have been calculated by subtracting the number of M/WBEs from either the count of total business establishments in the Bureau of the Census' *County Business Patterns* or from the unpublished counts of all firms measured in the business census data.

M³ Consulting developed census-based availability estimates using data provided by the Bureau of the Census (U.S. Census Bureau) for construction, professional services (including architecture and engineering), non-professional services, and supply of goods. Since the census data in the published reports include broad industry categories, one must match the appropriate census industry categories with the three broad procurement categories listed above. These U.S. Census Bureau estimates are based on firms with paid employees, a more conservative estimate of availability than the set of total firms (*i.e.*, including firms without employees) and ensure a better baseline level of firm capacity than would analysis based upon a total of all U.S. Census Bureau firms.

Tabulations performed by M³ Consulting to create census-based availability measures include counts for individual proprietorships, partnerships, and subchapter S corporations. Corporations other than S corporations (usually referred to as C corporations) are not included in these data.⁶⁵ The SBO data define a business as an entity that files a tax return; the data are, in fact, derived from a survey of

⁶⁵A sole proprietorship is a business that filed a Schedule C with a personal 1040 tax return for 1997. A partnership is a business that filed a 1065 tax form for 1997. An S corporation is a corporation that filed an 1120S tax form for 1997. A business must have 35 or fewer owners to be an S corporation.

tax returns. Businesses file tax returns for each Employee Identification Number (EIN) they have. If a business had more than one EIN, each EIN is treated as a separate business in SMOBE/SWOB.

When using SMOBE/SWOB data, it should be noted there may be cells in which there are no SMOBE/SWOB businesses due to the small samples used in the sampling technique. Such businesses, however, may exist, but may not have been part of the U.S. Census Bureau sample. The census sample estimate and an estimate of its relative standard error can be used to construct an interval estimate, which includes the average results of all samples with a certain level of confidence.⁶⁶

DUN & BRADSTREET (D&B) POTENTIAL AVAILABILITY DATA

Because Dun & Bradstreet (D&B) is a good source of micro-business data, M³ Consulting also analyzes this data set as a potential availability measure that reflects all businesses, inclusive of micro-businesses in the Hartford area relevant market region. The D&B includes capacity data such as sales revenues, number of full-time employees, office space (as a proxy for size).

Both the U.S. Census Bureau and D&B lists have been compiled through statistically sound survey techniques conducted by the U.S. Census Bureau and Dun and Bradstreet, Inc. respectively. As such, these lists include the “universe” of firms potentially available to do business with MDC and are statistically reliable. The MDC chose not to include D&B and M³ Consulting did not conduct this analysis for MDC.

In addition to these two lists, Reed Elsevier publishes construction activity data across the country that includes construction projects in the planning phase, with the information on the owner of the project, description, value and location of the project. If the project goes to fruition, the general contractor, sub contractors and the architect and engineer that bid are listed with the projects, thus creating an additional list of ‘potentially available’ firms.

The U.S. Small Business Administration (SBA) maintains a database of small-, minority-, women-, and White male-owned firms that register as firms that are interested in doing business with the federal

⁶⁶ In addition, there are non-sampling errors associated with the SMOBE/SWOB data, as there are with all surveys and censuses. These are attributable to many sources, including imputation for missing data and errors in data collection. Imputation and data review are designed to provide reliable estimates at the national level and at the two-digit SIC level. The effect of non-sampling errors will be more significant for detailed subnational data (at the state level and below). The Census Bureau did not provide explicit measures of the non-sampling errors.

government. The vendors register in one of three categories: construction, services, or manufacturing. This database includes average revenue figures that can be used as a proxy for “capacity” comparisons between M/WBE and White male-owned firms.

Other Lists

Other lists, such as certification lists, chamber of commerce lists, and licensing lists are often not compiled by any statistical technique and are not reliable in the accuracy of the information presented. Therefore, M³ Consulting does not normally rely upon these lists for availability measurement. The information they provide, however, can be used to identify the race and gender of available firms. Once these lists have been used for this purpose, M³ Consulting does a random survey of such firms to verify the accuracy of the race and gender information.

UTILIZATION ANALYSIS

Numbers of Contracts, Dollar Value of Contracts or Numbers of Firms

Utilization represents the contracting and subcontracting history of White male-owned firms and M/WBEs with MDC.

In developing the contract database to be used as the basis for determining utilization, there are three alternative measures of utilization that can be taken in each industry category. These are:

- a. the numbers of contracts awarded,
- b. the dollar value of contracts received, and
- c. the raw numbers of firms receiving contracts.

Each measure can lead to differing conclusions of underutilization and disparity. Accounts payable (AP) and purchase order (PO) data was reported. However, sometimes payments do not match the purchase order amounts as payments against purchase orders can span several years. M³ Consulting found the contract award data for MDC to be most reliable.

The current report presents two of the three measures of utilization: the number of contracts awarded and the dollar value of the contract awards. Both dollars and counts are reported in order to determine whether there are any outliers or large single contracts that cause utilization dollar

values to be at reported levels. These were preferred over the third measure—the number of firms, which is less exact and more sensitive to errors in measurement.

For instance, if a single firm, owned by a White male-owned firm, received 30 contracts for \$5 million, and ten African American-owned firms received one contract each worth \$100,000, measured by the number of firms, African American-owned firms would appear to be overutilized, and White male-owned firms underutilized. Using the number of contracts and the dollar value of contracts awarded, the aforementioned result would reverse (depending on relative availability).

M³ Consulting's position with regard to percentage estimates of utilization (based on dollar value of contracts and numbers of contracts), is that discrimination would be more likely to affect the dollars awarded to M/WBEs than the number of contracts awarded to M/WBEs or the number of M/WBEs utilized, particularly if there are stereotypical attitudes that M/WBEs cannot handle larger contracts, and the largest volume of contracts awarded are smaller contracts.

MDC: Numbers of Contracts, Dollar Value of Contracts or Numbers of Firms?

M³ Consulting analyzed contracting data produced from The Metropolitan District Commission's (MDC) contract logs and provided by the Procurement Services Unit. MDC procures goods and services valued at over \$10,000 primarily through contracts using formal competitive methods.

For informal purchases under \$10,000, MDC purchases goods and services using purchase orders and purchasing cards. As of July, 2008, per house bill HB5800, the informal procurement threshold was increased to under \$25,000.⁶⁷

Prime Contracting and Subcontracting

Because prime contractors, especially in construction and architecture and engineering, often subcontract work to other contractors and because the utilization of M/WBEs in the absence of a set-aside provision usually occurs at the subcontract level, assembling data on subcontract work is critical to utilization analysis.

⁶⁷ The house bill HB5800 amends the threshold in the MDC charter to allow small/informal purchases up to \$25,000.

In the area of construction contracting, the standard presentation of utilization data by M³ Consulting is to show prime and subcontractor utilization in separate tables. "Pure prime utilization" based on dollar value of contracts is defined here differently from "prime contract award value" due to the necessity to avoid double-counting of subcontract awards when examining subcontractor utilization. "Pure prime utilization" is correctly defined as the value of prime contracts *net of subcontract value*. This magnitude, when added to the value of subcontractor utilization, results in a correct measurement of "total" utilization by the M/WBE category.

DISPARITY ANALYSIS

The Notion of Disparity: The Concept and Its Measurement

A straightforward approach to establishing statistical evidence of disparity between the availability of M/WBEs and the utilization of M/WBEs by MDC is to compare the utilization percentage of M/WBEs with their availability percentage in the pool of total businesses in the relevant market area. M³ Consulting's specific approach, the "Disparity Ratio," consists of a ratio of the percentage of dollars spent with M/WBEs (utilization) to the percentage of those businesses in the market (availability).⁶⁸

Disparity ratios are calculated based on both actual and potential availability measures. MDC is then positioned to determine which disparity ratio, based on all available qualitative and quantitative findings, is most reliable for the MDC circumstances. M³ Consulting relies on actual availability for recommendations. The following definitions are utilized in the M³ Consulting ratio:

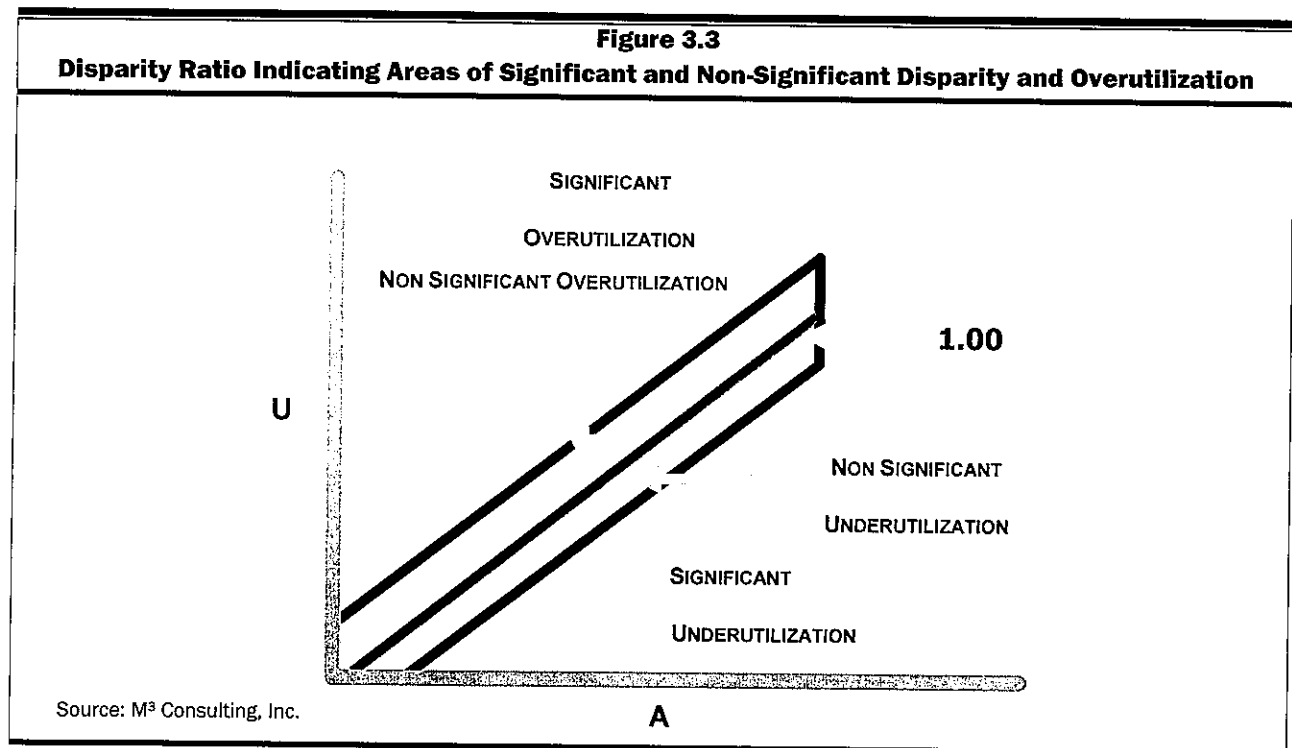
A	=	Availability proportion or percentage
U	=	Utilization proportion or percentage
D	=	Disparity ratio
N _w	=	Number of women-owned firms
N _m	=	Number of minority-owned firms
N _t	=	Total number of firms

⁶⁸See DJMA, *A Fact Finding Study Prepared for the New York Metropolitan Transit Authority* (January 1990).

Availability (A) is calculated by dividing the number of minority- and/or Women-owned firms by the total number of firms. Utilization (U) is calculated by dividing total dollars expended with minority- and women-owned firms by the total expenditures.⁶⁹

$$\begin{aligned} A_w &= N_w / N_t \\ A_m &= N_m / N_t \\ D &= U / A \end{aligned}$$

When $D=1$, there is no disparity, (i.e., utilization equals availability). As D approaches zero, the implication is that utilization is disproportionately low compared to availability. As D gets larger (and greater than one), utilization becomes disproportionately higher compared to availability. Statistical tests can be used to determine whether the difference between the actual value of D and 1 are statistically significant, (i.e., whether it can be stated with confidence that the difference in values is not due to chance (see Figure 3.3).



⁶⁹ Alternative utilization measures based on numbers of firms and numbers of contracts can be calculated in a similar fashion.

The statistical disparity ratio used in this study measures the difference between the proportion of available firms and the proportion of dollars those firms received. Therefore, as the proportion of contract dollars received becomes increasingly different than the proportion of available M/WBEs, an inference of discrimination can be made.

The concept of statistical significance as applied to disparity analysis is used to determine if the difference between the utilization and availability of M/WBEs could be attributed to chance. Significance testing often employs the t-distribution to measure the differences between the two proportions. The number of data points and the magnitude of the disparity affect the robustness of this test. The customary approach is to treat any variation greater than two standard deviations from what is expected as statistically significant.

The concept of statistical significance should not be confused with practical significance. According to Mansfield, even if there is a statistically significant difference between a sample value and a postulated value of a parameter, the difference may not really matter.⁷⁰ What this means is that disparities not statistically significant are not necessarily caused by chance. It also means that chance cannot be ruled out as a cause.

3.3 Data Sources Utilized For Statistical Analysis FOR MDC

In order to conduct the statistical analysis, M³ Consulting collected and analyzed data from MDC for the period covering FY 2005 through FY 2008. Following is a discussion of the data sources used. The data collection process and the issues that M³ Consulting encountered with these data sources are also discussed.

DATA SOURCES FOR AVAILABILITY

RWASSM Data Sources

Bidders

By bidding, firms demonstrate that they are “ready” and “willing”. Firms who bid undergo a review by MDC to determine whether they are “responsible,” which the District defines as a review of the

⁷⁰ Mansfield, Edwin, *Statistics for Business and Economics*, p. 322. Two standard deviations implies 95 percent confidence level which is the norm of the courts.

bidders previous record of performance and service and the ability of the bidder to provide satisfactory service on the pending bid.”⁷¹ Through this process, “ability” is determined. Non-responsible bidders are deemed unqualified or incapable of performing the work.

In order to determine the pool of bidders, M³ Consulting used the contract logs provided by MDC’s The Procurement Services Unit to identify contracts procured via formal methods, i.e. competitive sealed bids (CSB) and requests for proposals (RFP). Once identified, M³ Consulting collected bidder data from these contracts.

MDC maintains a comparison of bids for each formal bid let by the District. The comparison of bids is maintained both electronically and in hard copy format, which is included in the contract file. Additionally, the comparison of bids identifies each bidder on a given contract, as well as information as it relates to the bid amount, location of bidder, contract/RFP number and description of the contract/RFP. The compilation of each bid comparison sheet for the study period will form the basis for bidder availability. The average number of contracts per year under MDC formal competitive awards ranged from 15-25 contracts let through the RFP process and 60-110 contracts let through the CSB process, during the study period FY 2005-2008.

M³ Consulting identified missing information in bid data using various information sources provided by the MDC (i.e. vendor file, M/WBE Directories, etc.). The process of cross-matching various databases to fill in the missing data was conducted for both electronic and hard copy bidder data.

Vendors

Enrollment as a vendor is an additional criteria that may be used to measure availability. Companies included on the vendor list (“vendors”) are a broader measure of availability than bidders. While vendors meet the “ready” and “willing” test, they may not be capable of performing on all projects. Therefore, this is a less desired dataset to measure *RWA*SM availability. Capacity proxies could be established if MDC captured relevant data on its vendor application.

M³ Consulting compiled bid and book lists maintained by the MDC with the intent to identify firms who have come forward to request notification of contracting opportunities within the MDC. The bid and book lists were maintained within the Procurement Services Unit and could be supplemented by

⁷¹ MDC Procurement Manual 2003

project managers who had been contacted by firms with requests to have the firm name added to the notification list.

There were several issues encountered with the bid and book lists that impacted their reliability. The lists had not been purged recently. This may lead to including firms in the listing that were no longer viable businesses. Also, lack of object codes or a description of services prevented allocation of the listed firms into industry categories. The firms were classified into industry categories based on the project description for which the firm was listed.

The MDC bid and book lists do not maintain race/gender designation information, therefore M³ Consulting used a process of cross-matching between the bid and book lists and the Master M/WBE list.

Awardees

Awardees satisfy the same *RWASM* criteria as bidders. However, they constitute a smaller availability pool, since they only include those bidders that actually received an award. The awardees availability pool was determined using the contracts data. All firms awarded a contract during the study period were listed in either the purchasing contract log or bid comparison sheet and identified within the contract file itself, along with the contract award amount and procurement method used to procure the good or service provided.

M³ Consulting requested the removal of all contracts awarded to non-commercial vendors (i.e. non-profits, governmental entities and employees). MDC confirmed the exclusions, identified by M³ Consulting, for removal from the analysis.

Certified Firms

Because MDC does not have a certification process, the list of firms included on surrounding agency certification lists meet the *“ready, willing and able”* criteria, in that many capacity factors are reviewed in the certification process. The problem, however, lies in the fact that only M/WBEs are subject to the certification process. While the certification listing is one measure of M/WBE availability, there is no such equivalent listing of White male-owned firms. Using the certification list alone to measure availability, therefore, would bias the availability measurement.

Master M/WBE List

M³ Consulting created the Master M/WBE List for this study by combining the City of Hartford certification list with certification and business association lists maintained by the City of New Haven, Connecticut Department of Transportation (CTDOT); State of Connecticut Department of Administrative Services (DAS); United States Small Business Administration Central Contractor Registration (SBA CCR); and MDC Clean Water M/WBE Contractors.

Of the sources mentioned above, those which have directories of certified firms are listed below:

- City of Hartford
- City of New Haven
- State of Connecticut Department of Administrative Services (DAS)
- Connecticut Department of Transportation (CT DOT)

The following lists the information that was generated from the collected directories:

- *Company Name*
- *Company Address (and City, State, Zip Code)*
- *Contact Name (when available)*
- *Company Telephone and Fax Numbers*
- *Ethnicity and gender of ownership*
- *Procurement Type (when available)*
- *Relevant Market Location*
- *Certifying Agency (covering agencies that officially certify and those that allow self-certification)*

This Master M/WBE List, which includes both certified and non-certified M/WBEs, was then used to identify the race/gender of ownership of firms in other databases where such information was missing.

Potential Availability Data Sources

U.S. Census Bureau SMOBE/SWOB Data

The U.S. Census Bureau conducts a Survey of Business Owners (SBO) in a five-year cycle. The most recently published data are the results of the 2002 survey.

The SBO data includes listings of small- to mid-sized firms by NAICS codes and race/gender of ownership. The SMOBE and SWOB data, a subset of the SBO data, captures information on minority- and women-owned firms, in particular. As such, M/WBEs have an equal chance of being included within the database, as are White male-owned firms.

The census data on businesses is a better measure of 'potential availability' than actual availability since it counts all businesses in the area, but does not determine by any criteria whether they are willing or able to perform on a project.

Reed Construction Data

Reed Elsevier publishes construction activity data across the country and selected areas outside the United States. The data includes construction projects in the planning phase, with the following information:

- Owner of Project With Address
- Description of Project
- Value of Project
- Location of Project

If the project goes to fruition, the general contractor, subcontractors, and the architect and engineer that bid are listed with the projects. M³ Consulting collected four years of data covering construction activity captured by Reed Elsevier in bid activity for the State of Connecticut. In terms of the value of the work, the only information was the overall value of the project; the specific value of work performed by the subcontractors was not available.

The project description, prime contractor, subcontractor, bidder, and architect/engineer were all provided in Microsoft Excel spreadsheets, with the common link being the project ID. Since Reed does not track the race/gender of the contractors, such information had to be carried into the database by manual comparison of names to the Master M/WBE list.

DATA SOURCES FOR UTILIZATION

Utilization measures the distribution of dollars and contracts to commercial M/WBEs and White male-owned firms by MDC. The sources of data sought from MDC on M/WBE utilization for this report were contract awards, and subcontractor data, Accounts Payables (AP) and Purchase Orders (PO). The following are descriptions of utilization databases.

Contract Awards and Subcontractor Data

M³ Consulting gleaned MDC contract awards data from contract logs that were provided to M³ Consulting by MDC. The contract logs represent the universe of formal competitive contracts let by MDC. Any contract valued at \$10,000 or above is required to be procured using formal competitive procurement methods. The contract logs included information regarding the value of contract award and the awarded firm. Additional data fields contained vendor contact information, contract identification number and, in most cases, the purpose for the contract.

MDC attempted to capture subcontractor data from awarded vendors through the usage of Subcontractor Verification forms. The subcontractor verification form is located within each bid document. The awarded vendor is required to submit the completed subcontractor verification form to MDC detailing which subcontractors they intend on using for the project. The subcontractor utilization forms allow MDC to track subcontractor utilization at the district.

The subcontractor verification form provides information on:

- a. The name and location of the subcontractor,
- b. The subcontractor amount and its percent of the total contract value,
- c. The type of services to be performed by the subcontractor,
- d. If a subcontractor is a MBE or WBE, and
- e. Contact information for the subcontractor.

M³ Consulting used the subcontractor verification form as the identifier of subcontract activity for each contract using formal procurement methods. However, in most contracts identified with subcontractor activity, the subcontractor verification form was not completed. There was also limited subcontract payment information available. The available data came primarily through PMU contracts, which tracked subcontract award amounts and the amounts paid to the subcontractor.

Accounts Payable

Accounts Payable data provided by the MDC IT department, permitted utilization analysis based on actual payments to MDC's vendors. Payments were allocated into industry categories using the text description associated with payment records.

MDC does not track payments by commodity or NAICS codes, therefore, M³ Consulting defaulted to the text narrative within the dataset to determine the industry for each payment.

M³ Consulting sorted each payment in descending order and cumulatively classified 90 percent of the total expenditures by MDC for the study period FY 2005-FY 2008. All non-commercial vendors were identified and excluded from the analysis.

Purchase Orders

M³ Consulting employed similar processes with the PO data classification, as with AP data. The Purchase Orders were classified into industries using the PO text description and non-commercial vendors flagged and removed from the analysis. Further, the PO data included data elements related to unit price, quantity purchased, as well as any discounts regarding payment terms.

DATA SOURCES FOR CAPACITY

U.S. Census Bureau

Census SBO 2002 (SMOBE/SWOB was completed in 1997) included the number of employer and non-employer firms, sales, receipts, annual payroll and employment. Data aggregates are presented by gender, ethnicity, and race for the United States by 2002 North American Industry Classification System (NAICS), kind of business, states, metropolitan and micropolitan statistical areas, counties, places, and employment and receipts size.

Survey

M³ Consulting conducted a survey of firms on the vendor registry with MDC, with a focus on gathering capacity data that was to be used to adjust capacity figures of availability by race/ethnic and gender groupings. The process involved creating a questionnaire, sample design, data collection and coding, analysis and interpretation. Questions were designed with the specific purpose of collecting information about the availability of firms seeking to do business with MDC and the private sector and their capacity.

First, a sampling frame was defined based on vendors that registered with MDC. A sample drawn in this way enabled M³ Consulting to obtain information to make inferences about capacity of vendors in the population being analyzed. M³ Consulting relied primarily on the MDC bid and book lists and the Master M/WBE list to determine the random sample.

Furthermore, M³ Consulting used proportionate stratified sampling; the number of observations in the total sample is allocated among the strata in proportion to the relative number of elements in each stratum in the population.⁷²

A total of 750 surveys were mailed out. The response to the survey yielded 80 valid responses, constituting a 10.67 percent response rate⁷³. Details of the survey process are presented in Table 3.3 below. M³ Consulting utilized mail surveys as well as the Internet option for surveys to be completed and sent back. Follow-up calls were made to all non-respondents with a phone number to ensure an increased response rate.

The following tables show the efforts towards this end. There was a large percent of “undeliverables” and “non-responsives” that reduced the sample size.

⁷² A stratified sampling technique is a probability sampling technique that allows M³ Consulting to calculate the likelihood that any given population element will be included in a probability sample because the final sample elements are selected objectively by a specific process. Such sampling techniques allow for the assessment of any sampling error likely to occur because a sample, rather than a census (population) were employed to gather the data. A stratified sample is distinguished by two procedures: (a) the parent population is divided into mutually exclusive and exhaustive subsets and (b) a simple random sample of elements is chosen independently from each group or subset.

⁷³ It is typically expected that there will be 10 to 15 percent response on these types of survey studies.

Chapter III Statistical Methodology

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**Table 3.1: Survey Responses
The Metropolitan District Commission**

Mailing	Counts	Percent
Total Received	80	10.67
Total No Response	591	78.80
Total Undeliverable	79	10.53
Grand Total	750	100.00

Source: M³ Consulting survey

*Surveys returned to sender

**Table 3.2: Survey Received
The Metropolitan District Commission**

Received by	Counts	Percent
E-mail	15	18.75
Fax	7	8.75
Mail	58	72.50
Grand Total	80	100.00

Source: M³ Consulting survey

This statistical methodology and data collection discussion provides the foundation for the statistical chapters that follow.

Chapter 4: Statistical Analysis of M/WBE Availability

4.1 Introduction

This chapter presents data on M/WBE availability in MDC's relevant market. The conceptual issues in measuring availability are discussed in detail in Chapter III, Statistical Methodology. The accurate calculation of availability is critical in disparity analysis. "*Actual availability*," as defined by M³ Consulting for purposes of this study, provides the measure of the number of M/WBEs who are *ready, willing and able* to do business with MDC. An overcount or undercount of the pool of available M/WBEs can significantly alter findings of disparity. As such, M³ Consulting has developed an availability model that best captures those M/WBEs who are available to MDC.

The first section of this chapter discusses the determination of the relevant market for MDC. The second section presents the estimates of M/WBE availability for the five major industries: architecture & engineering; construction; professional services; non-professional services; and goods & supplies. The following availability measures are presented for each industry category:

Ready, Willing and Able Availability (RWASM)

- Level 1: Bidders
- Level 2: Bidders+Prime Awardees (Formal)+Subawardees (Formal)
- Level 3: Bidders+Prime Awardees(Formal)+Subawardees (Formal)+Prime Awardees (Informal)

Marketplace Availability

- Census Availability
- SBA PRO-Net

The chapter summarizes availability findings in the conclusions section.

4.2 RELEVANT MARKET

The relevant market establishes the geographical boundaries within which the analysis of M/WBE availability and utilization are performed. Based on the U.S. Supreme Court requirement that a M/WBE program covers only those groups that have actually been affected by discrimination within the public entity's jurisdiction,⁷⁴ most courts and disparity study consultants characterize the relevant market as the geographical area encompassing the majority of a public entity's commercial activity.

The Supreme Court's *Croson* decision did not provide specific guidance on the estimation of relevant market for the purposes of constructing a factual predicate study. Based upon lower court rulings, however, there are two requirements for determining the relevant market that have emerged:

1. the boundaries of the relevant market must be geographically close to that of the political jurisdiction enacting the program; and,
2. the relevant market must include the bulk of the commercial activity of the said political jurisdiction.

Consequently, many disparity studies of local areas have identified the metropolitan statistical area (MSA) as the relevant market.⁷⁵ Certain other entities, however, (e.g., Dallas and Los Angeles) have restricted the relevant market to those firms within their jurisdictional boundaries.

RELEVANT MARKET FOR MDC

In order to estimate availability, the marketplace in which MDC purchases from vendors needs to be defined. This enables a practical count of "available" firms and also facilitates policy implementation.

Based on the data provided for this study, two relevant markets were defined. One relevant market is the State of Connecticut; and the second is the four-state area including the States of Connecticut

⁷⁴ *Richmond v. Croson*, at 725.

⁷⁵ See, for example, *Concrete Works v. Denver*, 823 F Supp 821, at 836, n. 11; rev'd on other grounds, 36 F3d 1513 (10th Cir. 1994). Some earlier studies followed antitrust precedent in using an 85 percent benchmark as the relevant market. See, e.g., DJMA, *Disparity Study for the Orange County Consortium* (1993). The 2nd circuit has not provided any substantive guidance on the calculation of the relevant market for disparity studies.

Chapter IV

Statistical Analysis of M/WBE Availability

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(CT), Massachusetts (MA), New York (NY) and New Jersey (NJ). The relevant market for each industry category is as follows in Table 4.1:

Table 4.1: Relevant Market for Industry Categories		
Industry Category	Relevant Market	
	State of Connecticut	Four-State Area*
Architecture & Engineering	√	
Construction		√
Professional Services	√	
Non-Professional Services		√
Goods & Supplies		√

Source: M³ Consulting

*Four-State area includes: Connecticut (CT), Massachusetts (MA), New York (NY) and New Jersey (NJ).

Table 4.2 is a summary table, by location, representing the percentage of bidders, vendors and awardees for each industry category by the relevant market determinations outlined above. In addition, in Table 4.3, the percentage of contract dollars are presented that shows where the bulk of dollars awarded are concentrated. More detailed relevant market tables are provided in the Appendix.

Based on the percentage of location of firms (as shown in Table 4.2), the relevant market points to the four-state area of CT, MA, NY and NJ. Based on the bulk of contract dollars awarded (Table 4.3), however, the State of CT is clearly the relevant market for A&E and professional services and the four-state area for construction and goods & supplies.

For non-professional services the relevant market is the broad US market based on the bulk of the dollars awarded or paid (Table 4.3). Since the jurisdiction of the agency to influence or enforce policies with regard to procurement decisions, however, does not effectively extend beyond the state of CT or, at most, beyond the four-state area, for programmatic reasons, we determine the relevant market to be the four-state area for non-professional services as well. Furthermore, since Table 4.2 points to the location of the bidders/vendors and awardees to be largely (over 70 percent approximately) the four-state area, we present the data for non-professional services as the four-state area. The overall market results are presented in Appendix A.

Chapter IV

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Table 4.2: Summary Table Based on Location
By Industry Category; by All, State of Connecticut or Four-State Area, and Contract Type;
Relevant Market; The Metropolitan District Commission

Procurement Type	Bidders			Awardees			Vendors		
	All	CT	States of CT, MA, NY, NJ	All	CT	CT, MA, NY, NJ	All	CT	CT, MA, NY, NJ
	#	%	%	#	%	%	#	%	%
Architecture & Engineering	99	59.60	74.75	135	66.67	89.63	67	73.13	85.07
Construction	188	67.02	89.36	350	73.71	93.14	527	80.83	93.36
Professional Services	132	47.73	62.88	466	62.45	84.12	299	60.54	72.91
Non-Professional Services	85	69.41	88.24	482	68.05	89.83	476	78.15	86.55
Goods & Supplies	317	55.52	74.45	820	61.59	85.49	1348	59.42	77.97

Source: MDC Contract Bidders, Contracts bidder 05-07, PMU awardees-no Bidders, RFP Bidders, RFP/RFQ, Winning bidders, PMU Sub Awardees and Sub Awardees; Bid lists compiled by M3 Consulting; M3 Consulting.

Table 4.3: Summary Table based on Pure Prime + Sub Dollars
By Industry Category; Dollar Value of Contract Awards
All Procurement Types; State of Connecticut
The Metropolitan District Commission, FY 2005-FY 2008

Procurement Type	State of CT		States of CT, MA, NY, NJ		All Zips
	\$	%	\$	%	\$
Architecture & Engineering	33,638,133	85.18	36,266,012	91.83	39,490,700
Construction	66,300,055	49.58	113,073,248	84.56	133,714,362
Goods	15,300,322	49.17	21,985,509	70.66	31,116,356
Non-Professional	2,446,711	32.49	2,805,605	37.26	7,529,626
Professional	8,383,411	75.70	9,577,270	82.41	11,074,483
Total	126,068,632	56.55	183,707,644	82.41	222,925,527

Source: The MDC Purchasing Department and The Program Management Unit (PMU); M3 Consulting

4.3 Availability

The availability measure is often in dispute and critical to defining disparity. One must be careful not to include all businesses as *ready, willing and able*, as such a calculation could produce a very broad pool of available firms, including those who are not interested or able to provide goods or services purchased by MDC. Similarly, a very narrowly tailored measure of availability may exclude some potential bidders, by falsely classifying them as unable to perform the requirements of contracts.⁷⁶

MEASURING AVAILABILITY FOR MDC RWASM AVAILABILITY

Based on the discussion above, M³ Consulting presents a model of availability, as discussed in Chapter III, Figure 3.2 and adjusted here to available data from MDC in Figure 4.2. The Availability Model has three measures of availability that encompass broader measures of availability. The first gradient focuses on the narrower Ready, Willing and Able (RWASM) availability model discussed in Chapter III. A broader measure is presented in the second gradient wherein availability also encompasses firms that have done business with other public sector agencies located in the same relevant market. The broadest measure in gradient three includes the Census of firms in the relevant market. Due to geographic presence of the firms, they may bid for future work and hence could be considered “available.”

⁷⁶ U. S. Commission on Civil Rights, “Disparity Studies as Evidence of Discrimination in Federal Contracting,” A Briefing Report, May 2006. (Comments by expert Dr. Ian Ayers, William K. Townsend Professor, Yale Law School).

Figure 4.1: M³ Consulting Availability Model for MDC

MDC RWASM Availability

1. Prime and sub-bidders by contract category for each year of study period

2. Prime bidders, prime awardees (formal), subawardees and sub-bidders by contract category for fewer years

3. Prime bidders, sub-awardees, prime awardees (formal and informal purchases) for each year of study period

MDC Public Sector Availability

4. Agency RWASM measure+ similar public entity prime and sub-bidders

5. Agency RWASM measure + similar public entity prime and sub awardees

6. Agency RWASM measure + similar public entity prime, sub awardees and vendors +
Master M/WBEs List

MDC Marketplace Availability

7. Census

8. SBA PRO-Net

9. Reed Construction Data

Source: M³ Consulting

*Reed tables are shown in the Chapter X: Private Sector Analysis

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RWASSM Availability

Measuring availability is based on completeness and robustness of data maintained by MDC. Based on the *RWASSM* measure, typically Level 1 which includes bidders and subbidders is most robust and hence the most preferred measure. Bidders undergo a rigorous testing of readiness, willingness and capacity, as they are put scrutinized by MDC to determine their qualifications and capacity. MDC, however, does not maintain data on subbidders, therefore, this constrains on M³ Consulting's ability being able to perform the analysis at Level 1.

Level 2 is a more complete data set as it relates to bidders and awardees, as it includes formal prime awardees.

Level 3 includes prime bidders, prime awardees (both formal and informal) and sub awardees in measuring availability for FY 2005- 2008. Based on the *RWASSM* Availability Model, the availability analysis at Level 3 most accurately reflects those firms that are available to provide goods and services to MDC at all contracting levels and based on all MDC procurement methods.

Total RWASSM Availability

As discussed above, we define availability at Level 3 for the FY 2005-2008 period that includes prime bidders, sub awardees and prime awardees to comprise this availability pool. However, we present Levels 1-3 independently in a cumulative fashion as three measures of availability, with Level 3 being a combined pool of discrete available firms across these measures. The overall available firms are presented below followed by availability by procurement type.

Total RWASSM Availability

Level I: Bidders

RWASSM availability measures based on bidders is presented in Table 4.3 for the State of Connecticut (CT) and the four-state area, CT, MA, NJ and NY. For the FY 2005-2008 period, there were 414 bidders from the State and 546 from the four-state area. Over 76 percent of the White male bidders were from within the State of CT. MBEs and WBEs from within the State comprise 9.42 percent and 4.83 percent of bidders respectively. In the four-state area, White male bidder availability increased

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to 81.32 percent, while MBE and WBE availability both declined to 7.69 percent and 3.85 percent respectively.

Table 4.4: RWASM Availability by Relevant Market				
Level 1: Bidders*				
All Procurement Types- Unique				
The Metropolitan District Commission				
Ethnicity	State of CT		States of CT, MA, NY, NJ	
	#	%	#	%
White male	316	76.33	444	81.32
Asian American	5	1.21	7	1.28
African American	18	4.35	18	3.30
Hispanic American	12	2.90	13	2.38
Native American	1	0.24	1	0.18
Non-Designated MBE	3	0.72	3	0.55
MBE	39	9.42	42	7.69
WBE	20	4.83	21	3.85
Non-Designated M/WBE	1	0.24	1	0.18
M/WBE	60	14.49	64	11.72
SBE	38	9.18	38	6.96
TOTAL	414	100.00	546	100.00

Source: MDC Contract Bidders, Contracts Bidder FY2005-2007, PMU Awardees - No Bidders, RFP Bidders, and RFP/RFQ; M³ Consulting

*MDC sub-bidders are not available, therefore not calculated at Level 1.

Note: Total includes six bidders with unknown procurement type.

Level 2: Bidders + Prime Awardees (formal) + Subawardees (formal)

RWASM availability measures based on Level 2 availability is presented in Table 4.4. For the State of CT, there are 462 firms available, while within the four-state area, the number of firms available rises to 609. For the study period, there were 65 (14.07 percent) MBEs and 39 (8.44 percent) WBEs from within the State of CT; and, 71 (11.66 percent) MBEs and 48 (7.88 percent) WBEs from the four-state area.

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Table 4.5: RWASM Availability by Relevant Market
Level 2: Bidders + Prime Awardees (formal) + Subawardees (formal)
All Procurement Types- Unique
The Metropolitan District Commission

Ethnicity	State of CT		States of CT, MA, NY, NJ	
	#	%	#	%
White male	319	69.05	451	74.06
Asian American	6	1.30	8	1.31
African American	33	7.14	34	5.58
Hispanic American	19	4.11	21	3.45
Native American	1	0.22	1	0.16
Non-designated MBE	6	1.30	7	1.15
MBE	65	14.07	71	11.66
WBE	39	8.44	48	7.88
Non-designated M/WBE	1	0.22	1	0.16
M/WBE	105	22.73	120	19.70
SBE	38	8.23	38	6.24
Total	462 ¹	100.00	609 ²	100.00

Source: MDC Contract Bidders, Contracts bidder 05-07, PMU awardees-no Bidders, RFP Bidders, RFP/RFQ, Winning bidders, PMU Sub Awardees and Sub Awardees; M³ Consulting.

Note: ¹Total includes six bidders with unknown procurement type. ²Total includes seven bidders with unknown procurement type.

Level 3: Bidders + Prime Awardees (formal) + Subawardees (formal)/Prime Awardees (informal)

RWASM availability measures at Level 3 are based on bidders, prime awardees (formal and informal purchases), and subcontractor awardees. This availability pool consists of 989 firms within the State of CT and 1,337 firms in the four-state area. Of the firms, 129 firms are M/WBEs that account for 13.04 percent of all firms in the relevant market (State of CT). WBEs account for 5.36 percent of all firms. MBEs are 7.38 percent or less of the pool.

Expanding the relevant market to the four-state area of CT, MA, NY and NJ will results in 144 M/WBEs. Of the total M/WBEs, 5.91 percent and 4.64 percent are MBEs and WBEs respectively. (Table 4.5)

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Table 4.6: *RWASSM* Availability by Relevant Market
Level 3: Bidders + Prime Awardees (formal) + Subawardees (formal) + Prime Awardees (informal)
All Procurement Types - Unique
The Metropolitan District Commission

Ethnicity	State of CT		States of CT, MA, NY, NJ	
	#	%	#	%
White male	796	80.49	1129	84.44
Asian American	7	0.71	8	0.60
African American	37	3.74	38	2.84
Hispanic American	22	2.22	25	1.87
Native American	1	0.10	1	0.07
Non-designated MBEs	6	0.61	7	0.52
MBE	73	7.38	79	5.91
WBE	53	5.36	62	4.64
Non-designated M/WBEs	3	0.30	3	0.22
M/WBE	129	13.04	144	10.77
SBE	64	6.47	64	4.79
Total	989 ¹	100.00	1337 ²	100.00

Source: MDC Contract Bidders, Contracts bidder 05-07, PMU awardees-no Bidders, RFP Bidders, RFP/RFQ, Winning bidders, PMU Sub Awardees, Sub Awardees, 2008 Data and PO 2005-2007 INV; M³ Consulting.

Note: ¹Total includes six bidders with unknown procurement type. ²Total includes seven bidders with unknown procurement type.

MARKETPLACE AVAILABILITY

As a benchmark to *RWASSM* in the relevant market and the broadest measure of availability, we present marketplace sources of availability. The limitations of these sources are that firms in these lists do not reflect those that may have necessarily expressed interest in bidding with MDC.

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CENSUS AVAILABILITY

The Census data contains firms that may strictly do business in the private sector or may not sell the unique goods and services procured by MDC. Because these distinctions are not made in the Census data pool, M³ Consulting cannot determine those firms in the Census data who are *ready, willing and able* to do business with MDC. The difference between *RWASM* and Census data, however, gives MDC an indication that there are a number of firms who may be available to MDC, but may not do business with MDC for a multitude of reasons. Only through surveying and other extensive outreach techniques can MDC determine which firms in the Census pool are actually available to do business with the MDC.⁷⁷

According to the Survey of Minority-Owned Business Enterprises, there were over 68,572 firms with paid employees within the State of CT. Of these firms, 3,340 (4.87 percent) are MBEs and 8,462 (12.34 percent) are WBEs. According to the Census, Asian American- and Hispanic American-owned firms constituted the largest minority groups.

Table 4.7: Count of Firms with Paid Employees		
State of Connecticut		
Census All Procurement Types		
FY 2002		
Ethnicity	#	%
White Male	56,770	82.79
African American	341	0.50
Hispanic American	1,033	1.51
Asian American	1,966	2.87
American Indian	0	0.00
MBE	3,340	4.87
WBE*	8,462	12.34
M/WBE	11,802	17.21
Total	68,572	100.00

Source: 2002 Economic Census Minority and Women Owned Business – State of Connecticut

* Removes double counting of Minority females. The ratio of White females to Total Women was 88.39 percent.

⁷⁷ It is important to note that the Census numbers are computed from a general survey. As such, the specific firms surveyed are not available to MDC. MDC would have to conduct its own exhaustive data collection effort of all firms in the MDC relevant market in order to survey those firms to determine which firms are actually available.

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TOTAL SBA PRO-NET AVAILABILITY

The U.S. Small Business Administration (SBA) maintains a list of small firms that have registered to do business with federal agencies via the Central Contractor's Registry (CCR). The data does not categorize the firms in the exact context used in this disparity study. The firms are categorized in the business lines of manufacturing, construction, and services. In M³ Consulting's disparity study methodology, manufacturing is classified as goods/commodities or general procurement, and services are classified under the broad category of professional and non-professional services.

Table 4.7 provides a summary of the SBA PRO-Net database as it relates to this study for MDC. The geographic area covers the State of CT. There were a total of 939 firms listed in the database, with 191 WBEs (20.34 percent) and 148 MBEs (15.76 percent).

Table 4.8: SBA PRO-Net CCR Total Count of Unique Firms State of Connecticut		
Ethnicity	#	%
White Male	600	63.90
Minority	143	15.23
Native American	5	0.53
MBE	148	15.76
WBE	191	20.34
M/WBE	339	36.10
Total	939	100.00

Source: SBA ProNet, Central Contractor Registration (CCR) 2008

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RWASM AVAILABILITY IN ARCHITECTURE & ENGINEERING

Level 1: Bidders

In A&E, there are 53 bidders in the State of CT. The 10 MBEs and four WBEs within the State represent 18.87 percent and 7.55 percent of the bidders in A&E. (Table 4.8)

Table 4.9: RWASM Availability by Relevant Market		
Level 1: Bidders		
Architecture & Engineering		
The Metropolitan District Commission		
Ethnicity	State of CT	
	#	%
White male	37	69.81
Asian American	3	5.66
African American	4	7.55
Hispanic American	2	3.77
Native American	0	0.00
Non-designated MBEs	1	1.89
MBE	10	18.87
WBE	4	7.55
Non-designated M/WBEs	1	1.89
M/WBE	15	28.30
SBE	1	1.89
Total	53	100.00

Source: MDC Contract Bidders, Contracts bidder 05-07, PMU awardees-no bidders, RFP bidders and RFP/RFQ; M³ Consulting.

Level 2: Bidders + Prime Awardees (formal) + Subawardees (formal)

As shown in Table 4.9, by adding awardee on formal contracts to the bidders list, the total available A&E firms within the State of CT increases to 60, with 13 MBEs and seven WBEs. The MBEs include four Asian American-owned, four Hispanic American-owned, four African American-owned and one non-designated M/WBE-owned firm. In percentage terms, 21.67 percent of A&E firms available are MBEs and 11.67 percent are WBEs from within the State.

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Table 4.10: RWASM Availability by Relevant Market Level 2: Bidders + Prime Awardees (formal) + Subawardees (formal) Architecture & Engineering The Metropolitan District Commission		
Ethnicity	State of CT	
	#	%
White male	38	63.33
Asian American	4	6.67
African American	4	6.67
Hispanic American	4	6.67
Native American		0.00
Non-designated MBE	1	1.67
MBE	13	21.67
WBE	7	11.67
Non-designated M/WBE	1	1.67
M/WBE	21	35.00
SBE	1	1.67
Total	60	100.00

Source: MDC Contract Bidders, Contracts bidder 05-07, PMU awardees-no Bidders, RFP Bidders, RFP/RFQ, Winning bidders, PMU Sub Awardees and Sub Awardees; M³ Consulting.

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Level 3: Bidders + Prime Awardees (formal) + Subawardees (formal) + Prime Awardees (informal)

When all bidders and awardees (prime and sub) are included, there are 14 MBEs and eight WBEs that account for 11.38 percent and 6.50 percent of the total 123 available firms respectively within the State of CT.

Table 4.11: RWASM Availability by Relevant Market		
Level 3: Bidders + Prime Awardees (formal) + Subawardees (formal) + Prime Awardees (Informal)		
Architecture & Engineering		
The Metropolitan District Commission		
Ethnicity	State of CT	
	#	%
White male	95	77.24
Asian American	4	3.25
African American	4	3.25
Hispanic American	5	4.07
Native American	0	0.00
Non-designated MBEs	1	0.81
MBE	14	11.38
WBE	8	6.50
Non-designated M/WBEs	1	0.81
M/WBE	23	18.70
SBE	5	4.07
Total	123	100.00

Source: MDC Contract Bidders, Contracts bidder 05-07, PMU awardees-no Bidders, RFP Bidders, RFP/RFQ, Winning bidders, PMU Sub Awardees, Sub Awardees, 2008 Data and PO 2005-2007 INV; M³ Consulting.

MARKETPLACE AVAILABILITY IN ARCHITECTURE & ENGINEERING

Census and SBA PRO-net do not provide a listing for A&E separately and hence a market place comparison for this industry is not possible.

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RWASM AVAILABILITY IN CONSTRUCTION

Level 1: Bidders

Table 4.11 presents RWASM availability for construction based on bidders. Within the four-state area, of the total of 160 construction firms identified as ready, willing and able to do business with MDC, 25 were M/WBEs representing 15.36 percent of total firms. Of these, African American- and Hispanic American-owned firms each represent six firms and 3.75 percent. Other MBEs included one Native American-owned firm and one non-designated MBE. Ten WBEs represented 6.25 percent of firms, respectively.

Table 4.12: RWASM Availability by Relevant Market		
Level 1: Bidders		
Construction		
The Metropolitan District Commission		
Ethnicity	States of CT, MA, NY, NJ	
	#	%
White male	118	73.75
Asian American	1	0.63
African American	6	3.75
Hispanic American	6	3.75
Native American	1	0.63
Non-Designated MBE	1	0.63
MBE	15	9.38
WBE	10	6.25
Non-Designated M/WBE	0	0.00
M/WBE	25	15.63
SBE	17	10.63
TOTAL	160	100.00

Source: MDC Contract Bidders, Contracts Bidder FY2005-2007, PMU Awardees- No Bidders, RFP Bidders, RFP/RFQ and RFP/RFQ; M³ Consulting

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Level 2: Bidders + Prime Awardees (formal) + Subawardees (formal)

As shown in Table 4.12, a total of 208 construction firms are available in the four-state area. Forty-two MBEs represent 20.19 percent of available firms and 28 WBE construction firms represent 13.46 percent.

Table 4.13: RWASM Availability by Relevant Market Level 2: Bidders + Prime Awardees (formal) + Subawardees (formal) Construction The Metropolitan District Commission		
Ethnicity	States of CT, MA, NY, NJ	
	#	%
White male	121	58.17
Asian American	1	0.48
African American	22	10.58
Hispanic American	13	6.25
Native American	1	0.48
Non-designated MBE	5	2.40
MBE	42	20.19
WBE	28	13.46
Non-designated M/WBE	0	0.00
M/WBE	70	33.65
SBE	17	8.17
Total	208	100.00

Source: MDC Contract Bidders, Contracts bidder 05-07, PMU awardees-no Bidders, RFP Bidders, RFP/RFQ, Winning bidders, PMU Sub Awardees and Sub Awardees; M³ Consulting.

Level 3: Bidders + Prime Awardees (formal) + Subawardees (formal) + Prime Awardees (informal)

When all bidders and awardees, both formal and informal, are counted, there are a total of 407 construction firms in the four-state area of CT, MA, NY and NJ. Eighty M/WBEs represent 19.66 percent. As shown in Table 4.13, there are 48 MBEs and 32 WBEs, which includes two Asian American-, 23 African American-, 17 Hispanic American-, and one Native American-owned firm. There are five non-designated MBEs.

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**Table 4.14: RWASSM Availability by Relevant Market
Level 3: Bidders + Prime Awardees (formal) + Subawardees (formal)
+ Prime Awardees (Informal)
Construction
The Metropolitan District Commission**

Ethnicity	States of CT, MA, NY, NJ	
	#	%
White male	300	73.71
Asian American	2	0.49
African American	23	5.65
Hispanic American	17	4.18
Native American	1	0.25
Non-designated MBEs	5	1.23
MBE	48	11.79
WBE	32	7.86
Non-designated M/WBEs	0	0.00
M/WBE	80	19.66
SBE	27	6.63
Total	407	100.00

Source: MDC Contract Bidders, Contracts bidder 05-07, PMU awardees-no Bidders, RFP Bidders, RFP/RFQ, Winning bidders, PMU Sub Awardees, Sub Awardees, 2008 Data and PO 2005-2007 INV; M³ Consulting.

MARKETPLACE AVAILABILITY IN CONSTRUCTION

Census Availability in Construction

Census availability reports 9,609 construction firms in the relevant market, with 878 M/WBEs that represent 9.14 percent of the total. A large number of these are WBEs at 6.23 percent of the total firms in construction. Among the minority groups, Hispanic American-owned firms represent the largest number of construction firms in the area.

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**Table 4.15: Count of Firms with Paid Employees
State of Connecticut
Census Construction
FY 2002**

Ethnicity	#	%
White Male	8,731	90.86
African American	93	0.97
Hispanic American	161	1.68
Asian American	26	0.27
American Indian	0	0.00
MBE	280	2.91
WBE*	598	6.23
M/WBE	878	9.14
Total	9,609	100.00

Source: 2002 Economic Census Minority and Women Owned Business – State of Connecticut

* Removes double counting of Minority females. The ratio of White females to Total Women was 88.39 percent.

SBA PRO-Net Availability in Construction

Firms that are registered with SBA for federal contracting in construction constitute 51.56 percent M/WBEs. This may be due to either undercounting of White male-owned firms, or only very few large public sector firms bidding with the federal government.

**Table 4.16: SBA PRO-Net CCR
Construction
Count of Unique Firms
State of Connecticut**

Ethnicity	#	%
White Male	31	48.44
Minority	16	25.00
Native American	1	1.56
MBE	17	26.56
WBE	16	25.00
M/WBE	33	51.56
Total	64	100.00

Source: SBA ProNet, Central Contractor Registration (CCR) 2008

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RWASM AVAILABILITY IN PROFESSIONAL SERVICES

Level 1: Bidders

A total of 63 firms are available for professional services within the State of CT. Of these firms, except for two African American-owned firms, one Hispanic American-owned firm, and two WBEs, all are White male-owned firms.

Table 4.17: RWASM Availability by Relevant Market		
Level 1: Bidders		
Professional Services		
The Metropolitan District Commission		
Ethnicity	State of CT	
	#	%
White male	57	90.48
Asian American	0	0.00
African American	2	3.17
Hispanic American	1	1.59
Native American	0	0.00
Non-Designated MBE	0	0.00
MBE	3	4.76
WBE	2	3.17
Non-Designated M/WBE	0	0.00
M/WBE	5	7.94
SBE	1	1.59
TOTAL	63	100.00

Source: MDC Contract Bidders, Contracts Bidder FY2005-2007, PMU Awardees- No Bidders, RFP Bidders, RFP/RFQ and RFP/RFQ; M³ Consulting

Level 2: Bidders + Prime Awardees (formal) + Subawardees (formal)

Including awardees increases the available professional firms within the State of CT to 67, which includes two African American-owned firms, two Hispanic American-owned firms, one non-designated MBE and two additional WBEs.

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Table 4.18: <i>RWASM</i> Availability by Relevant Market		
Level 2: Bidders + Prime Awardees (formal) + Subawardees (formal)		
Professional Services		
The Metropolitan District Commission		
Ethnicity	State of CT	
	#	%
White male	57	85.07
Asian American	0	0.00
African American	2	2.99
Hispanic American	2	2.99
Native American	0	0.00
Non-designated MBE	1	1.49
MBE	5	7.46
WBE	4	5.97
Non-designated M/WBE	0	0.00
M/WBE	9	13.43
SBE	1	1.49
Total	67	100.00

Source: MDC Contract Bidders, Contracts bidder 05-07, PMU awardees-no Bidders, RFP Bidders, RFP/RFQ, Winning bidders, PMU Sub Awardees and Sub Awardees; M³ Consulting.

Level 3: Bidders + Prime Awardees (formal) + Subawardees (formal) + Prime Awardees (informal)

As shown in Table 4.18, when prime awardees in informal purchases are included in the pool of professional service firms, the available firms in this procurement type increases to 327 firms, with 16 MBEs and 10 WBEs, representing 4.89 percent and 3.06 percent respectively.

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Table 4.19: RWASSM Availability by Relevant Market Level 3: Bidders + Prime Awardees (formal) + Subawardees (formal) + Prime Awardees (informal) Professional Services The Metropolitan District Commission		
Ethnicity	State of CT	
	#	%
White male	280	85.63
Asian American	2	0.61
African American	7	2.14
Hispanic American	6	1.83
Native American	0	0.00
Non-designated MBE	1	0.31
MBE	16	4.89
WBE	10	3.06
Non-designated M/WBE	1	0.31
M/WBE	27	8.26
SBE	20	6.12
Total	327	100.00

Source: MDC Contract Bidders, Contracts bidder 05-07, PMU awardees-no Bidders, RFP Bidders, RFP/RFQ, Winning bidders, PMU Sub Awardees, Sub Awardees, 2008 Data and PO 2005-2007 INV; M³ Consulting.

MARKETPLACE AVAILABILITY IN PROFESSIONAL SERVICES

Census Availability in Professional Services

Census availability reports 25,552 professional service firms in the relevant market with 4,641 M/WBEs that represent 18.16 percent of the total. Among the minority groups, Hispanic American-, Asian American- and African American-owned firms each represent only 2 percent or less of the total. WBEs largely make-up the M/WBEs at 14.28 percent of the total.

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**Table 4.20: Count of Firms with Paid Employees
State of Connecticut
Census Professional Services
FY 2002**

Ethnicity	#	%
White Male	20,911	81.84
African American	183	0.72
Hispanic American	282	1.10
Asian American	527	2.06
American Indian	0	0.00
MBE	992	3.88
WBE*	3,649	14.28
M/WBE	4,641	18.16
Total	25,552	100.00

Source: 2002 Economic Census Minority and Women Owned Business – State of Connecticut

* Removes double counting of Minority females. The ratio of White females to Total Women was 88.39 percent.

SBA PRO-Net Availability in Professional Services

Firms that are registered with SBA for federal contracting in professional services constitute service firms and R&D firms. Overall, they constitute 40.15 percent M/WBEs. R&D only includes 27.16 percent M/WBEs, whereas service firms have 45.6 percent M/WBEs. WBEs are also slightly higher than MBEs in percentage of firms available, especially in the services area. SBA PRO-Net does not distinguish between professional and non-professional services, which may account for the higher percentage of firms available for M/WBEs in services.

**Table 4.21: SBA PRO-Net CCR
Services and R&D
Count of Unique Firms
State of Connecticut**

Ethnicity	Services		R&D		Services + R&D	
	#	%	#	%	#	%
White Male	210	54.40	118	72.84	328	59.85
Minority	74	19.17	26	16.05	100	18.25
Native American	3	0.78	0	0.00	3	0.55
MBE	77	19.95	26	16.05	103	18.80
WBE	99	25.65	18	11.11	117	21.35
M/WBE	176	45.60	44	27.16	220	40.15
Total	386	100.00	162	100.00	548	100.00

Source: SBA ProNet, Central Contractor Registration (CCR) 2008

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RWASM AVAILABILITY IN NON-PROFESSIONAL SERVICES

Level 1: Bidders

In the four-state area, a total of 74 firms are available for non-professional services contracting. This pool included ten (13.51 percent) M/WBEs. (Table 4.21)

Table 4.22: RWASM Availability by Relevant Market		
Level 1: Bidders		
Non-Professional Services		
The Metropolitan District Commission		
Ethnicity	States of CT, MA, NY, NJ	
	#	%
White male	58	78.38
Asian American	2	2.70
African American	4	5.41
Hispanic American	3	4.05
Native American	0	0.00
Non-Designated MBE	0	0.00
MBE	9	12.16
WBE	1	1.35
Non-Designated M/WBE	0	0.00
M/WBE	10	13.51
SBE	6	8.11
TOTAL	74	100.00

Source: MDC Contract Bidders, Contracts Bidder FY2005-2007, PMU Awardees- No Bidders, RFP Bidders, RFP/RFQ and RFP/RFQ; M³ Consulting

Level 2: Bidders + Prime Awardees (formal) + Subawardees (formal)

If awardees are included in the pool of available firms, the number of non-professional service firms increase to 79 within the four-state area. Fifteen M/WBEs represents 18.99 percent, which includes 11 MBEs and four WBEs.

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Table 4.23: RWASM Availability by Relevant Market		
Level 2: Bidders + Prime Awardees (formal) + Subawardees (formal)		
Non-professional Services		
The Metropolitan District Commission		
Ethnicity	States of CT, MA, NY, NJ	
	#	%
White male	58	73.42
Asian American	2	2.53
African American	5	6.33
Hispanic American	3	3.80
Native American	0	0.00
Non-designated MBE	1	1.27
MBE	11	13.92
WBE	4	5.06
Non-designated M/WBE	0	0.00
M/WBE	15	18.99
SBE	6	7.59
Total	79	100.00

Source: MDC Contract Bidders, Contracts bidder 05-07, PMU awardees-no Bidders, RFP Bidders, RFP/RFQ, Winning bidders, PMU Sub Awardees and Sub Awardees; M³ Consulting.

Level 3: Bidders + Prime Awardees (formal) + Subawardees (formal) + Prime Awardees (informal)

As shown in Table 4.23, a total of 464 firms met M³ Consulting's RWASM criteria for actual availability for non-professional services contracting. This pool included 31 M/WBEs, representing 6.68 percent of total firms. WBEs accounted for the largest representation of M/WBEs with 14 firms representing 3.02 percent of the non-professional services availability. Six Hispanic American-owned, two Asian American-owned, and eight African American-owned firms, plus one non-designated MBE also make up the pool of M/WBE non-professional firms within the four-state area.

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Table 4.24: RWASM Availability by Relevant Market Level 3: Bidders + Prime Awardees (formal) + Subawardees (formal) + Prime Awardees (informal) Non-professional Services The Metropolitan District Commission		
Ethnicity	States of CT, MA, NY, NJ	
	#	%
White male	407	87.72
Asian American	2	0.43
African American	8	1.72
Hispanic American	6	1.29
Native American	0	0.00
Non-designated MBE	1	0.22
MBE	17	3.66
WBE	14	3.02
Non-designated M/WBE	0	0.00
M/WBE	31	6.68
SBE	26	5.60
Total	464	100.00

Source: MDC Contract Bidders, Contracts bidder 05-07, PMU awardees-no Bidders, RFP Bidders, RFP/RFQ, Winning bidders, PMU Sub Awardees, Sub Awardees, 2008 Data and PO 2005-2007 INV; M³ Consulting.

MARKETPLACE AVAILABILITY IN NON-PROFESSIONAL SERVICES

Census Availability in Non-Professional Services

Census availability reports 13,811 non-professional service firms in the relevant market with 2,727 or 19.74 percent M/WBEs. Among the minority groups, Asian American-owned firms represent the largest number of non-professional service firms in the area at 4.36 percent of the total. WBEs represent 12.60 percent of the total number of non-professional service firms based on Census counts.

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Table 4.25: Count of Firms with Paid Employees
State of Connecticut
Census Non-professional Services
FY 2002

Ethnicity	#	%
White Male	11,084	80.26
African American	65	0.47
Hispanic American	320	2.32
Asian American	602	4.36
American Indian	0	0.00
MBE	987	7.15
WBE*	1,740	12.60
M/WBE	2,727	19.74
Total	13,811	100.00

Source: 2002 Economic Census Minority and Women Owned Business - State of Connecticut

* Removes double counting of Minority females. The ratio of White females to Total Women was 88.39 percent.

SBA PRO-Net Availability in Non-Professional Services

SBA PRO-Net does not separate professional and non-professional services firms. The earlier discussion of service firms under SBA PRO-Net includes firms that may be non-professional service firms. No separate discussion is therefore warranted under this section.

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RWASSM AVAILABILITY IN GOODS & SUPPLIES

Level 1: Bidders Availability

In goods & supplies, as shown in Table 4.25, M/WBE availability includes only 17 firms within the four-state area, representing 7.20 percent of the total firms in goods & supplies. A total of 236 firms are available in this procurement type within the four-state area.

Table 4.26: RWASSM Availability by Relevant Market		
Level 1: Bidders		
Goods & Supplies		
The Metropolitan District Commission		
Ethnicity	States of CT, MA, NY, NJ	
	#	%
White male	199	84.32
Asian American	2	0.85
African American	5	2.12
Hispanic American	1	0.42
Native American		0.00
Non-Designated MBE	1	0.42
MBE	9	3.81
WBE	8	3.39
Non-Designated M/WBE	0	0.00
M/WBE	17	7.20
SBE	20	8.47
TOTAL	236	100.00

Source: MDC Contract Bidders, Contracts Bidder FY2005-2007, PMU Awardees- No Bidders, RFP Bidders, RFP/RFQ and RFP/RFQ; M³ Consulting

Level 2: Bidders + Prime Awardees (formal) + Subawardees (formal)

For goods and supplies, the bidder pool does not change when moving to level 2 as there are no sub awardees. If a firm is a winning prime, they are captured inside of the “bidder” number. Therefore, prime awardees also do not increase the pool, since they are included in bidders, thus avoiding double counting.

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Table 4.27: <i>RWAS^M</i> Availability by Relevant Market Level 2: Bidders + Prime Awardees (formal) + Subawardees (formal) Goods & Supplies The Metropolitan District Commission		
Ethnicity	States of CT, MA, NY, NJ	
	#	%
White male	199	84.32
Asian American	2	0.85
African American	5	2.12
Hispanic American	1	0.42
Native American	0	0.00
Non-designated MBEs	1	0.42
MBE	9	3.81
WBE	8	3.39
Non-designated M/WBEs	0	0.00
M/WBE	17	7.20
SBE	20	8.47
Total	236	100.00

Source: MDC Contract Bidders, Contracts bidder 05-07, PMU awardees-no Bidders, RFP Bidders, RFP/RFQ, Winning bidders, PMU Sub Awardees and Sub Awardees; M³ Consulting.

Level 3: Bidders + Prime Awardees (formal) + Subawardees (formal) + Prime Awardees (informal)

The total number for available firms that include all bidders and awardees (formal and informal) result in 812 firms in goods & supplies within the four-state area. Fifteen (1.85 percent of total) MBEs and eighteen (2.22 percent of total) WBEs are available.

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Table 4.28: RWASSM Availability by Relevant Market		
Level 3: Bidders + Prime Awardees (formal) + Subawardees (formal) + Prime Awardees (informal)		
Goods & Supplies		
The Metropolitan District Commission		
Ethnicity	States of CT, MA, NY, NJ	
	#	%
White male	733	90.27
Asian American	3	0.37
African American	6	0.74
Hispanic American	4	0.49
Native American	0	0.00
Non-designated MBEs	2	0.25
MBE	15	1.85
WBE	18	2.22
Non-designated M/WBEs	2	0.25
M/WBE	35	4.31
SBE	44	5.42
Total	812	100.00

Source: MDC Contract Bidders, Contracts bidder 05-07, PMU awardees-no Bidders, RFP Bidders, RFP/RFQ, Winning bidders, PMU Sub Awardees, Sub Awardees, 2008 Data and PO 2005-2007 INV; M³ Consulting.

MARKETPLACE AVAILABILITY IN GOODS & SUPPLIES

Census Availability in Goods & Supplies

Census availability reports 19,600 goods & supplies firms in the relevant market with 3,556 (or 18.14 percent) M/WBEs. Among the minority groups, Asian American-owned firms represent the largest (811 firms) number of goods & supplies firms in the area, followed by Hispanic-American-owned firms (270 firms). There are 1,081 MBEs and 2,475 WBEs accounting for 5.52 percent and 12.63 percent of the total goods & supplies firms respectively.

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Table 4.29: Count of Firms with Paid Employees
State of Connecticut
Census Goods & Services
FY 2002

Ethnicity	#	%
White Male	16,044	81.86
African American	0	0.00
Hispanic American	270	1.38
Asian American	811	4.14
American Indian	0	0.00
MBE	1,081	5.52
WBE*	2,475	12.63
M/WBE	3,556	18.14
Total	19,600	100.00

Source: 2002 Economic Census Minority and Women Owned Business – State of Connecticut

* Removes double counting of Minority females. The ratio of White females to Total Women was 88.39 percent.

SBA PRO-Net Availability in Goods & Supplies

SBA PRO-Net does not categorize goods and supplies separately.

4.4 Conclusions

Table 4.48 below summarizes the availability estimates for M/WBEs within the relevant market for The Metropolitan District Commission. It provides the estimates along with the source of the information. M³ Consulting places emphasis on the availability estimates, based on bidder and awardees data at Level 3 of the *RWASSM* model. The tables and the discussion are presented for the relevant markets by procurement type - the State of CT for architecture and Engineering and professional services and the four state areas of CT, MA, NY and NJ for construction, non-professional services and goods and supplies industries.

From M³ Consulting's practice, experience and understanding of data available, typically we place credence on *RWASSM* estimates derived from bidders and awardees in that order of importance. Census numbers are presented as a benchmark of M/WBE availability.

For construction, MBE availability percentage is about 11.79 percent, although specific MBE groups may have higher or lower availability estimates as was noted in the chapter. M/WBE availability in the relevant market (4-state area) in construction is at 19.66 percent. In comparison, Census availability of M/WBEs in construction is 9.14 percent for the State of CT. For WBEs, the *RWASSM* availability is only 4.84 percent, which is less than the Census estimate for availability for WBEs.

In A&E, the availability of M/WBEs was at 18 percent based on *RWASSM* estimates. MBEs were at 12 percent and WBEs close to 6.5 percent in the State of CT marketplace. For professional services, M/WBE availability based on *RWASSM* was only at 8.3 percent while the Census reflecting the upper bound of available firms was at 18.16 percent. WBEs were especially low in availability based on *RWASSM* estimates, as compared to Census estimates. Non-professional services witnessed a similar pattern with M/WBEs available around 6.68 percent and Census estimates of available firms shows a higher proportion of M/WBEs at 19.74 percent. Again, WBEs *RWASSM* estimates for non-professional services are especially low as compared to Census estimates. It may imply that WBE non-professional service firms may exist, but do not bid for work with MDC. Goods & supplies have M/WBE estimates at 4.31 percent, as opposed to 18.14 percent provided by Census.

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**Table 4.30: Summary Table - RWASM Availability Level 3 vs. Census by Relevant Market
The Metropolitan District Commission**

Ethnicity	A&E		Construction		Professional Services		Non-Professional Services		Goods & Supplies	
	LEVEL 3 ¹	Census ¹	LEVEL 3 ²	Census ¹	LEVEL 3 ¹	Census ¹	LEVEL 3 ²	Census ¹	LEVEL 3 ²	Census ¹
	%	%	%	%	%	%	%	%	%	%
White male	77.24	-	73.71	90.86	85.63	81.84	87.72	80.26	90.27	81.86
Asian	3.25	-	0.49	0.27	0.61	2.06	0.43	4.36	0.37	4.14
Black	3.25	-	5.65	0.97	2.14	0.72	1.72	0.47	0.74	0.00
Hispanic	4.07	-	4.18	1.68	1.83	1.10	1.29	2.32	0.49	1.38
Native American	0.00	-	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Non-designated MBEs	0.81	-	1.23		0.31		0.22		0.25	
MBE	11.38	-	11.79	2.91	4.89	3.88	3.66	7.15	1.85	5.52
WBE	6.50	-	7.86	6.23	3.06	14.28	3.02	12.60	2.22	12.63
Non-designated M/WBEs	0.81	-	0.00		0.31		0.00		0.25	
M/WBE	18.70	-	19.66	9.14	8.26	18.16	6.68	19.74	4.31	18.14
SBE	4.07	-	6.63		6.12		5.60		5.42	
Total	100.00	-	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: MDC Contract Bidders, Contracts bidder 05-07, PMU awardees-no bidders, RFP bidders, Winning bidders, PMU Sub Awardees, Sub Awardees, 2008 Data and PO 2005-2007 INV; 2002 Economic Census Survey of Business Owners; M³ Consulting.

¹ Relevant Market = State of Connecticut

² Relevant Market = States of Connecticut (CT), Massachusetts (MA), New York (NY) and New Jersey (NJ)

Chapter 5: Statistical Analysis of M/WBE Utilization

5.1 Introduction

This chapter presents data and analysis of contract awards, purchase order awards, and payments to M/WBEs from MDC for the period FY 2005-2008. This covers the universe of all dollars and contracts awarded by MDC.

M/WBE utilization in each of the major industry types of architecture & engineering, construction, professional services, non-professional services, and goods & supplies are discussed separately.

Within the section of each category, tables and discussions are presented to cover the different data sources, such as contracts, purchase orders and payables. The final section discusses threshold analysis and top ten awardees to decipher any patterns in utilization of M/WBEs.

The following are some salient features of the overall chapter presentation:

- Utilization will be presented using the data provided by the MDC The Procurement Services Unit and the MDC Finance Department for all procurement types.
- The tables and discussions within the body of the chapter cover data pertaining to firms located within the State of Connecticut or within the four-state area of Connecticut (CT), Massachusetts (MA), New York (NY), and New Jersey (NJ) [which were determined in Chapter IV to be the relevant markets].
- Tables covering all firms (viz., All Zips), regardless of location are presented in the Appendix.

TOTAL UTILIZATION FOR ALL PROCUREMENT TYPES

This section provides a summary of all purchase order payments (POs), accounts payables (AP) and contract awards by ethnic/gender group for the period FY 2005-2008, regardless of procurement category. This view provides an overall picture across procurement types. The analysis then shows the data by each procurement type.

Based on the evaluation of the contract dollars awarded, the State of Connecticut was identified as the relevant market for A&E and professional services. The four-state area of Connecticut (CT),

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Massachusetts (MA), New York (NY) and New Jersey (NJ) was identified as the relevant market for construction, non-professional services, and goods & supplies.

Total Utilization Based On Purchase Orders Awards

During the period FY 2005-2008, Table 5.1, below, shows the total purchase order awards made by the State of Connecticut and for the four-state area. In purchase orders, for all procurement types, a total of \$176.9 million was awarded for the period FY 2005-2008 in the State of Connecticut. Within the four-state areas of CT, MA, NY and NJ, \$206.9 million was awarded during the period. M/WBEs received \$26.3 million (14.89 percent) of the dollars within the State of CT and \$26.6 million (12.89 percent) overall. Overall, MBEs received 6.53 percent of the total dollars and WBEs 8.28 percent within State of CT. Hispanic American- and Asian American-owned firms received the majority of the dollars within the MBE category over the time period.

The pattern over the years has been that M/WBEs received a lower proportion over time of the total dollars awarded. This decline is largely due to WBEs getting a smaller share of the total dollars over the years. The proportion of dollars awarded to MBEs increased in the initial years of the study period and has since stayed in the 6.5 percent to 8 percent range.

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Table 5.1: Dollars of Purchase Order Payments (1 of 2)
All Procurement Types by Fiscal Year and Geographic Market;
The Metropolitan District Commission, FY 2005-FY 2008

Ethnicity	FY 2005				FY 2006				FY 2007			
	State of CT ¹		CT, MA, NY, NJ ²		State of CT ¹		CT, MA, NY, NJ ²		State of CT ¹		CT, MA, NY, NJ ²	
	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%
White male	31,342,793	68.04	35,573,670	70.65	42,546,633	84.50	56,451,220	87.85	34,859,787	85.83	41,238,218	87.74
Asian American	506,265	1.10	506,265	1.01	216,027	0.43	216,027	0.34	910,103	2.24	910,103	1.94
African American	72,900	0.16	72,900	0.14	18,955	0.04	18,955	0.03	34,920	0.09	34,920	0.07
Hispanic American	1,256,879	2.73	1,308,754	2.60	3,722,457	7.39	3,722,457	5.79	1,596,022	3.93	1,603,852	3.41
Native American	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Non-Designated	4,886	0.01	4,886	0.01	10,310	0.02	10,310	0.02	93,630	0.23	93,630	0.20
MBE	1,840,930	4.00	1,892,805	3.76	3,967,749	7.88	3,967,749	6.17	2,634,675	6.49	2,642,505	5.62
WBE	8,410,492	18.26	8,410,492	16.70	3,372,512	6.70	3,372,512	5.25	1,483,561	3.65	1,483,561	3.16
Non-Designated	0	0.00	0	0.00	0	0.00	0	0.00	9,500	0.02	9,500	0.02
M/WBE	10,251,422	22.25	10,303,297	20.46	7,340,261	14.58	7,340,261	11.42	4,127,736	10.16	4,135,566	8.80
SBE	4,472,261	9.71	4,472,261	8.88	463,310	0.92	463,860	0.72	1,625,103	4.00	1,625,103	3.46
Total	46,066,476	100.00	50,349,228	100.00	50,350,204	100.00	64,255,341	100.00	40,612,626	100.00	46,998,887	100.00

Source: The Metropolitan District Commission's Procurement Department; M³ Consulting

1 Relevant Market = State of Connecticut

2 Relevant Market = States of Connecticut (CT), Massachusetts (MA), New York (NY) and New Jersey (NJ)

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Table 5.1: Dollars of Purchase Order Payments (2 of 2)
All Procurement Types by Fiscal Year and Geographic Market;
The Metropolitan District Commission, FY 2005-FY 2008

Ethnicity	FY 2008				FY 2005-2008			
	State of CT ¹		CT, MA, NY, NJ ²		State of CT ¹		CT, MA, NY, NJ ²	
	\$	%	\$	%	\$	%	\$	%
White male	34,405,121	86.10	39,509,065	87.15	143,154,334	80.88	172,772,173	83.49
Asian American	581,810	1.46	581,810	1.28	2,214,205	1.25	2,214,205	1.07
African American	494,672	1.24	494,672	1.09	621,447	0.35	621,447	0.30
Hispanic American	335,953	0.84	335,953	0.74	6,911,311	3.90	6,971,016	3.37
Native American	0	0.00	0	0.00	0	0.00	0	0.00
Non-Designated	1,701,997	4.26	1,701,997	3.75	1,810,823	1.02	1,810,823	0.88
MBE	3,114,432	7.79	3,114,432	6.87	11,557,786	6.53	11,617,491	5.61
WBE	1,394,348	3.49	1,666,666	3.68	14,660,913	8.28	14,933,231	7.22
Non-Designated	122,894	0.31	122,894	0.27	132,394	0.07	132,394	0.06
M/WBE	4,631,674	11.59	4,903,992	10.82	26,351,093	14.89	26,683,116	12.89
SBE	922,218	2.31	922,218	2.03	7,482,892	4.23	7,483,442	3.62
Total	39,959,013	100.00	45,335,275	100.00	176,988,319	100.00	206,938,731	100.00

Source: The Metropolitan District Commission's Procurement Department; M³ Consulting

1 Relevant Market = State of Connecticut

2 Relevant Market = States of Connecticut (CT), Massachusetts (MA), New York (NY) and New Jersey (NJ)

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Total Utilization Based On Accounts Payables

For the period FY 2005-2008, Table 5.2 shows the total payments made by MDC. In accounts payables, for all procurement types, a total of \$164.8 million was awarded for the period FY 2005-2008 within the State. A total of \$191.3 million was paid out in the four-state area.

MBEs received 7.32 percent (approximately \$12 million) in the State of CT and 6.34 percent (approximately \$12.1 million) in the four-state area. WBEs received \$14.5 million in both the State of CT and the four-state area, representing 8.79 percent and 7.57 percent respectively.

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Table 5.2: Dollars of Accounts Payable

All Procurement Types by Fiscal Year and Geographic Market;

The Metropolitan District Commission, FY 2005-FY 2008

Ethnicity	FY 2005				FY 2006				FY 2007			
	State of CT ¹		CT, MA, NY, NJ ²		State of CT ¹		CT, MA, NY, NJ ²		State of CT ¹		CT, MA, NY, NJ ²	
	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%
White male	21,227,534	90.31	25,367,606	91.56	34,451,853	69.75	42,769,567	74.11	38,488,741	79.33	47,173,354	79.33
Asian American	416,788	1.77	416,788	1.50	860,849	1.74	860,849	1.49	804,923	1.66	804,923	1.66
African American	201,328	0.86	202,128	0.73	239,105	0.48	239,105	0.41	78,262	0.16	78,262	0.16
Hispanic American	845,505	3.60	897,830	3.24	2,449,329	4.96	2,449,329	4.24	3,026,251	6.24	3,028,411	6.24
Native American	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Non-Designated	12,375	0.05	12,375	0.04	13,970	0.03	13,970	0.02	9,423	0.02	9,423	0.02
MBE	1,475,996	6.28	1,529,121	5.52	3,563,253	7.21	3,563,253	6.17	3,918,859	8.08	3,921,019	8.08
WBE	227,140	0.97	227,140	0.82	7,508,354	15.20	7,508,354	13.01	5,350,660	11.03	5,350,660	11.03
Non-Designated M/WBE	2,630	0.01	2,630	0.01	1,545	0.00	1,545	0.00	621	0.00	621	0.00
M/WBE	1,705,766	7.26	1,758,891	6.35	11,073,152	22.42	11,073,152	19.19	9,270,140	19.11	9,272,300	19.11
SBE	572,703	2.44	579,951	2.09	3,865,026	7.83	3,865,576	6.70	761,334	1.57	761,640	1.57
Total	23,506,003	100.00	27,706,448	100.00	49,390,031	100.00	57,708,295	100.00	48,520,215	100.00	57,207,294	100.00

Source: The Metropolitan District Commission's Procurement Department; M³ Consulting

1 Relevant Market = State of Connecticut

2 Relevant Market = States of Connecticut (CT), Massachusetts (MA), New York (NY) and New Jersey (NJ)



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5.2 Utilization by Procurement Type

The tables on the following pages summarize the contract information on MDC projects, maintained by the MDC Procurement Department, which tracked awards to M/WBE prime and subcontractors. The geographic area covered is the State of CT and the four states of CT, MA, NY and NJ. The relevant market for each procurement type is as follows:

Figure 5.1: Relevant Market by Procurement Type	
Procurement Type	Relevant Market
Architecture & Engineering	State of Connecticut
Construction	Four-State Area of CT, MA, NY and NJ
Professional Services	State of Connecticut
Non-Professional Services	Four-State Area of CT, MA, NY and NJ
Goods & Supplies	Four-State Area of CT, MA, NY and NJ

Source: M³ Consulting

ARCHITECTURE & ENGINEERING

In the area of Architecture & Engineering, M/WBE utilization is presented in this section using purchase order, payments and contracts data. The relevant market for Architecture & Engineering is the State of CT.

Architecture & Engineering Purchase Order Awards Data

A total of \$34.9 million was paid out via A&E purchase orders within the State of CT for the period FY 2005-2008. MBEs received only 0.06 percent of these dollars and WBEs received zero dollars in prime contracts in the State.

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Table 5.3: Dollars of Purchase Order Payments

Architecture & Engineering by Fiscal Year;

Relevant Market, The Metropolitan District Commission, FY 2005-FY 2008

Ethnicity	FY 2005		FY 2006		FY 2007		FY 2008		FY 2005-2008	
	State of CT ¹		State of CT ¹		State of CT ¹		State of CT ¹		State of CT ¹	
	\$	%	\$	%	\$	%	\$	%	\$	%
White male	5,762,947	99.58	15,526,413	99.88	3,586,413	100	9,977,935	99.89	34,853,708	99.84
Asian American	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
African American	6,000	0.10	2,880	0.02	0	0.00	0	0.00	8,880	0.03
Hispanic American	0	0.00	13,000	0.08	0	0.00	0	0.00	13,000	0.04
Native American	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Non-Designated	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
MBE	6,000	0.10	15,880	0.10	0	0.00	0	0.00	21,880	0.06
WBE	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Non-Designated M/WBE	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
M/WBE	6,000	0.10	15,880	0.10	0	0.00	0	0.00	21,880	0.06
SBE	18,200	0.31	3,000	0.02	0	0.00	11,230	0.11	32,430	0.09
Total	5,787,147	100.00	15,545,293	100.00	3,586,413	100.00	9,989,165	100.00	34,908,018	100.00

Source: The Metropolitan District Commission's Procurement Department; M³ Consulting

1 Relevant Market = State of Connecticut

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Architecture & Engineering Accounts Payable Data

Within the State of CT, a total of \$30.5 million in purchase order payments were made by MDC in Architecture & Engineering over the period FY 2005-2008. Extending out to the four-state area, total payments increased to \$31.3 million.

Within the State of CT, M/WBEs overall received less than 0.03 percent of the purchase order payments for the period, while White male-owned firms received 99.82 percent of the payments overall. African American-owned firms received the majority of the dollars (\$7,880) among the MBEs, while WBEs received \$1,267. (Table 5.4) M/WBE participation did not change when the marketplace was expanded to the four-state area.

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Table 5.4: Dollars of Accounts Payable

Architecture & Engineering by Fiscal Year;

Relevant Market, The Metropolitan District Commission, FY 2005-FY 2008

Ethnicity	FY 2005		FY 2006		FY 2007		FY 2008		FY 2005-2008	
	State of CT ¹		State of CT ¹		State of CT ¹		State of CT ¹		State of CT ¹	
	\$	%	\$	%	\$	%	\$	%	\$	%
White male	2,558,758	99.10	12,383,201	99.88	5,598,921	99.90886912	9,977,935	99.89	30,518,815	99.82
Asian American	0	0.00	0	0.00	500	0.01	0	0.00	500	0.00
African American	5,000	0.19	2,880	0.02	0	0.00	0	0.00	7,880	0.03
Hispanic American	0	0.00	0	0.00	340	0.01	0	0.00	340	0.00
Native American	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Non-Designated	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
MBE	5,000	0.19	2,880	0.02	840	0.01	0	0.00	8,720	0.03
WBE	0	0.00	0	0.00	1,267	0.02	0	0.00	1,267	0.00
Non-Designated M/WBE	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
M/WBE	5,000	0.19	2,880	0.02	2,107	0.04	0	0.00	9,987	0.03
SBE	18,200	0.70	12,313	0.10	3,000	0.05	11,230	0.11	44,743	0.15
Total	2,591,958	100.00	12,398,394	100.00	5,604,028	100.00	9,989,165	100.00	30,573,545	100.00

Source: The Metropolitan District Commission's Procurement Department; M³ Consulting

¹ Relevant Market = State of Connecticut

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Architecture & Engineering Prime + Subcontractor Contract Awards Data

Tables 5.5 present total utilization of prime and subcontracts in MDC contracts for the period FY 2005-2008. Over \$33.6 million was awarded in contracts within the State of CT and about 12.47 percent of these contracts were awarded to M/WBEs. Hispanic American-owned firms received the majority of the M/WBE contract dollars, accounting for 5.45 percent of the total. Asian American-owned firms and WBEs received 1.44 percent and 2.98 percent of the M/WBE contract dollars awarded respectively. All of the M/WBE dollars came from subcontracts awarded during the study period, FY 2005–FY 2008.

When the marketplace is the four-state area, M/WBE participation raises slightly from 12.47 percent to 14.84 percent, as contract dollars increase slightly due to a small contract to a non-designated MBE.

Subcontractor Contract Awards Data

In State of CT subcontracting, a total of \$4.2 million were awarded to subcontractors for the FY 2005-2008 period; 95.65 percent of these were awarded to M/WBEs. MBEs received \$3.0 million or 71.98 percent and WBEs received \$1.0 million or 23.67 percent in subcontracting for FY 2005 - FY 2008.

M/WBE participation dropped from 100.00 percent to 92.57 percent, primarily due to an increase in White male-owned firm participation from 0.00 percent to 7.43 percent. We note that White male-owned firm subcontract dollars may be undercounted or underrepresented. (Table 5.6)

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Table 5.5: Prime + Subcontractor Dollars

Dollar Value of Contract Awards

Architecture & Engineering by Fiscal Year;

Relevant Market, The Metropolitan District Commission, FY 2005-FY 2008

Ethnicity	FY 2005		FY 2006		FY 2007		FY 2008		FY 2005-2008	
	State of CT ¹		State of CT ¹		State of CT ¹		State of CT ¹		State of CT ¹	
	\$	%	\$	%	\$	%	\$	%	\$	%
White male	4,369,420	92.07	9,109,742	89.49	5,516,349	92.41374077	10,448,939	81.99	29,444,450	87.53
Asian American	130,540	2.75	77,983	0.77	144,774	2.43	131,000	1.03	484,297	1.44
African American	14,693	0.31	0	0.00	0	0.00	0	0.00	14,693	0.04
Hispanic American	0	0.00	80,700	0.79	0	0.00	1,753,146	13.76	1,833,846	5.45
Native American	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Non-Designated										
MBE	123,000	2.59	735,738	7.23	0	0.00	0	0.00	858,738	2.55
MBE	268,233	5.65	894,421	8.79	144,774	2.43	1,884,146	14.78	3,191,574	9.49
WBE	108,143	2.28	175,080	1.72	308,064	5.16	410,822	3.22	1,002,109	2.98
Non-Designated										
M/WBE	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
M/WBE	376,376	7.93	1,069,501	10.51	452,838	7.59	2,294,968	18.01	4,193,683	12.47
SBE	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Total	4,745,796	100.00	10,179,243	100.00	5,969,187	100.00	12,743,907	100.00	33,638,133	100.00

Source: The Metropolitan District Commission's Procurement Department; M³ Consulting

¹ Relevant Market = State of Connecticut

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**Table 5.6: Subcontractor Dollars
Dollar Value of Contract Awards
Architecture & Engineering by Fiscal Year;
Relevant Market, The Metropolitan District Commission, FY 2005-FY 2008**

Ethnicity	FY 2005			FY 2006			FY 2007			FY 2008			FY 2005-2008		
	State of CT ¹			State of CT ¹			State of CT ¹			State of CT ¹			State of CT ¹		
	\$	%		\$	%		\$	%		\$	%		\$	%	
White male	0	0.00		0	0.00		0			184,132	7.43		184,132		4.35
Asian American	130,540	34.68		77,983	7.29		0	0.00		131,000	5.28		339,523		8.02
African American	14,693	3.90		0	0.00		0	0.00		0	0.00		14,693		0.35
Hispanic American	0	0.00		80,700	7.55		0	0.00		1,753,146	70.72		1,833,846		43.32
Native American	0	0.00		0	0.00		0	0.00		0	0.00		0		0.00
Non-Designated															
MBE	123,000	32.68		735,738	68.79		0	0.00		0	0.00		858,738		20.29
MBE	268,233	71.27		894,421	83.63		0	0.00		1,884,146	76.00		3,046,800		71.98
WBE	108,143	28.73		175,080	16.37		308,064	100.00		410,822	16.57		1,002,109		23.67
Non-Designated															
M/WBE	0	0.00		0	0.00		0	0.00		0	0.00		0		0.00
M/WBE	376,376	100.00		1,069,501	100.00		308,064	100.00		2,294,968	92.57		4,048,909		95.65
SBE	0	0.00		0	0.00		0	0.00		0	0.00		0		0.00
Total	376,376	100.00		1,069,501	100.00		308,064	100.00		2,479,100	100.00		4,233,041		100.00

Source: The Metropolitan District Commission's Procurement Department; M³ Consulting

1 Relevant Market = State of Connecticut

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CONSTRUCTION

In the area of construction, M/WBE utilization is presented in this section using purchase order, payments and contracts data. The relevant market for construction is the four-state area of CT, MA, NY and NJ.

Construction Purchase Order Awards Data

As shown in Table 5.7, a total of \$94.1 million in purchase order payments were made by the MDC in Construction over the period FY 2005-2008 in the four-state area.

In the four-state area, M/WBEs received 23.92 percent of purchase order payments. MBE participation is only at 8.66 percent and WBE participation at 15.26 percent.

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**Table 5.7: Dollars of Purchase Order Payments
Construction by Fiscal Year;**

Relevant Market, The Metropolitan District Commission, FY 2005-FY 2008

Ethnicity	FY 2005		FY 2006		FY 2007		FY 2008		FY 2005-2008	
	CT, MA, NY, NJ ¹	%	CT, MA, NY, NJ ¹	%	CT, MA, NY, NJ ¹	%	CT, MA, NY, NJ ¹	%	CT, MA, NY, NJ ¹	%
White male	15,477,537	52.97	18,100,527	73.17	19,983,246	86.42	13,840,179	80.90	67,401,489	71.56
Asian American	0	0.00	0	0.00	159,720	0.69	0	0.00	159,720	0.17
African American	16,000	0.05	13,000	0.05	12,500	0.05	0	0.00	41,500	0.04
Hispanic American	1,259,379	4.31	3,178,560	12.85	1,561,393	6.75	298,835	1.75	6,298,167	6.69
Native American	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Non-Designated MBE	0	0.00	0	0.00	0	0.00	1,659,551	9.70	1,659,551	1.76
MBE	1,275,379	4.37	3,191,560	12.90	1,733,613	7.50	1,958,386	11.45	8,158,938	8.66
WBE	8,355,657	28.60	3,354,117	13.56	1,397,244	6.04	1,265,854	7.40	14,372,872	15.26
Non-Designated M/WBE	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
M/WBE	9,631,036	32.96	6,545,677	26.46	3,130,857	13.54	3,224,240	18.85	22,531,810	23.92
SBE	4,108,737	14.06	90,001	0.36	10,572	0.05	43,719	0.26	4,253,029	4.52
Total	29,217,310	100.00	24,736,205	100.00	23,124,675	100.00	17,108,138	100.00	94,186,328	100.00

Source: The Metropolitan District Commission's Procurement Department; M³ Consulting

¹ Relevant Market = States of Connecticut (CT), Massachusetts (MA), New York (NY) and New Jersey (NJ)

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Construction Accounts Payable Data

Within the study period, total payments for construction summed to \$86.2 million to vendors within the four-state area, respectively.

M/WBE received almost 27 percent of the dollars in the relevant market with a large proportion going to WBEs. The latter group received 16.46 percent (\$14.2 million) of total dollars, while MBEs received 10.11 percent (\$8.71 million) of the dollars. Hispanic American-owned firms received majority of the dollars among the MBEs receiving over \$6.5 million or 7.59 percent of the total dollars in the relevant market. (Table 5.8)

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Table 5.8: Dollars of Accounts Payable

Construction by Fiscal Year;

Relevant Market, The Metropolitan District Commission, FY 2005-FY 2008

Ethnicity	FY 2005		FY 2006		FY 2007		FY 2008		FY 2005-2008	
	CT, MA, NY, NJ ¹		CT, MA, NY, NJ ¹		CT, MA, NY, NJ ¹		CT, MA, NY, NJ ¹		CT, MA, NY, NJ ¹	
	\$	%	\$	%	\$	%	\$	%	\$	%
White male	11,015,276	88.55	12,623,734	48.08	21,689,247	66.28	13,854,999	80.91	59,183,256	68.69
Asian American	0	0.00	0	0.00	147,946	0.58	0	0.00	147,946	0.17
African American	120,908	0.97	174,015	0.66	69,065	0.27	0	0.00	363,988	0.42
Hispanic American	833,938	6.70	2,435,684	9.28	2,967,978	11.58	298,835	1.75	6,536,435	7.59
Native American	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Non-Designated MBE	0	0.00	0	0.00	1,760	0.01	1,659,551	9.69	1,661,311	1.93
MBE	954,846	7.68	2,609,699	9.94	3,186,749	12.43	1,958,386	11.44	8,709,680	10.11
WBE	141,907	1.14	7,474,822	28.47	5,300,989	20.68	1,265,854	7.39	14,183,572	16.46
Non-Designated M/WBE	0	0.00	1,295	0.00	0	0.00	0	0.00	1,295	0.00
M/WBE	1,096,753	8.82	10,085,816	38.41	8,487,738	33.11	3,224,240	18.83	22,894,547	26.57
SBE	327,743	2.63	3,548,418	13.51	157,355	0.61	43,719	0.26	4,077,235	4.73
Total	12,439,772	100.00	26,257,968	100.00	30,334,340	100.00	17,122,958	100.00	86,155,038	100.00

Source: The Metropolitan District Commission's Procurement Department; M³ Consulting

1 Relevant Market = States of Connecticut (CT), Massachusetts (MA), New York (NY) and New Jersey (NJ)

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Construction Prime + Subcontractor Contract Awards Data

A total of \$113.1 million in construction prime and subcontracts were awarded by MDC (Table 5.9) in the four-state area of CT, MA, NY and NJ for the study period of FY 2005-2008. Of this amount, MBEs received 28.19 percent (\$31.8 million) and WBEs received 11.26 percent (\$12.7 million). The MBE participation was largely driven by an award to a NJ-based Hispanic American-owned firm in FY 2008 who received \$22.8 million dollars.

Subcontractor Contract Awards Data

A total of \$8.5 million was awarded in construction subcontracts in the four-state area (Table 5.10). For the four-state area, MBEs received 62.5 percent (\$5.34 million), while WBEs received 28.17 percent or \$2.41 million. It is noted that subcontracting activity by White male-owned firms may not be fully represented by the data provided; M³ Consulting made an attempt to call prime contractors to obtain White male sub contractor records and was able to obtain and identify a large proportion of White subcontractors. However, the dollars apportioned to these subcontractors were not provided by any prime contractor. Accordingly, to the extent that White males subcontractors are undercounted, the relative M/WBE subcontract participation reflected here may be overestimated.

The implication of this undercount may result in M/WBE availability percentage appearing higher than reported and thus slightly lower disparity ratios than may be the case.

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Table 5.9: Prime + Subcontractor Dollars

Dollar Value of Contract Awards

Construction by Fiscal Year;

Relevant Market, The Metropolitan District Commission, FY 2005-FY 2008

Ethnicity	FY 2005		FY 2006		FY 2007		FY 2008		FY 2005-2008	
	CT, MA, NY, NJ ¹	%	CT, MA, NY, NJ ¹	%	CT, MA, NY, NJ ¹	%	CT, MA, NY, NJ ¹	%	CT, MA, NY, NJ ¹	%
White male	21,991,721	64.82	10,647,342	65.11	3,880,959	69.50	22,364,650	38.68	58,884,672	52.08
Asian American	70,750	0.21	0	0.00	0	0.00	0	0.00	70,750	0.06
African American	324,870	0.96	172,725	1.06	0	0.00	1,549,364	2.68	2,046,959	1.81
Hispanic American	2,317,775	6.83	2,928,402	17.91	0	0.00	22,782,659	39.40	28,028,836	24.79
Native American	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Non-Designated										
MBE	397,055	1.17	1,151,469	7.04	0	0.00	179,900	0.31	1,728,424	1.53
MBE	3,110,450	9.17	4,252,596	26.01	0	0.00	24,511,923	42.39	31,874,969	28.19
WBE	4,645,297	13.69	946,240	5.79	391,600	10.94	6,743,533	11.66	12,726,670	11.26
Non-Designated										
M/WBE	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
M/WBE	7,755,747	22.86	5,198,836	31.79	391,600	10.94	31,255,456	54.05	44,601,639	39.44
SBE	4,178,344	12.32	506,800	3.10	699,950	19.56	4,201,843	7.27	9,586,937	8.48
Total	33,925,812	100.00	16,352,978	100.00	4,972,509	100.00	57,821,949	100.00	113,073,248	100.00

Source: The Metropolitan District Commission's Procurement Department; M³ Consulting

1 Relevant Market = States of Connecticut (CT), Massachusetts (MA), New York (NY) and New Jersey (NJ)

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**Table 5.10: Subcontractor Dollars
Dollar Value of Contract Awards
Construction by Fiscal Year;
Relevant Market, The Metropolitan District Commission, FY 2005-FY 2008**

Ethnicity	FY 2005		FY 2006		FY 2007		FY 2008		FY 2005-2008	
	CT, MA, NY, NJ ¹	%	CT, MA, NY, NJ ¹	%	CT, MA, NY, NJ ¹	%	CT, MA, NY, NJ ¹	%	CT, MA, NY, NJ ¹	%
White male	0	0.00	0	0.00	0	#DIV/0!	802,201	17.24	802,201	9.38
Asian American	70,750	3.65	0	0.00	0	#DIV/0!	0	0.00	70,750	0.83
African American	324,870	16.76	172,725	8.80	0	#DIV/0!	947,918	20.37	1,445,513	16.90
Hispanic American	343,300	17.71	412,627	21.02	0	#DIV/0!	1,341,830	28.84	2,097,757	24.52
Native American	0	0.00	0	0.00	0	#DIV/0!	0	0.00	0	0.00
Non-Designated										
MBE	397,055	20.49	1,151,469	58.65	0	#DIV/0!	179,900	3.87	1,728,424	20.21
MBE	1,135,975	58.61	1,736,821	88.47	0	#DIV/0!	2,469,648	53.08	5,342,444	62.46
WBE	802,077	41.39	226,455	11.53	0	#DIV/0!	1,380,668	29.68	2,409,200	28.17
Non-Designated										
M/WBE	0	0.00	0	0.00	0	#DIV/0!	0	0.00	0	0.00
M/WBE	1,938,052	100.00	1,963,276	100.00	0	#DIV/0!	3,850,316	82.76	7,751,644	90.62
SBE	0	0.00	0	0.00	0	#DIV/0!	0	0.00	0	0.00
Total	1,938,052	100.00	1,963,276	100.00	0	#DIV/0!	4,652,517	100.00	8,553,845	100.00

Source: The Metropolitan District Commission's Procurement Department; M³ Consulting

1 Relevant Market = States of Connecticut (CT), Massachusetts (MA), New York (NY) and New Jersey (NJ)

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PROFESSIONAL SERVICES

In the area of professional services, M/WBE utilization is presented in this section using purchase order, payments and contracts data. The relevant market for professional services is the State of CT.

Professional Services Purchase Order Awards Data

Purchase order payments were made by MDC in professional services over the period FY 2005-2008 for \$21.1 million with the State of CT. M/WBEs overall received a little over 3 percent of the State of CT purchase order payments for the period. African American-, Hispanic American- and Asian American-owned firms received the majority of the M/WBE dollars, with MBE participation at 2.76 percent. WBEs received 0.23 percent of the dollars for the period. (Table 5.11)

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**Table 5.11: Dollars of Purchase Order Payments
Professional Services by Fiscal Year;
Relevant Market, The Metropolitan District Commission, FY 2005-FY 2008**

Ethnicity	FY 2005		FY 2006		FY 2007		FY 2008		FY 2005-2008	
	State of CT ¹		State of CT ¹		State of CT ¹		State of CT ¹		State of CT ¹	
	\$	%	\$	%	\$	%	\$	%	\$	%
White male	3,555,205	98.13	7,628,939	98.17	4,395,578	98.20	4,647,930	88.30	20,227,652	95.71
Asian American	0	0.00	0	0.00	0	0.00	27,645	0.53	27,645	0.13
African American	12,180	0.34	0	0.00	2,500	0.06	494,672	9.40	509,352	2.41
Hispanic American	0	0.00	0	0.00	9,500	0.21	37,118	0.71	46,618	0.22
Native American	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Non-Designated	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
MBE	12,180	0.34	0	0.00	12,000	0.27	559,435	10.63	583,615	2.76
WBE	11,525	0.32	0	0.00	9,500	0.21	28,094	0.53	49,119	0.23
Non-Designated M/WBE	0	0.00	0	0.00	9,500	0.21	9,950	0.19	19,450	0.09
M/WBE	23,705	0.65	0	0.00	31,000	0.69	597,479	11.35	652,184	3.09
SBE	44,052	1.22	142,588	1.83	49,425	1.10	18,492	0.35	254,557	1.20
Total	3,622,962	100.00	7,771,527	100.00	4,476,003	100.00	5,263,901	100.00	21,134,393	100.00

Source: The Metropolitan District Commission's Procurement Department; M³ Consulting

¹ Relevant Market = State of Connecticut

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Professional Services Accounts Payable Data

A total of \$21.45 million in payments were made by MDC Finance Department to professional services vendors over the period FY 2005-2008 for the State of CT. M/WBEs overall received over 3.25 percent of the purchase order payments for the period within the relevant market. WBEs received only 0.34 percent (\$71,890.00) of the dollars for the entire four-year period. (Table 5.12)

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Table 5.12: Dollars of Accounts Payable

Professional Services by Fiscal Year;

Relevant Market, The Metropolitan District Commission, FY 2005-FY 2008

Ethnicity	FY 2005		FY 2006		FY 2007		FY 2008		FY 2005-2008	
	State of CT ¹		State of CT ¹		State of CT ¹		State of CT ¹		State of CT ¹	
	\$	%	\$	%	\$	%	\$	%	\$	%
White male	2,933,464	95.94	5,504,963	98.40	6,320,951	97.73	5,714,728	90.27	20,474,106	95.45
Asian American	0	0.00	0	0.00	2,880	0.04	27,645	0.44	30,525	0.14
African American	10,191	0.33	7,577	0.14	8,875	0.14	494,672	7.81	521,315	2.43
Hispanic American	105	0.00	825	0.01	24,915	0.39	37,118	0.59	62,963	0.29
Native American	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Non-Designated	319	0.01	0	0.00	0	0.00	0	0.00	319	0.00
MBE	10,615	0.35	8,402	0.15	36,670	0.57	559,435	8.84	615,122	2.87
WBE	41,836	1.37	1,225	0.02	735	0.01	28,094	0.44	71,890	0.34
Non-Designated M/WBE	0	0.00	0	0.00	291	0.00	9,950	0.16	10,241	0.05
M/WBE	52,451	1.72	9,627	0.17	37,696	0.58	597,479	9.44	697,253	3.25
SBE	71,646	2.34	79,641	1.42	109,411	1.69	18,492	0.29	279,190	1.30
Total	3,057,561	100.00	5,594,231	100.00	6,468,058	100.00	6,330,699	100.00	21,450,549	100.00

Source: The Metropolitan District Commission's Procurement Department; M³ Consulting

1. Relevant Market = State of Connecticut

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Professional Services Prime + Subcontractor Contract Awards Data

On the following pages, Table 5.13 summarize the contract information on MDC projects maintained by the MDC The Procurement Services Unit, which did track awards to M/WBE prime and subcontractors.

Over \$8.4 million was awarded in total to professional service vendors in the State of CT by MDC for prime and subcontracts. M/WBE utilization represents 12.3 percent of the total. African American-owned firms received 6.05 percent of this total and 2.22 percent was awarded to Asian American-owned firms. WBEs received 3.47 percent of contract awards.

It is worth noting that professional services overall for the district is fairly limited. Further, PMU is just starting to move significantly beyond the design phase into the construction phase. This is expected in the near future to increase the utilization of firms in all procurement types.

Subcontractor Contract Awards Data

In subcontract awards, a total of \$577,211 was awarded entirely to M/WBEs for the entire four-year period, FY 2005-2008 within the relevant market. Asian American-owned firms and WBEs took the majority of the subcontracting dollars, receiving 32.29 percent and 50.46 percent of the dollars. African American- and Hispanic American-owned firms each received less than 10 percent of the total subcontracting dollars. These awards were only in FY 2007 and FY2008. (Tables 5.14)

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**Table 5.13: Prime + Subcontractor Dollars
Dollar Value of Contract Awards
Professional Services by Fiscal Year;
Relevant Market, The Metropolitan District Commission, FY 2005-FY 2008**

Ethnicity	FY 2005		FY 2006		FY 2007		FY 2008		FY 2005-2008	
	State of CT ¹		State of CT ¹		State of CT ¹		State of CT ¹		State of CT ¹	
	\$	%	\$	%	\$	%	\$	%	\$	%
White male	5,433,993	100.00	150,000	100.00	423,000	44.17	1,348,735	73.23	7,355,728	87.74
Asian American	0	0.00	0	0.00	186,368	19.46	0	0.00	186,368	2.22
African American	0	0.00	0	0.00	57,100	5.96	450,472	24.46	507,572	6.05
Hispanic American	0	0.00	0	0.00	0	0.00	42,500	2.31	42,500	0.51
Native American	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Non-Designated										
MBE	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
MBE	0	0.00	0	0.00	243,468	25.42	492,972	26.77	736,440	8.78
WBE	0	0.00	0	0.00	291,243	30.41	0	0.00	291,243	3.47
Non-Designated										
M/WBE	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
M/WBE	0	0.00	0	0.00	534,711	55.83	492,972	26.77	1,027,683	12.26
SBE	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Total	5,433,993	100.00	150,000	100.00	957,711	100.00	1,841,707	100.00	8,383,411	100.00

Source: The Metropolitan District Commission's Procurement Department; M³ Consulting

1. Relevant Market = State of Connecticut

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**Table 5.14: Subcontractor Dollars
 Dollar Value of Contract Awards
 Professional Services by Fiscal Year;
 Relevant Market, The Metropolitan District Commission, FY 2005-FY 2008**

Ethnicity	FY 2005			FY 2006			FY 2007			FY 2008			FY 2005-2008		
	State of CT ¹		%	State of CT ¹		%	State of CT ¹		%	State of CT ¹		%	State of CT ¹		%
	\$	#	DIV/OI	\$	#	DIV/OI	\$	#	DIV/OI	\$	#	DIV/OI	\$	#	DIV/OI
White male	0	0	#DIV/OI	0	0	#DIV/OI	0	0	0.00	0	0	0.00	0	0	0.00
Asian American	0	0	#DIV/OI	0	0	#DIV/OI	186,368	34.85	34.85	0	0	0.00	186,368	32.29	32.29
African American	0	0	#DIV/OI	0	0	#DIV/OI	57,100	10.68	10.68	0	0	0.00	57,100	9.89	9.89
Hispanic American	0	0	#DIV/OI	0	0	#DIV/OI	0	0.00	0.00	42,500	100.00	100.00	42,500	7.36	7.36
Native American	0	0	#DIV/OI	0	0	#DIV/OI	0	0.00	0.00	0	0	0.00	0	0.00	0.00
Non-Designated	0	0	#DIV/OI	0	0	#DIV/OI	0	0.00	0.00	0	0	0.00	0	0.00	0.00
MBE	0	0	#DIV/OI	0	0	#DIV/OI	243,468	45.53	45.53	42,500	100.00	100.00	285,968	49.54	49.54
WBE	0	0	#DIV/OI	0	0	#DIV/OI	291,243	54.47	54.47	0	0	0.00	291,243	50.46	50.46
Non-Designated	0	0	#DIV/OI	0	0	#DIV/OI	0	0.00	0.00	0	0	0.00	0	0.00	0.00
M/WBE	0	0	#DIV/OI	0	0	#DIV/OI	534,711	100.00	100.00	42,500	100.00	100.00	577,211	100.00	100.00
SBE	0	0	#DIV/OI	0	0	#DIV/OI	0	0.00	0.00	0	0	0.00	0	0.00	0.00
Total	0	0	#DIV/OI	0	0	#DIV/OI	534,711	100.00	100.00	42,500	100.00	100.00	577,211	100.00	100.00

Source: The Metropolitan District Commission's Procurement Department; M³ Consulting
 1 Relevant Market = State of Connecticut

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NON-PROFESSIONAL SERVICES

In the area of non-professional services, M/WBE utilization is presented in this section using purchase order, payments and contracts data. The relevant market for non-professional services is the four-state area of CT, MA, NY and NJ.

Non-Professional Services Purchase Order Awards Data

For the four-state area, total dollars in non-professional services was \$12.5 million for the study period. White male-owned firm dollars showed \$9.9 million (79.11 percent). Hispanic American-owned and African American-owned firms each received less than 0.5 percent of the dollars, while WBEs received \$302,468 (2.42 percent). Asian American-owned firms received the largest proportion of non-professional service dollars following White male-owned firms at 15.51 percent. Overall, M/WBE participation was at 18.47 percent. (Table 5.15)

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**Table 5.15: Dollars of Purchase Order Payments
Non-Professional Services by Fiscal Year;
Relevant Market, The Metropolitan District Commission, FY 2005-FY 2008**

Ethnicity	FY 2005		FY 2006		FY 2007		FY 2008		FY 2005-2008	
	CT, MA, NY, NJ ¹	%	CT, MA, NY, NJ ¹	%	CT, MA, NY, NJ ¹	%	CT, MA, NY, NJ ¹	%	CT, MA, NY, NJ ¹	%
White male	2,290,176	77.93	3,543,426	91.79	2,558,097	74.26	1,491,241	66.29	9,882,940	79.11
Asian American	506,265	17.23	216,027	5.60	750,383	21.78	465,243	20.68	1,937,918	15.51
African American	38,720	1.32	3,075	0.08	19,920	0.58	0	0.00	61,715	0.49
Hispanic American	1,125	0.04	7,597	0.20	12,230	0.36	0	0.00	20,952	0.17
Native American	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Non-Designated										
MBE	2,500	0.09	10,310	0.27	2,200	0.06	3,625	0.16	18,635	0.15
MBE	548,610	18.67	237,009	6.14	784,733	22.78	468,868	20.84	2,039,220	16.32
WBE	17,430	0.59	5,350	0.14	7,370	0.21	272,318	12.11	302,468	2.42
Non-Designated										
M/WBE	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
M/WBE	566,040	19.26	242,359	6.28	792,103	22.99	741,186	32.95	2,341,688	18.74
SBE	82,407	2.80	74,453	1.93	94,743	2.75	17,183	0.76	268,786	2.15
Total	2,938,623	100.00	3,860,238	100.00	3,444,943	100.00	2,249,610	100.00	12,493,414	100.00

Source: The Metropolitan District Commission's Procurement Department; M³ Consulting

1 Relevant Market = States of Connecticut (CT), Massachusetts (MA), New York (NY) and New Jersey (NJ)

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Non-Professional Services Accounts Payable Data

From the accounts payables for MDC, over \$11.9 million was paid out to vendors within the four-state area. M/WBEs received \$2.4 million (20.89 percent of the total). Among MBEs, Asian American-owned firms received about 20.19 percent of the total dollars and African American- and Hispanic American-owned firms each received less than 0.20 percent. (Table 5.16)

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**Table 5.16: Dollars of Accounts Payable
Non-Professional by Fiscal Year;
Relevant Market, The Metropolitan District Commission, FY 2005-FY 2008**

Ethnicity	FY 2005		FY 2006		FY 2007		FY 2008		FY 2005-2008	
	CT, MA, NY, NJ ¹	%	CT, MA, NY, NJ ¹	%	CT, MA, NY, NJ ¹	%	CT, MA, NY, NJ ¹	%	CT, MA, NY, NJ ¹	%
White male	1,834,205	77.82	2,819,073	74.48	2,629,561	71.12	1,743,685	78.20	9,026,524	76.05
Asian American	416,788	17.68	860,849	22.74	653,537	21.80	465,243	20.87	2,396,417	20.19
African American	19,962	0.85	2,349	0.06	0	0.00	0	0.00	22,311	0.19
Hispanic American	5,000	0.21	1,157	0.03	6,560	0.15	0	0.00	12,717	0.11
Native American	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Non-Designated										
MBE	7,371	0.31	12,970	0.34	2,481	0.08	3,625	0.16	26,447	0.22
MBE	449,121	19.05	877,325	23.18	662,578	22.03	468,868	21.03	2,457,892	20.71
WBE	8,227	0.35	3,950	0.10	6,994	0.23	0	0.00	19,171	0.16
Non-Designated										
M/WBE	2,580	0.11	250	0.01	0	0.00	0	0.00	2,830	0.02
M/WBE	459,928	19.51	881,525	23.29	669,572	22.26	468,868	21.03	2,479,893	20.89
SBE	62,972	2.67	84,414	2.23	198,409	6.61	17,183	0.77	362,978	3.06
Total	2,357,105	100.00	3,785,012	100.00	3,497,542	100.00	2,229,736	100.00	11,869,395	100.00

Source: The Metropolitan District Commission's Procurement Department; M³ Consulting

1 Relevant Market = States of Connecticut (CT), Massachusetts (MA), New York (NY) and New Jersey (NJ)

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Non-Professional Services Prime + Subcontractor Contract Awards Data

Non-professional services contract information on MDC projects, maintained by the MDC The Procurement Services Unit, is summarized in Table 5.17. The relevant geographic area covered is the four-state area of CT, MA, NY and NJ.

Total awards to M/WBEs in non-professional services were \$660,725.00 over the period, FY 2005-2008, representing 23.55 percent; a majority of these contract dollars were from FY 2008. Asian American-, African American-, Hispanic American-owned firms and non-designated MBEs received some non-professional services awards, making up 20.70 percent for MBEs, WBEs obtained almost all of their dollars in FY 2005 at \$70,000 receiving no more than \$9,950 in FY 2008. Overall, WBEs received 2.85 percent in contract awards

Subcontractor Contract Awards Data

All subcontracting dollars were paid to M/WBEs for FY 2005-2008 in the amount of \$276,950. African American-owned firms received 10.83 percent and WBEs 28.87 percent of the awards. Non-designated MBEs received 60.30 percent of the awards (Tables 5.20)

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**Table 5.17: Prime + Subcontractor Dollars
Dollar Value of Contract Awards
Non-Professional Services by Fiscal Year;
Relevant Market, The Metropolitan District Commission, FY 2005-FY 2008**

Ethnicity	FY 2005		FY 2006		FY 2007		FY 2008		FY 2005-2008	
	CT, MA, NY, NJ ¹		CT, MA, NY, NJ ¹		CT, MA, NY, NJ ¹		CT, MA, NY, NJ ¹		CT, MA, NY, NJ ¹	
	\$	%	\$	%	\$	%	\$	%	\$	%
White male	473,209	62.00	99,532	54.30	667,795	100.00	808,616	67.88	2,049,152	73.04
Asian American	0	0.00	0	0.00	0	0.00	275,000	23.09	275,000	9.80
African American	0	0.00	0	0.00	0	0.00	30,000	2.52	30,000	1.07
Hispanic American	0	0.00	83,775	45.70	0	0.00	25,000	2.10	108,775	3.88
Native American	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Non-Designated										
MBE	167,000	21.88	0	0.00	0	0.00	0	0.00	167,000	5.95
MBE	167,000	21.88	83,775	45.70	0	0.00	330,000	27.70	580,775	20.70
WBE	70,000	9.17	0	0.00	0	0.00	9,950	0.84	79,950	2.85
Non-Designated										
M/WBE	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
M/WBE	237,000	31.05	83,775	45.70	0	0.00	339,950	28.54	660,725	23.55
SBE	53,050	6.95	0	0.00	0	0.00	42,678	3.58	95,728	3.41
Total	763,259	100.00	183,307	100.00	667,795	100.00	1,191,244	100.00	2,805,605	100.00

Source: The Metropolitan District Commission's Procurement Department; M³ Consulting

1 Relevant Market = States of Connecticut (CT), Massachusetts (MA), New York (NY) and New Jersey (NJ)

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**Table 5.18: Subcontractor Dollars
Dollar Value of Contract Awards
Non-Professional Services by Fiscal Year;
Relevant Market, The Metropolitan District Commission, FY 2005-FY 2008**

Ethnicity	FY 2005		FY 2006		FY 2007		FY 2008		FY 2005-2008	
	CT, MA, NY, NJ ¹	%	CT, MA, NY, NJ ¹	%	CT, MA, NY, NJ ¹	%	CT, MA, NY, NJ ¹	%	CT, MA, NY, NJ ¹	%
White male	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Asian American	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
African American	0	0.00	0	0.00	0	0.00	30,000	75.09	30,000	10.83
Hispanic American	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Native American	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Non-Designated	167,000	70.46	0	0.00	0	0.00	0	0.00	167,000	60.30
MBE	167,000	70.46	0	0.00	0	0.00	30,000	75.09	197,000	71.13
WBE	70,000	29.54	0	0.00	0	0.00	9,950	24.91	79,950	28.87
Non-Designated M/WBE	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
M/WBE	237,000	100.00	0	0.00	0	0.00	39,950	100.00	276,950	100.00
SBE	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Total	237,000	100.00	0	0.00	0	0.00	39,950	100.00	276,950	100.00

Source: The Metropolitan District Commission's Procurement Department; M³ Consulting

1 Relevant Market = States of Connecticut (CT), Massachusetts (MA), New York (NY) and New Jersey (NJ)

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GOODS & SUPPLIES

In the area of Goods & Supplies, M/WBE utilization is presented in this section using purchase order, payments and contracts data. The relevant market for Good & Supplies is the four-state area of CT, MA, NY and NJ.

Goods & Supplies Purchase Order Awards Data

Within the four-state area, M/WBEs overall received only 2.68 percent of the total of \$40.5 million in purchase order payments that were made for the period. No M/WBE group received more than 1.5 percent of the total dollars. SBEs received 6.59 percent of the dollars.

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Table 5.19: Dollars of Purchase Order Payments

Goods & Supplies by Fiscal Year;

Relevant Market, The Metropolitan District Commission, FY 2005-FY 2008

Ethnicity	FY 2005		FY 2006		FY 2007		FY 2008		FY 2005-2008	
	CT, MA, NY, NJ ¹		CT, MA, NY, NJ ¹		CT, MA, NY, NJ ¹		CT, MA, NY, NJ ¹		CT, MA, NY, NJ ¹	
	\$	%	\$	%	\$	%	\$	%	\$	%
White male	7,484,614	96.80	10,973,630	94.08	9,654,522	85.39	8,697,561	88.12	36,810,327	90.73
Asian American	0	0.00	0	0.00	0	0.00	88,922	0.90	88,922	0.22
African American	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Hispanic American	0	0.00	523,300	4.49	20,729	0.18	0	0.00	544,029	1.34
Native American	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Non-Designated										
MBE	2,386	0.03	0	0.00	91,430	0.81	38,821	0.39	132,637	0.33
MBE	2,386	0.03	523,300	4.49	112,159	0.99	127,743	1.29	765,588	1.89
WBE	25,880	0.33	13,045	0.11	69,447	0.61	100,400	1.02	208,772	0.51
Non-Designated										
M/WBE	0	0.00	0	0.00	0	0.00	112,944	1.14	112,944	0.28
M/WBE	28,266	0.37	536,345	4.60	181,606	1.61	341,087	3.46	1,087,304	2.68
SBE	218,865	2.83	153,818	1.32	1,470,363	13.00	831,594	8.43	2,674,640	6.59
Total	7,731,745	100.00	11,663,793	100.00	11,306,491	100.00	9,870,242	100.00	40,572,271	100.00

Source: The Metropolitan District Commission's Procurement Department; M³ Consulting

¹ Relevant Market = States of Connecticut (CT), Massachusetts (MA), New York (NY) and New Jersey (NJ)

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Goods & Supplies Accounts Payable Data

Over \$37.2 million was made in payments by MDC over the FY 2005-2008 to vendors within the four-state area of CT, MA, NY and NJ. M/WBE dollars received \$610,988 (1.64 percent). No MBE group or WBE group received over 1 percent of the dollars. (Table 5.20)

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**Table 5.20: Dollars of Accounts Payable
Goods & Supplies by Fiscal Year;
Relevant Market, The Metropolitan District Commission, FY 2005-FY 2008**

Ethnicity	FY 2005		FY 2006		FY 2007		FY 2008		FY 2005-2008	
	State of CT ¹		State of CT ¹		State of CT ¹		State of CT ¹		State of CT ¹	
	\$	%	\$	%	\$	%	\$	%	\$	%
White male	6,100,997	96.89	8,317,215	97.26	9,743,770	95.28	11,071,880	90.37	35,233,862	94.68
Asian American	0	0.00	0	0.00	60	0.00	88,922	0.73	88,982	0.24
African American	46,067	0.73	52,284	0.61	322	0.00	0	0.00	98,673	0.27
Hispanic American	10,537	0.17	11,663	0.14	28,618	0.37	0	0.00	50,818	0.14
Native American	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Non-Designated	4,685	0.07	1,000	0.01	5,182	0.07	38,821	0.32	49,688	0.13
MBE	61,289	0.97	64,947	0.76	34,182	0.44	127,743	1.04	288,161	0.77
WBE	35,170	0.56	28,357	0.33	40,675	0.52	105,301	0.86	209,503	0.56
Non-Designated M/WBE	50	0.00	0	0.00	330	0.00	112,944	0.92	113,324	0.30
M/WBE	96,509	1.53	93,304	1.09	75,187	0.96	345,988	2.82	610,988	1.64
SBE	99,390	1.58	140,790	1.65	293,465	3.75	834,312	6.81	1,367,957	3.68
Total	6,296,896	100.00	8,551,309	100.00	10,112,422	100.00	12,252,180	100.00	37,212,807	100.00

Source: The Metropolitan District Commission's Procurement Department; M³ Consulting

¹ Relevant Market = State of Connecticut

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Goods & Supplies Prime + Subcontracting Contract Awards Data

Tables 5.21 summarize the contract information on MDC goods & supplies projects, maintained by the MDC The Procurement Services Unit. MDC awarded contracts for over \$21.9 million for the period, FY 2005-2008 in the four-state of CT, MA, NY, NJ. White male-owned firms received 92.69 percent over the period FY 2005-2008. MBEs received 0.00 percent and WBEs received 0.41 percent of the total dollars within the four-state area.

Subcontracting Contract Awards Data

There were no subcontracting activities in Goods & Supplies.

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Table 5.21: Prime + Subcontractor Dollars

Dollar Value of Contract Awards

Goods & Supplies by Fiscal Year;

Relevant Market, The Metropolitan District Commission, FY 2005-FY 2008

Ethnicity	FY 2005		FY 2006		FY 2007		FY 2008		FY 2005-2008	
	CT, MA, NY, NJ ¹	%	CT, MA, NY, NJ ¹	%	CT, MA, NY, NJ ¹	%	CT, MA, NY, NJ ¹	%	CT, MA, NY, NJ ¹	%
White male	6,051,054	97.07	6,205,756	98.81	5,045,827	77.57	3,076,179	97.49	20,378,816	92.69
Asian American	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
African American	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Hispanic American	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Native American	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Non-Designated	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
MBE	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
MBE	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
WBE	0	0.00	0	0.00	51,782	0.91	37,525	1.19	89,307	0.41
Non-Designated	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
M/WBE	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
M/WBE	0	0.00	0	0.00	51,782	0.91	37,525	1.19	89,307	0.41
SBE	182,402	2.93	74,795	1.19	1,218,463	21.51	41,726	1.32	1,517,386	6.90
Total	6,233,456	100.00	6,280,551	100.00	6,316,072	100.00	3,155,430	100.00	21,985,509	100.00

Source: The Metropolitan District Commission's Procurement Department; M³ Consulting

1. Relevant Market = States of Connecticut (CT), Massachusetts (MA), New York (NY) and New Jersey (NJ)

5.3 Threshold Analysis

M³ Consulting conducted threshold analyses to determine the effects of capacity as it relates to M/WBE utilization. For the smaller dollar value contracts, less than \$25,000, the level of M/WBE participation is anticipated to be larger than at the higher threshold values. At the higher threshold values, capacity can become an issue.

PRIME CONTRACT THRESHOLDS

The prime contract threshold tables, included in Appendix A, present the threshold tables for prime contractors by industry type. Because of the lack of White male subcontractor data, thresholds were not calculated for subcontracts.

For the overall counts, there was no M/WBE participation above \$1- \$3 million, except in the threshold of \$20 million+. This reflected a contract awarded to a NJ-based Hispanic American-owned firm in 2008. White male-owned firms were represented up to \$5-\$10 million. The limit on White male-owned firm participation may reflect the upper limit on the size of MDC contract opportunities. As such, within the four-state area, to date, MDC has contracted with only one firm with the known capacity to perform contracts above \$10 million.

While this may raise an inference of lack of capacity on the part of M/WBEs, the recent award to a Hispanic American-owned firm suggests that procurement processes and outreach may also be a significant factor impacting M/WBE involvement in MDC opportunities. Observations made by industry category are below:

For A&E, there is no M/WBE participation in any threshold above \$50K-\$250K. Although not in every threshold, White male-owned firms are represented up to \$5 - \$10 million.

For construction, M/WBEs had greater representation in the thresholds from \$250- \$750K to \$1- \$3 million, than in the lower thresholds. M/WBE participation in these thresholds were largely driven by WBE participation, which was higher than MBE participation by almost a 2:1 margin. White male-owned firms were represented up to \$5- \$10 million.

In professional services, African American-owned firms were represented in the threshold category of \$50- \$250K. There was no other M/WBE participation. White male-owned firms were represented in

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most thresholds, up to \$3 - \$5 million. There was no WBE representation at the prime contracting level.

For non-professional services, M/WBEs and White male-owned firms had some participation up to \$250- \$700K. There are no prime contracts on any higher level thresholds in non-professional services.

On goods & supplies, M/WBEs had small levels of participation up to \$250- \$700K. There is no participation by M/WBEs in any other thresholds. While not represented in every threshold, White male-owned firms received contracts up to and including the \$1- \$3 million threshold.

5.4 Top Ten Analysis

The purpose of this top ten analysis is two-fold. The first purpose is to see any pattern of race/gender/ethnic distribution of dollars among the top ten awardees/payees and across procurement types. The second purpose is to compare the bidders to awardees to see how frequently the top ten bidders fall into the top ten awardee categories as well. This would provide some inference of firm success in the bidding process.

The following observations are made for each industry category:

- In A&E, other than one Asian-owned firm that bid thrice, the top ten bidders were only White male-owned firms. Except for one bidder, all bidders were from within the State of CT.

One firm dominated A&E services, with nine awards out of a total of 29, representing 31.03 percent of awards. Compared to the bids, this firm bid 12 times and was successful nine times, giving them a 75 percent success rate.

The Asian American-owned firm on the top ten bidders' list bid three times and won one award over the study period, resulting in a 33 percent success rate.

- The top bidder in construction with 31 bids has been a WBE from within the State of CT. Of the top ten bidders, three were MBE firms and one was a SBE for the FY 2005-2008.

The top 10 awardees for construction represented 39.63 percent of 111 awards and 12.64 percent of the total number of construction bids received by MDC. The top 10 consisted of three White male-owned firms, one WBE, two Hispanic American-owned firms, one African American-owned firm, two SBEs and one non-designated MBE.

One of the Hispanic American-owned firms who was among the top ten bidders, won 27.27 percent of the bids it submitted to MDC. It also accounted for 5.23 percent of the total bids received by MDC for construction services. The African American-owned firm on the top ten had a success rate of 42.85 percent as they bid 7 times and obtained 3 awards. The WBE won 33 percent of bids it submitted.

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- With the exception of one African American-owned firm from within the State, who bid three times for professional services contracts, the rest of the professional service bidders were all White male-owned firms.

The #1 prime awardee in professional services received six awards, representing 15.36 percent of 39 awards.

Comparing bids to awards, the firm had a 75 percent success rate over the period. There were two African American-owned firms in the top ten awardees. The remainder were White male-owned firms. One of the African American-owned firms that was on the top ten bidders was successful 66 percent of the times.

- Three MBEs and one SBE from within the State of CT bid for non-professional service contracts. With the exception of one firm, all the top ten bidders were from within the State of CT.

For non-professional services, in the top ten awardees were four White male-owned firms, one Hispanic American-owned firm, one Asian American-owned firm, three SBEs and one non-designated MBE.

The #1 prime awardee which was White male owned received 10 percent of 40 awards and was successful in 80 percent of its bids. The only M/WBEs (Hispanic American-owned) that made it to the top ten awardee firms had a 33 percent success rate.

- For procurement of goods & services for MDC, the top ten bidders do not include any M/WBEs.

Goods & supplies' top ten awardees consisted of all White males, except for one SBE. These firms received 26.99 percent of 215 awards.

Among the top five of the bidders in this category, those that were successful ranged from a 33 percent success rate in winning awards up to 74 percent over the period.

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5.5 Conclusions

Based on both POs, direct payments and contract awards, WBE utilization ranges from 0 percent to 16.5 percent and MBE utilization seems a bit larger in the range of 0.03 percent to 28 percent overall.

A&E utilization of M/WBEs is from 0.03 percent to 12.5 percent, while in construction the range is between 24 and 39 percent. In professional Services, M/WBE utilization barely exceeds 12.0 percent, and is as low as 3 percent. On the other hand, as in the case of construction, non-professional services show higher levels of M/WBE utilization at between 19 and 24 percent. M/WBE utilization in goods and supplies is the lowest of all procurement types, and never exceeds 2.6 percent. (Table 5.22)

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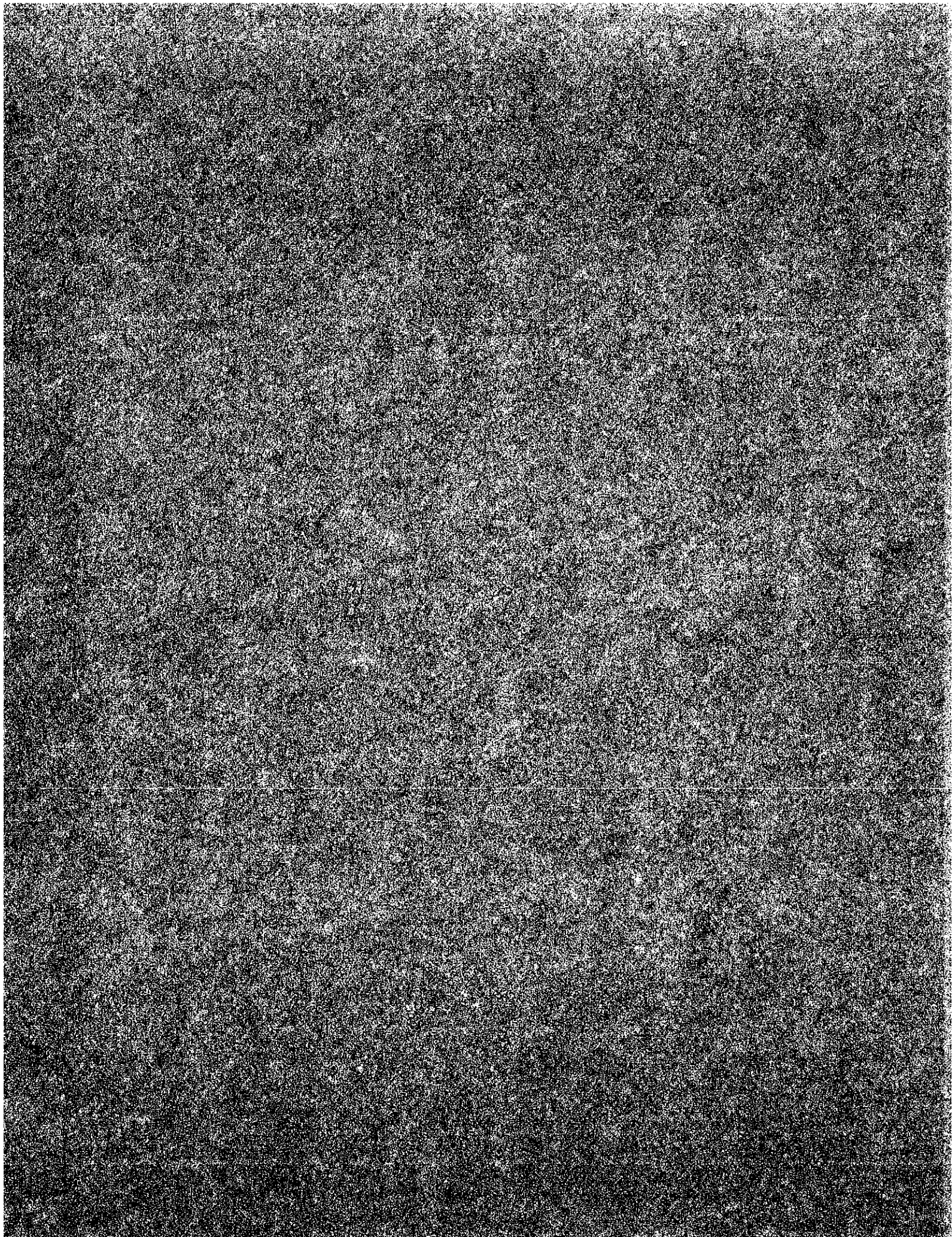
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Table 5.22: M/WBE Utilization in Percent of Dollars of Purchase Orders, Payables and Contracts State of CT and States of CT, MA, NY and NJ Summary of M/WBE Utilization The Metropolitan District Commission										
Procurement Category	M/WBE Utilization Based on Dollar Value of Purchase Orders			M/WBE Utilization Based on Accounts Payables			M/WBE Utilization Based on Contract Dollars			
	(In percent)			(In percent)			(In percent)			
	MBE	WBE	M/WBE	MBE	WBE	M/WBE	MBE	WBE	M/WBE	M/WBE
A&E ¹	0.06	0.00	0.06	0.03	0.00	0.03	9.49	2.98	12.47	
Construction ²	8.66	15.26	23.92	10.11	16.46	26.57	28.19	11.26	39.44	
Professional Services ¹	2.76	0.23	3.09	2.87	0.34	3.25	8.78	3.47	12.26	
Nonprofessional Services ²	16.32	2.42	18.74	20.71	0.16	20.89	20.7	2.85	23.55	
Goods and Supplies ²	1.89	0.51	2.68	0.77	0.56	1.64	0.00	0.41	0.41	

Source: The Metropolitan District Commission's Procurement Department; M³ Consulting

¹ Relevant Market = State of Connecticut

² Relevant Market = States of Connecticut (CT), Massachusetts (MA), New York (NY) and New Jersey (NJ)



Chapter 6: Disparity with Capacity and Regression Analysis

6.1 Introduction

This chapter begins by reporting the statistical evidence of disparities between M/WBE availability in the relevant market of The Metropolitan District Commission (MDC) and M/WBE utilization in contract awards. Disparities are analyzed in the industry categories of architecture & engineering, construction, professional services, non-professional services and goods & supplies.

This chapter further examines whether firm capacity contributed in any way to the disparities observed. The purpose of this analysis is to determine whether, after accounting for any differences in the capacity of firms, race and gender is a contributing factor to any disparities found.

6.2 Disparity Ratios

M³ Consulting presents the disparity ratios for MDC's *Ready, Willing and Able (RWASM)* availability. For all industries, *RWASM* availability will consist of firms that have bid for prime contracts awarded by MDC during the study period; firms to which MDC has awarded prime contracts during the study period; and, firms to which MDC prime contractors have awarded subcontracts during the study period.

Utilization for each industry is measured via purchase order, accounts payables and contract award data as maintained by the MDC's procurement department. The utilization percentage used to calculate the disparity ratios are based on formal and informal purchases by race and gender.

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DISPARITY RATIOS METHODOLOGY

Disparity ratios compare the percentage utilization of various race and gender groups to the percentage availability of these same groups. The disparity ratio is calculated by dividing the former percentage by the latter. A resulting ratio greater than one indicates overutilization or no underutilization; conversely, a ratio less than one indicate underutilization. The methodologies for calculating availability, utilization and disparity, specifically for this study are presented in Chapter III, Statistical Methodology. The measure of availability used to calculate disparity is the MDC *RWA*SM availability, Level 3, consisting of bidders, prime awardees and sub awardees.

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6.3 Disparities in Architecture & Engineering

ACCOUNTS PAYABLE UTILIZATION VS. RWASM AVAILABILITY LEVEL 3

In A&E based on accounts payables, MBEs and WBEs were significantly underutilized, while White male-owned firms were significantly overutilized. SBEs were underutilized as well. The result for M/WBEs was created by low utilization or no utilization of M/WBEs in some years.

Table 6.1. Accounts Payable Utilization vs. RWASM Availability Level 3
Architecture & Engineering
State of Connecticut
The Metropolitan District Commission; FY 2005-FY 2008

Ethnicity	2005	2006	2007	2008	Period
White male	1.28*	1.29*	1.29*	1.29*	1.29*
Asian American	0.00	0.00**	0.00**	0.00**	0.00**
African American	0.06	0.01**	0.00**	0.00**	0.01**
Hispanic American	0.00	0.00**	0.00**	0.00**	0.00**
Native American	ND	ND	ND	ND	ND
Non-Designated MBE	0.00**	0.00**	0.00**	0.00**	0.00**
MBE	0.02**	0.00**	0.00**	0.00**	0.00**
WBE	0.00**	0.00**	0.00**	0.00**	0.00**
Non-Designated M/WBE	0.00**	0.00**	0.00**	0.00**	0.00**
M/WBE	0.01**	0.00**	0.00**	0.00**	0.00**
SBE	0.17**	0.02	0.01**	0.03**	0.04**

Source: The MDC Financial Management System, MDC Contract Bidders, Contracts bidder 05-07, PMU awardees-no bidders, RFP bidders, Winning bidders, PMU Sub Awardees, Sub Awardees, 2008 Data and PO 2005-2007 INV; M³ Consulting

*Significant and Disparity Ratio is Greater than 1; Overutilized

**Significant and Disparity Ratio is Less than 1; Underutilized

ND: Not Defined

Contract Award Utilization vs. RWASM Availability Level 3

Since many of the A&E purchases are done both informally and formally, Level 3 availability which measures bidders and prime and sub awardees appears to be the best comparison to this measure of utilization.

Based on contract award data, the results of disparity ratios show that MBEs and WBEs are underutilized. These results, however, do not reach statistical significance. Non-designated MBE-owned firms are overutilized in FY 2005 and FY 2006 followed by no utilization of these firms for the next two years causing overutilization for the period. Due to the low availability of non-designated MBEs and the high utilization of one particular firm at the subcontractor level, non-designated MBEs are overutilized. Hispanic Americans are overutilized in FY 2008 following no utilization or very low utilization for the first three years in the study period. The overutilization by this MBE group does not reach statistical significance implying therefore no deliberate attempt in their selection (Table 6.7).

The overutilization of Hispanic American-owned firms in FY 2008 is at the subcontractor level and not the prime contractor level. A White male-owned prime contractor utilized two Hispanic American-owned firms as subcontractors to perform survey services in FY 2008. Other than these two subcontracts, there is no utilization of Hispanic American-owned firms at the prime or sub level.

There are a total of five Hispanic-owned firms available in the relevant market, accounting for 4.1 percent of total available firms. Since Hispanic American-owned firms' utilization is 6.5 percent of the total contract awards, due to these two subcontracts, this group appears to be overutilized. It is to be noted that while Hispanic American-owned firms show overutilization, they are in fact not utilized at the prime contractor level in any of the years in the study period.

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Table 6.2. Contracts Utilization vs. RWASM Availability Level 3
Architecture & Engineering
State of Connecticut
The Metropolitan District Commission; FY 2005-FY 2008

Ethnicity	2005	2006	2007	2008	Period
White male	1.19	1.16	1.20	1.06	1.13*
Asian American	0.85	0.24	0.75	0.32	0.44
African American	0.10	0.00	0.00	0.00	0.01
Hispanic American	0.00	0.19	0.00	3.38	1.34
Native American	ND	ND	ND	ND	ND
Non-Designated MBE	3.19*	8.89*	0.00**	0.00**	3.14*
MBE	0.50	0.77	0.21	1.30	0.83
WBE	0.35	0.26	0.79	0.50	0.46
Non-Designated M/WBE	0.00**	0.00**	0.00**	0.00**	0.00**
M/WBE	0.42	0.56	0.41	0.96	0.67
SBE	0.00	0.00**	0.00	0.00**	0.00**

Source: The MDC Financial Management System, MDC Contract Bidders, Contracts bidder 05-07, PMU awardees-no bidders, RFP bidders, Winning bidders, PMU Sub Awardees, Sub Awardees, 2008 Data and PO 2005-2007 INV; M³ Consulting

*Significant and Disparity Ratio is Greater than 1; Overutilized

**Significant and Disparity Ratio is Less than 1; Underutilized

ND: Not Defined

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Purchase Orders Utilization vs. RWASM Availability Level 3

Utilization of M/WBEs is significantly underutilized if measured by A&E Purchase orders compared with Level 3 availability. All MBE groups and WBEs are underutilized significantly.

Table 6.3. Purchase Orders Utilization vs. RWASM Availability Level 3
Architecture & Engineering
State of Connecticut
The Metropolitan District Commission; FY 2005-FY 2008

Ethnicity	2005	2006	2007	2008	Period
White male	1.29*	1.29*	1.29*	1.29*	1.29*
Asian American	0.00	0.00	0.00	0.00**	0.00**
African American	0.03	0.01	0.00	0.00**	0.01**
Hispanic American	0.00	0.02	0.00	0.00**	0.01**
Native American	ND	ND	ND	ND	ND
Non-Designated MBE	0.00**	0.00**	0.00**	0.00**	0.00**
MBE	0.01**	0.01**	0.00	0.00**	0.01**
WBE	0.00	0.00**	0.00	0.00**	0.00**
Non-Designated M/WBE	0.00**	0.00**	0.00**	0.00**	0.00**
M/WBE	0.01**	0.01**	0.00**	0.00**	0.00**
SBE	0.08	0.00**	0.00**	0.03**	0.02**

Source: The MDC Financial Management System, MDC Contract Bidders, Contracts bidder 05-07, PMU awardees-no bidders, RFP bidders, Winning bidders, PMU Sub Awardees, Sub Awardees, 2008 Data and PO 2005-2007 INV; M³ Consulting

*Significant and Disparity Ratio is Greater than 1; Overutilized

**Significant and Disparity Ratio is Less than 1; Underutilized

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DISPARITIES IN CONSTRUCTION

Accounts Payable Utilization vs. *RWASM* Availability Level 3

For the period, Hispanic American-owned firms, non-designated MBEs and WBEs are overutilized based on the accounts payables measure of construction utilization and Level 3 availability. Asian American- and African American-owned firms are significantly underutilized.

Table 6.4. Accounts Payable Utilization vs. *RWASM* Availability Level 3
Construction
Four-State Area of Connecticut (CT), Massachusetts (MA), New York (NY) and New Jersey (NJ)
The Metropolitan District Commission; FY 2005-FY 2008

Ethnicity	2005	2006	2007	2008	Period
White male	1.20*	0.65**	0.90**	1.10*	0.93**
Asian American	0.00	0.00	1.18	0.00	0.35**
African American	0.17**	0.12**	0.05**	0.00**	0.07**
Hispanic American	1.60*	2.22*	2.77*	0.42**	1.82*
Native American	0.00	0.00	0.00	0.00	0.00**
Non-Designated MBE	0.00**	0.00**	0.01**	7.89*	1.57*
MBE	0.65**	0.84	1.05	0.97	0.86**
WBE	0.14**	3.62*	2.63*	0.94	2.09*
Non-Designated M/WBE	ND	ND	ND	ND	ND
M/WBE	0.45**	1.95*	1.68*	0.96	1.35*
SBE	0.40	2.04	0.09	0.04**	0.71**

Source: The MDC Financial Management System, MDC Contract Bidders, Contracts bidder 05-07, PMU awardees-no bidders, RFP bidders, Winning bidders, PMU Sub Awardees, Sub Awardees, 2008 Data and PO 2005-2007 INV; M³ Consulting

*Significant and Disparity Ratio is Greater than 1; Overutilized

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Contract Award Utilization vs. RWASM Availability Level 3

M/WBEs and SBEs are significantly overutilized in construction. For MBEs, this is largely due to Hispanic American-owned firms. Hispanic American-owned firms were not utilized in FY 2007 and were significantly overutilized for the remaining years. WBEs are significantly overutilized in all years, except FY 2006. The majority of the available Hispanic American-owned firms and WBEs in Level 3 are at the subcontractor level.

Table 6.5. Contracts Utilization vs. RWASM Availability Level 3
Construction
Four-State Area of Connecticut (CT), Massachusetts (MA), New York (NY) and New Jersey (NJ)
The Metropolitan District Commission; FY 2005-FY 2008

Ethnicity	2005	2006	2007	2008	Period
White male	0.88	0.88	0.94	0.52**	0.69**
Asian American	0.43	0.00	0.00	0.00	0.12
African American	0.17	0.19	0.00	0.47	0.37**
Hispanic American	1.64	4.29*	0.00	9.43*	7.48*
Native American	0.00	0.00	0.00	0.00	0.00
Non-Designated MBE	0.95**	5.73*	0.00**	0.25**	0.48**
MBE	0.78	2.21*	0.00	3.59*	2.30*
WBE	1.74	0.74	1.39	1.48	2.60*
Non-Designated M/WBE	ND	ND	ND	ND	0.00**
M/WBE	1.16	1.62	0.56	2.75*	2.31*
SBE	1.86	0.47**	2.95	1.10*	1.28*

Source: The MDC Financial Management System, MDC Contract Bidders, Contracts bidder 05-07, PMU awardees-no bidders, RFP bidders, Winning bidders, PMU Sub Awardees, Sub Awardees, 2008 Data and PO 2005-2007 INV; M³ Consulting

*Significant and Disparity Ratio is Greater than 1; Overutilized

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Purchase Orders Utilization vs. RWASM Availability Level 3

When utilization is measured via purchase orders instead of contracts, we find similar results with M/WBEs significantly overutilized. Hispanic American-owned firms, Non-designated MBEs and WBEs largely contribute to this overutilization.

Table 6.6. Purchase Orders Utilization vs. RWASM Availability Level 3
Construction
Four-State Area of Connecticut (CT), Massachusetts (MA), New York (NY) and New Jersey (NJ)
The Metropolitan District Commission; FY 2005-FY 2008

Ethnicity	2005	2006	2007	2008	Period
White male	0.72**	0.99	1.17*	1.10*	0.97
Asian American	0.00	0.00	1.40	0.00	0.35
African American	0.01**	0.01**	0.01**	0.00**	0.01**
Hispanic American	1.03	3.08*	1.62	0.42**	1.60*
Native American	0.00	0.00	0.00	0.00	0.00
Non-Designated MBE	0.00**	0.00**	0.01**	7.90*	1.43*
MBE	0.37**	1.09	0.64	0.97	0.73**
WBE	3.64*	1.72*	0.77	0.94	1.94*
Non-Designated M/WBE	ND	ND	ND	ND	ND
M/WBE	1.68*	1.35*	0.69	0.96	1.22*
SBE	2.12	0.05	0.01	0.04**	0.68**

Source: The MDC Financial Management System, MDC Contract Bidders, Contracts bidder 05-07, PMU awardees-no bidders, RFP bidders, Winning bidders, PMU Sub Awardees, Sub Awardees, 2008 Data and PO 2005-2007 INV; M³ Consulting

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DISPARITIES IN PROFESSIONAL SERVICES

Accounts Payable Utilization vs. RWASM Availability Level 3

Asian American- and Hispanic American-owned firms were significantly underutilized, while African American-owned firms are overutilized. The results for African American-owned firms were not significant for the period. Overutilization of African American-owned firms is largely due to FY 2008, where African American-owned firms are overutilized, while in the earlier three years the result was the exact opposite with significant underutilization of African American-owned firms. One African American-owned firm performed services in FY 2008 that resulted in the overutilization of that group. African American-owned professional service firms did not receive any payments in other years of the study period.

Table 6.7. Accounts Payable Utilization vs. RWASM Availability Level 3
Professional Services
State of Connecticut
The Metropolitan District Commission; FY 2005-FY 2008

Ethnicity	2005	2006	2007	2008	Period
White male	1.12*	1.15*	1.14*	1.05*	1.11*
Asian American	0.00	0.00**	0.07**	0.72	0.23**
African American	0.15**	0.07**	0.07**	3.65*	1.14
Hispanic American	0.00**	0.01**	0.21**	0.32	0.16**
Native American	ND	ND	ND	ND	ND
Non-Designated MBE	0.03**	0.00**	0.00**	0.00**	0.00**
MBE	0.07**	0.03**	0.12**	1.81*	0.58**
WBE	0.45**	0.01**	0.00**	0.14**	0.11**
Non-Designated M/WBE	0.00**	0.00**	0.00**	0.52**	0.16**
M/WBE	0.21**	0.02**	0.07**	1.14	0.39**
SBE	0.38	0.23	0.28	0.05**	0.21**

Source: The MDC Financial Management System, MDC Contract Bidders, Contracts bidder 05-07, PMU awardees-no bidders, RFP bidders, Winning bidders, PMU Sub Awardees, Sub Awardees, 2008 Data and PO 2005-2007 INV; M³ Consulting

*Significant and Disparity Ratio is Greater than 1; Overutilized

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Contract Award Utilization vs. RWASM Availability Level 3

Based on contract award data on professional services, M/WBEs are underutilized but the results do not reach significance. African American-owned firms are significantly overutilized for FY 2008, due to one firm that performed services in this fiscal year. No other African American-owned professional service firms in FY 2008 or any other year in the study period received any contract awards. Hence, the overutilization of African American-owned firms may not be a pattern that exists with regard to professional service awards. Hispanic American-owned firms are overutilized for FY 2008, but the result is not statistically significant. Asian American-owned firms and WBEs are not utilized in any of the years except FY 2007 when they are overutilized, primarily due to the subcontract awards to these groups.

Table 6.8. Contracts Utilization vs. RWASM Availability Level 3
Professional Services
State of Connecticut
The Metropolitan District Commission; FY 2005-FY 2008

Ethnicity	2005	2006	2007	2008	Period
White male	1.17	1.17	0.52	0.86	1.02
Asian American	0.00	0.00	31.82*	0.00	3.63
African American	0.00	0.00	2.78	11.43*	2.83
Hispanic American	0.00	0.00	0.00	1.26	0.28
Native American	ND	ND	ND	ND	ND
Non-Designated MBE	0.00**	0.00**	0.00**	0.00**	0.00**
MBE	0.00	0.00	5.20*	5.47*	1.79
WBE	0.00	0.00	9.94*	0.00	1.13
Non-Designated M/WBE	0.00**	0.00**	0.00**	0.00**	0.00**
M/WBE	0.00	0.00	6.76*	3.24*	1.48
SBE	0.00**	0.00**	0.00	0.00**	0.00**

Source: The MDC Financial Management System, MDC Contract Bidders, Contracts bidder 05-07, PMU awardees-no bidders, RFP bidders, Winning bidders, PMU Sub Awardees, Sub Awardees, 2008 Data and PO 2005-2007 INV; M³ Consulting

*Significant and Disparity Ratio is Greater than 1; Overutilized

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Purchase Orders Utilization vs. RWASM Availability Level 3

Purchase orders measuring utilization shows significant underutilization of MBEs and WBEs for the period and most of the years in the study period. SBEs are also underutilized. White male-owned firms are overutilized every year except for FY 2008 where they are at parity. Hispanic American-owned firms are significantly underutilized over the period but not in any of the years. There were two POs in 2005, zero in 2006, one in 2007 and seven in 2008. African American-owned firms are significantly overutilized in FY 2008, but not for the period.

Table 6.9. Purchase Orders Utilization vs. RWASM Availability Level 3
Professional Services
State of Connecticut
The Metropolitan District Commission; FY 2005-FY 2008

Ethnicity	2005	2006	2007	2008	Period
White male	1.15*	1.15*	1.15*	1.03	1.12*
Asian American	0.00	0.00	0.00	0.87	0.21
African American	0.16	0.00	0.03	4.39*	1.13
Hispanic American	0.00	0.00	0.11	0.39	0.12**
Native American	ND	ND	ND	ND	ND
Non-Designated MBE	0.00**	0.00**	0.00**	0.00**	0.00**
MBE	0.07**	0.00**	0.06**	2.17*	0.56**
WBE	0.10**	0.00**	0.07**	0.17	0.08**
Non-Designated M/WBE	0.00**	0.00**	0.69**	0.62**	0.29**
M/WBE	0.08**	0.00**	0.08**	1.38	0.37**
SBE	0.20**	0.30	0.18	0.06**	0.20**

Source: The MDC Financial Management System, MDC Contract Bidders, Contracts bidder 05-07, PMU awardees-no bidders, RFP bidders, Winning bidders, PMU Sub Awardees, Sub Awardees, 2008 Data and PO 2005-2007 INV; M³ Consulting

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DISPARITIES IN NON-PROFESSIONAL SERVICES

Accounts Payable Utilization vs. RWASM Availability Level 3

African American-, Hispanic American-owned firms and WBEs are significantly underutilized in all of the four years of the study period. Asian American-owned firms are overutilized in every year of the study. In non-professional services, one Asian American-owned firm provides the same services every year. Non-designated MBEs and SBEs are significantly underutilized. Since non-professional services are largely performed at the informal level, the impact of this one contract may not be observed in utilization based on formal contracting and subcontracting, but in accounts payable and purchase orders we observe this pattern since these measures capture payments.

Table 6.10. Payable Utilization vs. RWASM Availability Level 3

Non-professional Services Accounts

Four-State Area of Connecticut (CT), Massachusetts (MA), New York (NY) and New Jersey (NJ)

The Metropolitan District Commission; FY 2005-FY 2008

Ethnicity	2005	2006	2007	2008	Period
White male	0.89**	0.85**	0.81**	0.89**	0.87**
Asian American	41.02*	52.76*	50.58*	48.42*	46.84*
African American	0.49**	0.03**	0.00**	0.00**	0.11**
Hispanic American	0.16**	0.02**	0.12**	0.00	0.09**
Native American	ND	ND	ND	ND	ND
Non-Designated MBE	1.44*	1.58*	0.37**	0.74**	1.02*
MBE	5.20*	6.32*	6.01*	5.74*	5.65*
WBE	0.12**	0.03**	0.08**	0.00**	0.05**
Non-Designated M/WBE	ND	ND	ND	ND	ND
M/WBE	2.92*	3.48*	3.33*	3.15*	3.13*
SBE	0.48	0.51	1.18*	0.14**	0.55**

Source: The MDC Financial Management System, MDC Contract Bidders, Contracts bidder 05-07, PMU awardees-no bidders, RFP bidders, Winning bidders, PMU Sub Awardees, Sub Awardees, 2008 Data and PO 2005-2007 INV; M³ Consulting

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Contract Award Utilization vs. RWASM Availability Level 3

Asian American-owned firms are significantly overutilized over the course of the study period, but reach significance only in FY 2008. Hispanic American- and African American-owned firms are underutilized in all years except FY 2008 when they are overutilized. The results for the period do not reach significance.

Table 6.11. Contracts Utilization vs. RWASM Availability Level 3

Non-professional Services

Four-State Area of Connecticut (CT), Massachusetts (MA), New York (NY) and New Jersey (NJ)

The Metropolitan District Commission; FY 2005-FY 2008

Ethnicity	2005	2006	2007	2008	Period
White male	0.71**	0.62**	1.14	0.77**	0.83**
Asian American	0.00	0.00	0.00	53.57*	22.74*
African American	0.00	0.00	0.00	1.46	0.62
Hispanic American	0.00	35.34*	0.00	1.62	3.00
Native American	ND	ND	ND	ND	ND
Non-Designated MBE	101.52*	0.00**	0.00**	0.00**	27.61*
MBE	5.97*	12.47*	0.00	7.56*	5.65*
WBE	3.04*	0.00	0.00	0.28	0.94
Non-Designated M/WBE	ND	ND	ND	ND	ND
M/WBE	4.65*	6.84*	0.00	4.27*	3.52*
SBE	1.24	0.00**	0.00	0.64**	0.61**

Source: The MDC Financial Management System, MDC Contract Bidders, Contracts bidder 05-07, PMU awardees-no bidders, RFP bidders, Winning bidders, PMU Sub Awardees, Sub Awardees, 2008 Data and PO 2005-2007 INV; M³ Consulting

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Purchase Orders Utilization vs. RWASM Availability Level 3

Asian American-owned firms are significantly overutilized, while African American- and Hispanic American-owned firms are significantly underutilized. WBEs are underutilized for the period as well, but the results are not statistically significant. Non-designated MBEs and SBEs are significantly underutilized.

As explained under accounts payables, one Asian American-owned firm provides services every year. This MBE group, however, appears overutilized overall due to these informal contracts to this vendor.

Table 6.12. Purchase Orders Utilization vs. RWASM Availability Level 3

Non-professional Services

Four-State Area of Connecticut (CT), Massachusetts (MA), New York (NY) and New Jersey (NJ)

The Metropolitan District Commission; FY 2005-FY 2008

Ethnicity	2005	2006	2007	2008	Period
White male	0.89**	1.05*	0.85**	0.76**	0.90**
Asian American	39.97*	12.99*	50.53*	47.98*	35.98*
African American	0.77	0.05**	0.34	0.00**	0.28**
Hispanic American	0.03	0.15	0.28	0.00	0.13**
Native American	ND	ND	ND	ND	ND
Non-Designated MBE	0.42**	1.25*	0.28**	0.74**	0.70**
MBE	5.10*	1.68*	6.22*	5.69*	4.45*
WBE	0.20**	0.05**	0.07**	4.01*	0.80
Non-Designated M/WBE	ND	ND	ND	ND	ND
M/WBE	2.88*	0.94	3.44*	4.93*	2.80*
SBE	0.50	0.34	0.49**	0.14**	0.38**

Source: The MDC Financial Management System, MDC Contract Bidders, Contracts bidder 05-07, PMU awardees-no bidders, RFP bidders, Winning bidders, PMU Sub Awardees, Sub Awardees, 2008 Data and PO 2005-2007 INV; M³ Consulting

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DISPARITIES IN GOODS & SUPPLIES

Accounts Payable Utilization vs. RWASM Availability Level 3

Asian American-, Hispanic American- African American-, non-designated MBEs and WBEs are all significantly underutilized in goods & supplies. Hispanic American-owned firms are significantly underutilized in three of the four years. MBEs and WBEs overall are underutilized. SBEs are also significantly underutilized.

Table 6.13. Accounts Payable Utilization vs. RWASM Availability Level 3

Goods & Supplies

Four-State Area of Connecticut (CT), Massachusetts (MA), New York (NY) and New Jersey (NJ)

The Metropolitan District Commission; FY 2005-FY 2008

Ethnicity	2005	2006	2007	2008	Period
White male	1.07*	1.08*	1.06*	1.00	1.05*
Asian American	0.00**	0.00**	0.00**	1.98*	0.65**
African American	0.99	0.83	0.00**	0.00**	0.37**
Hispanic American	0.35**	0.28**	0.75	0.00**	0.28**
Native American	ND	ND	ND	ND	ND
Non-Designated MBE	0.28**	0.04**	0.28**	1.30*	0.53**
MBE	0.53**	0.41**	0.24**	0.57**	0.42**
WBE	0.25**	0.15**	0.23**	0.39**	0.25**
Non-Designated M/WBE	0.00**	0.00**	0.00**	3.74*	1.22*
M/WBE	0.35**	0.25**	0.22**	0.66**	0.38**
SBE	0.29	0.30	0.69**	1.26*	0.68**

Source: The MDC Financial Management System, MDC Contract Bidders, Contracts bidder 05-07, PMU awardees-no bidders, RFP bidders, Winning bidders, PMU Sub Awardees, Sub Awardees, 2008 Data and PO 2005-2007 INV; M³ Consulting

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Contract Award Utilization vs. RWASM Availability Level 3

With contract award data as well, goods & supply vendors who are MBEs are not utilized and WBEs are utilized in FY 2007-FY 2008. SBEs are significantly overutilized, while White male-owned firms are overutilized, but not significantly.

Table 6.14. Contracts Utilization vs. RWASM Availability Level 3
Goods & Supplies
Four-State Area of Connecticut (CT), Massachusetts (MA), New York (NY) and New Jersey (NJ)
The Metropolitan District Commission; FY 2005-FY 2008

Ethnicity	2005	2006	2007	2008	Period
White male	1.08	1.09*	0.86	1.08	1.03
Asian American	0.00	0.00	0.00	0.00	0.00
African American	0.00	0.00	0.00	0.00	0.00
Hispanic American	0.00	0.00	0.00	0.00	0.00
Native American	ND	ND	ND	ND	ND
Non-Designated MBE	0.00**	0.00**	0.00**	0.00**	0.00**
MBE	0.00	0.00	0.00	0.00	0.00
WBE	0.00	0.00	0.41	0.54	0.18
Non-Designated M/WBE	0.00**	0.00**	0.00**	0.00**	0.00**
M/WBE	0.00	0.00	0.21	0.28	0.10**
SBE	0.54**	0.22**	3.97*	0.24**	1.27*

Source: The MDC Financial Management System, MDC Contract Bidders, Contracts bidder 05-07, PMU awardees-no bidders, RFP bidders, Winning bidders, PMU Sub Awardees, Sub Awardees, 2008 Data and PO 2005-2007 INV; M³ Consulting

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Purchase Orders Utilization vs. RWASM Availability Level 3

Table 6.15 presents purchase order utilization and Level 3 availability. WBEs, Asian American- and African American-owned firms are significantly underutilized in goods & supplies. Hispanic American-owned firms are significantly overutilized for the period as a result of significant overutilization in FY 2006, when comparing purchase order awards to the low availability. SBEs are significantly overutilized.

Table 6.15. Purchase Orders Utilization vs. RWASM Availability Level 3

Goods & Supplies

Four-State Area of Connecticut (CT), Massachusetts (MA), New York (NY) and New Jersey (NJ)

The Metropolitan District Commission; FY 2005-FY 2008

Ethnicity	2005	2006	2007	2008	Period
White male	1.07*	1.04*	0.95**	0.98**	1.01
Asian American	0.00**	0.00**	0.00**	2.44*	0.60
African American	0.00**	0.00**	0.00**	0.00**	0.00**
Hispanic American	0.00**	9.11*	0.37	0.00**	2.72*
Native American	ND	ND	ND	ND	ND
Non-Designated MBE	0.12**	0.00**	3.29*	1.58*	1.34*
MBE	0.02**	2.43*	0.54**	0.70	1.02
WBE	0.15**	0.05**	0.28**	0.46**	0.23**
Non-Designated M/WBE	0.00**	0.00**	0.00**	4.63*	1.14*
M/WBE	0.08**	1.07	0.37**	0.80	0.62**
SBE	0.52	0.24	2.40*	1.56*	1.22*

Source: The MDC Financial Management System, MDC Contract Bidders, Contracts bidder 05-07, PMU awardees-no bidders, RFP bidders, Winning bidders, PMU Sub Awardees, Sub Awardees, 2008 Data and PO 2005-2007 INV; M³ Consulting

*Significant and Disparity Ratio is Greater than 1; Overutilized

**Significant and Disparity Ratio is Less than 1; Underutilized

ND: Not Defined

6.4 Capacity Analysis

The analysis of business capacity is complicated by the fact that (1) capacity is difficult to define, (2) capacity is difficult to measure, and (3) once defined and measured, capacity is an elastic concept. Given that proxies of capacity cannot adequately capture the ability of firms through the use of any single measure, M³ Consulting will examine differences in capacity of firms based on race and gender, using established statistical methods and also examine whether race/gender and ethnicity still impact the procurement utilization decision, once a set of variables that measure capacity are controlled for.

The analysis below may be probative in determining whether capacity has had some impact on the participation of M/WBEs in MDC contract opportunities.

CAPACITY ANALYSIS BASED ON AVERAGE SALES REVENUES FROM SMOBE/SWOB

The 2002 Economic Census Survey of Business Owners reports the average annual revenues for the firms that responded to the question about their revenues. This provides a proxy measure of capacity of M/WBEs versus their White male counterparts. Table 6.16 computes the reported average sales revenue for MBEs and WBEs compared to the figures reported for White male-owned firms for the State of Connecticut.

The percents represent the share of revenues of these groups in these industries. (Revenues is being used as a measure of 'capacity'.)

Table 6.16. Average Sales Receipts By Ethnicity and Gender, 2002 State of Connecticut Economic Census Survey of Business Owners The Metropolitan District Commission				
Ethnicity	Construction	Goods & Supplies	Professional	Non-professional
Non-M/WBE	\$1,662,183	\$9,337,138	\$6,963,780	\$1,691,150
MBE	\$545,925	\$739,019	\$673,888	\$478,017
WBE	\$1,295,804	\$9,059,538	\$511,237	\$629,474
M/WBE	\$1,076,403	\$6,845,822	\$543,434	\$540,880
MBE Percent	19.93	4.57	8.98	21.42
WBE Percent	47.32	55.98	6.81	28.20
M/WBE Percent	39.31	42.30	7.24	24.23

Source: 2002 Economic Census Survey of Business Owners - State of Connecticut

Based on average sales revenue, in construction, WBEs earn about 78 percent of that earned by White male-owned firms. WBEs in construction earn about 47 percent of the total dollars. MBEs in construction earn about 33 percent of the reported average sales revenue of White male-owned firms. For suppliers of goods in the State of CT, MBEs earn less than a 10 percent of the average revenues earned by White male-owned firms; and, WBEs earn about the same as White male-owned firms earn. The largest differential within categories is in professional services, wherein M/WBEs earn less than 8 percent of revenues earned by White male-owned firms. In non-professional Services, WBEs earn about 37 percent and MBEs earned approximately 28 percent of the average revenues of White male-owned firms.

CAPACITY ANALYSIS BASED ON SURVEY DATA

M³ Consulting conducted a survey of 750 total firms doing business in the relevant market areas. M³ Consulting received 83 valid responses from firms, constituting a 11.06 percent response rate. Of the 83 respondents, 13 firms (15.7 percent) had contracted with MDC for *less than three years*; eight firms (9.6 percent) from *four to 10 years*, while 16 firms (19.3 percent) had contracted with the MDC for *over 10 years*⁷⁸.

Approximately 75 percent of the respondents were either corporations or Subchapter S corporations. Fifty-four firms were in construction, 20 were suppliers of goods/commodities, six were in professional services, while two were providers of A&E services.

The respondents included male-owned firms at 61 percent (51 firms) and female-owned firms at 39 percent (32 firms). The respondents were evenly divided among those that primarily bid as a prime contractor, subcontractor, or both (exactly 26 firms in each category). While 18 respondents (21.6 percent) were MBEs, 25 respondents (30 percent) were White women-owned firms, and 31 respondents (37.3 percent) were White male-owned firms. Nine firms had missing race/ethnicity identification.

The majority of the respondents were in the 25-55 age group, over 71 percent of White male-owned firms, 61 percent of MBE and 72 percent of WBE owners had a college degree. Overall, 48 percent of the owners had at least an undergraduate degree. A majority of the owners had prior experience in

⁷⁸ While a statistically valid sample (which requires only 30 or more observations), M³ Consulting does not make conclusive findings given the small sample size.

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the area that they are presently in and largely in the private sector based on the survey. Over 64 percent of WBEs, 72 percent of MBEs and 58 percent of White male-owned firms had prior experience in the area or category that they are presently in. For MBEs and White male-owned firms, however, the primary experience was from the public sector, while WBEs had experience in both public and private sector. The majority of the firms had gross receipts in FY 2007 of \$500,000 and above.

Financing

Across race, ethnicity and gender, a large majority of firms in the sample (84.3 percent) were start-ups. About 57 percent of the sample had less than \$50,000 in start-up monies and almost 57 respondents financed the start-up with their own funds. About 29 percent of White male-owned firms had start-up monies over \$50,000, as compared to 16 percent of MBEs or WBEs. All three groups were largely dependent upon themselves for financing. Only one respondent firm among those surveyed depended on a contract to fund their start-up finances. About 40 percent of MBEs and WBEs applied for a bond, while over 74 percent of White male-owned firms did; 56 percent, 40 percent and 71 percent respectively of MBEs, WBEs and White male-owned firms applied for a loan. While the majority of White male-owned firms were not rejected on the loan or bond application, the data for MBEs and WBEs is too sparse to draw any conclusions on this issue.

Bidding

A small proportion (approximately one-third) of M/WBE survey respondents bid with MDC. A majority of them (over 75 percent) bid with the private sector, regardless of their race/gender.

Over the last two years, of those firms that responded, approximately a third of the firms did not win a bid with MDC, regardless of being a M/WBE or a White male-owned firm.

Approximately 25 percent of the respondents *bid at least 1-5 times as a prime contractor* and about 10 percent *bid over five times as a prime contractor* with MDC.

About 17 percent of respondent firms *bid at least 1-5 times as subcontractors* with MDC and 6 percent *bid over five times as subcontractors*.

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In total, over 43 percent of the respondents *bid over five times with the private sector*. While 14 percent *bid as subcontractors with the private sector*, about 39 percent *bid as prime contractor over five times*.

Approximately 36 percent of the respondents in the sample won a subcontract with MDC. In contrast, about 90 percent of the respondents who bid for subcontracts won at least once or more often with the private sector.

Four variables from the survey were used as proxy measures of capacity of the firms: start-up monies, years in business, number of full-time employees and gross receipts.

Statistical significance of the survey results is measured based on two statistical procedures: (1) t-tests of difference in means; and (2) multiple regression analysis. T-tests were conducted to study differences in means of each of the three capacity variables, between M/WBEs and White male-owned firms. In this section, we discuss each of the capacity variables, and report any statistically significant differences among the various ethnic groups⁸⁰.

T-Tests of Difference in Mean Capacities

Based on the t-test of difference in means, there is significant difference in years in business among the groups. White male-owned firms have significantly higher years in business (32 years) than M/WBEs (21 years).⁸¹

In gross receipts, there was a significant difference among the groups, non-M/WBE respondents fell in the *over \$2.5 million to \$5 million* range in average receipts and M/WBEs fell in the *\$500,000 to \$1 million* range on average in revenues. With start-up monies, however, M/WBEs had no significant differences from White male-owned firms on average, with both groups in the *\$10,000 to \$50,000* range. One may surmise that, while both groups start with similar amounts of initial capital investments, they depart in receipts as they grow.

⁷⁹ There were too few respondents who were MBEs and WBEs to conduct an analysis of the three groups separately, viz., MBEs, WBEs and White male-owned firms. Hence, we grouped the WBEs and MBEs together as M/WBEs in the t-tests and regression analysis.

⁸⁰ The number of observations were too few to draw any distinct conclusions from the regressions to draw generalizations but some inferences about relationships among variables may shed light on the variables that impact gross revenues and number of times prime contractors win a bid.

⁸¹ We compared the ranges that these groups fell in with respect to start-up-monies and found little difference.

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**Table 6.17. T-test of Difference in Means Among Capacity Variables
The Metropolitan District Commission, City of Hartford**

	Groups	N	Mean	Std. Deviation	t-statistic	Sig. (2-tailed)	Significant
Years In Business	M/WBE	41	21	14.82	-2.634	0.011	Yes
	White male	30	32	21.36			
FTE	White male	42	10	12.8	-1.028	0.313	No
	MBE	30	1362	7206			
Gross Receipts	White male	42	5.14	2.0	-4.387	0.000	Yes
	MBE	30	7.07	1.701			
Startup Monies	White male	32	2.38	1.362	-0.552	0.584	No
	MBE	27	32	21.36			

Source M³ Consulting

MULTIVARIATE REGRESSION ANALYSIS

While survey data presents differences in capacities of M/WBEs and White male-owned firms using t-tests of differences in means, other social science research suggest multiple factors in understanding the relationships among factors affecting firm revenues that may include race and gender. Multivariate regression analysis may help analyze variables, including race and gender that can affect a firm's success.

In this analysis, we measure firm success utilizing two regressions. In the first regression, we measure firm success utilizing gross revenues as the dependent variable in line with social science research⁸² to examine if after accounting for firm capacity, demographic characteristics, such as race and gender, would statistically explain any variation in firm's gross revenues. "Gross revenues," however, is often a measure of firm capacity as well as an estimation of utilization and so in the second regression, M³ Consulting uses it as a determinant to study the relation between race/ethnicity/gender to the number of times a bid is won as a prime contractor after controlling for the capacity variables⁸³. We present the results of the regressions below.

⁸² Bates, Timothy, "The declining status of minorities in the New York City Construction Industry," Reprinted from Economic Development Quarterly, Vol 12, No. 1, Feb 1998, 88-100. "Race and Gender Discrimination across Urban Labor Markets," 1996., Ed. Susan Schmitz. Garland Publishers, New York, NY, p 184. Becker, Gary, The Economics of Discrimination, 1971, 2nd ed. The University of Chicago Press, Chicago.

⁸³ While capacity may be measured by many variables, based on previous studies in the area such as past gross receipts, start-up capital, bonding, insurance and loans available, years in business, number of full-time employees, among others, M³ Consulting was constrained to only include those for which there were sufficient observations to draw any statistical inference.

Gross Revenues Regression

For this analysis, the dependent variable (the variable to be explained) is defined as “firm’s past year’s gross revenues”. In conducting surveys, however, M³ Consulting has often found that private firms tend to resist the idea of releasing precise dollar figures, but are more responsive when inquiries are made about revenues as dollar ranges. Accordingly, to increase response rate, nine company gross receipt revenue categories were defined ranging from “Under \$100,000” as Category 1 to “Over \$10 million” as Category 9. For the regression, the rank of each revenue category (1 through 9) is used as the revenue data observations for each firm.

For the independent variables that may explain variation in gross revenues, the following variables were included:

- Number of full-time employees: This variable is a proxy for size of a firm in that, the more employees a company has, the greater volume it is likely to generate, resulting in higher revenues.
- Years in business⁸⁴: This is a proxy for experience of a firm. It may be argued that a company’s longevity is an indicator of success and increased business, thus generating increased revenues.
- Owner’s education: The argument is that the higher the level of education of the owner, the greater is the probability of the firm’s success and hence increased revenues.⁸⁵
- Owner’s prior experience: It is often noted that companies with greater experience in the private sector may be less likely to bid and be successful in the public sector. M³ Consulting examined to see whether the owner’s prior experience was in private sector (1) or public sector (2) and whether that has any bearing on gross revenues of the firm.⁸⁶
- Race/ethnic/gender group of firm owners: The variable is expected to test whether there is any statistically significant relationship between race/ethnicity/gender of M/WBEs and gross revenues.

⁸⁴ Years in business is measured as 2009 minus reported “year the firm was established.”

⁸⁵ Owner’s education was measured from “less than high school” as category 1 to “Graduate degree,” as category

⁸⁶ Q.24. Was the owner’s prior experience in: Private sector (coded as 1), public sector (coded as 2) and both (coded as 3). Since vendor selection for public sector projects, large and small, is often based on a vendor list maintained in this case by MDC, if firms that do business with public sector in the past result in being selected, thus having increased revenues, the variable is expected to have a positive relation with gross revenues.

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Gross Revenues Regression Results (I):

Formally, the regression model is expressed as:

$$GR = \beta_0 + \beta_1X_1 + \beta_2X_1 + \beta_3X_2 + \beta_4X_3 + \beta_5X_4 + \beta_6X_5 + \epsilon$$

where,

GR = annual firm gross revenues for past year;

β_0 = the constant, representing the value of Y when $X_i = 0$

$\beta_1 = \beta_1$ to β_5 , representing the coefficients of the magnitude of X_i 's effect on GR

$X_i = X_1$ to X_5 , representing the independent variables such as years in business, owner's experience, owner's education, full-time employees, race and gender.

ϵ = the error term, representing the variance in gross revenues unexplained by the independent variables, X_i .

We test the hypothesis of no difference (known as the null hypothesis) which represents that there is no difference in the past year's revenues of M/WBEs compared to White male-owned firms once capacity is accounted for. ($GR_{(M/WBEs)} = GR_{(Non-M/WBEs)}$).

Disparity research theory contends that, all things being equal, the race/gender/ethnicity of a firm does have a bearing on a firm's revenue, i.e., the null hypothesis stated above is rejected. Results are statistically significant if it is determined that the probability of this difference due to chance was less than 5 in 100 (i.e., p-values of less than 0.05 or statistically significant).

One of the tests to examine whether the model specified explains the variability in the dependent variable is called the F-test. For the model presented, the F-value is noted to be statistically significant asserting overall that the variation in revenues is explained by the variations in the specified explanatory variables (capacity and demographic independent variables listed above) and that the results are statistically significant. The detailed regression and results are presented and discussed below:

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Table 6.18. Results of Survey Regression Analysis Examining Gross Revenues of Firms The Metropolitan District Commission, City of Hartford

Variable	Unstandardized Coefficients		Standardized Coefficients			Statistically Significant
	B	Std. Error	Beta	t	Sig.	
(Constant)	5.215	.713		7.318	.000	Yes
Full Time Employees	-0.0000827	.000	-.189	-1.89	.070	No*
Years in Business	.049	.012	.435	3.985	.000	Yes
Owners Education	.100	.194	.055	.515	.608	No
M/WBE owned firm or not	-1.321	.466	-.310	-2.833	.006	Yes
F-value/p-value:	9.946/0.000					
Adj. R-square	0.352					

Source: M³ Consulting

*Significant at 10 percent confidence level

The results show that having a lower number of full-time employees (a proxy for the firm's size) and a greater number of years in business correlates with increased revenues of the affected firms. Owners' education does not appear to have any impact on revenues⁸⁷.

In addition to capacity variables, in examining the variables representing race/gender/ethnic groups, it is noted that ownership by a minority or by a woman correlates in a statistically significant manner with revenues; thus race/gender may be a factor impacting their level of revenue⁸⁸.

The unstandardized beta coefficient for a minority- or woman-owned firm was -1.321, indicating that M/WBEs had annual revenues that were more than one revenue category lower than similarly situated (similar capacity) firms. This implies that, after accounting for capacity, any variation in revenues of these firms from similarly situated White male-owned firms may have been due to discrimination and not purely due to chance.

The above revenue regressions clearly indicate that after adjustments for variables such as years in business, education of owner, number of employees, there is a negative and consistent relationship between M/WBEs' status and revenues, supporting the hypothesis that lower revenues are perhaps

⁸⁷ We tried several other variables that included owners' prior experience, owners' age, start-up monies and none of them have any significant relationship with gross revenues of the firms.

⁸⁸ Due to limited number of observations, the analysis could not be broken down to the detailed races/ethnicities.

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due to the minority or woman status of these firms. These analyses, while not proving that discrimination caused lower annual revenues, certainly gives weight to the argument that discrimination may have been a significant factor.

While the revenue regression does indicate that race/ethnicity may play a role in revenue generation of firms, it does not examine whether race/gender has any bearing on the awards process in MDC.

The second regression examines if any of the race/ethnic/gender groups would influence the number of times contractors win a bid as a prime⁸⁹. The second regression presented below includes 'gross revenues' as a 'capacity variable' along with the other capacity variables of years in business, full-time employees, owner's experience and demographic variables that represent race/ethnic/gender groups.

For this analysis, the dependent variable (the variable to be explained) is defined as the 'number of times a firm that bid wins as a prime.' The dependent variable was defined in ranges to increase response rate. Accordingly, four categories of the dependent variable were defined ranging from "zero times" as Category 0 to "1-3 times" as Category 1, "4-5 times" as Category 2 and "More than five times" as Category 3. For the regression, the rank of each revenue category (0 through 3) is used as the dependent variable data observations for each firm.

For the independent variables that may explain variation in number of times a firm won a bid, the following variables were included: Number of full-time employees, years in business⁹⁰ (represented by firm age), gross receipts, start-up monies and the race/ethnic/gender groups. While all other variables are defined earlier, start-up monies is defined as ranges in five categories as "under \$10,000," as Category 1 to "over \$100,000," as Category 5. The hypothesis is that the larger the amount of start-up money a firm has, the greater the chance that they would win a bid.

Formally, the regression model is expressed as

$$\text{NoWonbid} = \beta_0 + \beta_1 X_1 + \beta_2 X_1 + \beta_3 X_2 + \beta_4 X_3 + \beta_5 X_4 + \beta_6 X_5 + \epsilon$$

where,

⁸⁹ The number of responses were only 51 on the variables in this regression that only a limited number of variables could be included for analysis.

⁹⁰ We also tried the regression using other proxies for experience such as the owner's experience, which did not change the results.

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NoWonbid = number of times a firm won a bid;

β_0 = the constant, representing the value of Y when $X_i = 0$

$\beta_i = \beta_1$ to β_5 , representing the coefficients of the magnitude of X_i 's effect on NoWonbid

$X_i = X_1$ to X_5 , representing the independent variables such as years in business, gross revenues (past year), start-up monies, full-time employees, race and gender.

ϵ = the error term, representing the variance in the number of times a firm wins a bid unexplained by the independent variables, X_i

We test the hypothesis of no difference (known as the null hypothesis) that represents that there is no difference in the number of times a M/WBE owned firm won a bid from a White male-owned firm. ($\text{NoWonbid}_{(M/WBEs)} = \text{NoWonbid}_{(White\ male)}$).

6.5 Results and Discussion

The results show that the larger the gross receipts of a firm, the greater the number of times the firm was likely to have won a bid. While the number of full-time employees (a proxy for the firm's size) does increase the number of times a firm wins a bid, the variable is not statistically significant. Other capacity variables are similarly not significant. This implies that any variation caused in the number of times that a firm wins a bid due to variations in the number of employees, years in business is purely due to chance and not due to any systematic pattern.

Table 6.19. Regression To Examine The Factors That Influence Winning A Bid As A Prime Contractor
Dependent Variable: Number Of Times Won Bid As Prime Contractor
The Metropolitan District Commission, City of Hartford

Variable	Unstandardized Coefficients		Standardized Coefficients			Statistically Significant
	B	Std. Error	Beta	t	Sig.	
(Constant)	-.098	.294		-.332	.741	
Full Time Employees	1.999E-5	.000	.219	1.527	.134	NO
Gross Receipts	.109	.043	.450	2.524	.015	YES
Years in Business	-.004	.004	-.146	-.895	.375	NO
M/WBE owned firm or not	.049	.159	.048	.309	.759	NO
F-value/p-value:	2.115/0.094					
Adj. R-square	0.082					

Source: M³ Consulting

In examining the variable representing race/gender/ethnic groups, it appears that a firm having either minority or women ownership does not yield a statistically significant impact on number of times it is likely to win a bid. This implies that after accounting for capacity, any variation in M/WBEs' chance of winning a bid compared to other firms was purely due to chance. Due to the low number of respondents, however, to the survey, these results cannot be generalized to the population of firms doing business with MDC.

6.6 Summary of Capacity Discussions

The various measures of capacity from the Census and the M³ Consulting survey of MDC vendors appear to be robust in that all the measures appear to show some capacity differences in M/WBEs and White male-owned firms. All measures appear to support the findings of disparity for the different MBE groups and multivariate regression of MDC vendors provide evidence that the disparity is due, in part, to the race/gender/ethnic status of firms.

As was the case with Census data, according to the other data sources, as well, M/WBEs appear to earn less than White male-owned firms. The multivariate regression supports this by indicating that, after adjusting for the impact of non-race/gender/ethnic factors such as differences in years in business, number of full-time employees and owner's experience M/WBEs have significantly lower revenues than similarly situated firms.

Due to low responses from the survey, however, M³ Consulting cannot conclude definitively from the multiple regression analysis that, after accounting for differences in gross receipts of a firm, race/gender/ethnicity influences the number of times M/WBEs win a bid.

Once capacity is accounted for, it appears that the number of times this group wins bids appears to be in par with similarly situated firms. Variation in their revenues (based on revenues regression), however, may not be purely due to chance and may be due to differences in race/ethnicity/gender⁹¹. While the disparity results, earlier in this chapter, indicate some race/ethnic/gender underutilization, due to limited data, the multivariate regression presented above cannot conclusively state that that these disparity results are largely due to the difference in capacity of these firms.

⁹¹ The caveat to note from these conclusions is that while this is true for the respondent firms, the low number of survey respondents limits us to generalize these results to the population of firms that bid with MDC.

6.7 Conclusions Disparity Ratios

Table 6.20 summarizes the disparity ratios discussed in this chapter for each of the industry types at the race/ethnic/gender group level, for procurements at MDC for the period FY 2005–FY 2008. The discussion of the results is presented by data source and industry category.

For the architecture & engineering industry, WBEs, African American- and Asian American-owned firms were underutilized using contract award data for utilization measure and RWA^{sm} availability. Hispanic American-owned firms were overutilized. Using accounts payable data or purchase order as the utilization measure, all MBE groups and WBEs were underutilized.

The results within the construction industry, using RWA^{sm} shows African American-owned businesses were significantly underutilized. Asian American-owned firms were underutilized, however, their disparity ratio did not reach significance. Hispanic American-owned firms and WBEs were overutilized.

In professional services, WBEs, Asian American- and Hispanic American-owned firms were underutilized, based upon contract award utilization data and RWA^{sm} availability, however their disparity ratio did not reach significance. African American-owned firms were overutilized utilizing any utilization data source. Accounts payable and purchase order data yielded underutilization of WBEs, Asian American- and Hispanic American-owned firms.

In the area of non-professional services, there was underutilization of WBEs, African American- and Hispanic American-owned businesses based on contract award data and RWA^{sm} availability. Asian American-owned firms were significantly overutilized. Non-professional services based on accounts payable or purchase order data yielded similar results.

For goods & supplies, with contract award, purchase orders and accounts payable yielded similar results of underutilization of MBE groups and WBEs. The exception is purchase order data for Hispanic American-owned firms. These firms were overutilized for the period.

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**Table 6.20. Summary Disparity Ratios by Race/Gender Category
The Metropolitan District Commission, FY 2005-FY 2008**

Ethnicity	Account Payable					Contract Awards (Pure Prime + Sub)				
	A&E ¹	Construction ²	Professional Services ¹	Non-Professional Services ²	Goods & Supplies ²	A&E ¹	Construction ²	Professional Services ¹	Non-Professional Services ²	Goods & Supplies ²
Asian American	0.00**	0.35**	0.23**	46.84*	0.65**	0.44	0.12	3.63	22.74*	0.00
African American	0.01**	0.07**	1.14	0.11**	0.37**	0.01	0.37**	2.83	0.62	0.00
Hispanic American	0.00**	1.82*	0.16**	0.09**	0.28**	1.34	7.48*	0.28	3.00	0.00
Native American	ND	0.00**	ND	ND	ND	ND	0.00	ND	ND	ND
WBE	0.00**	2.09*	0.11**	0.05**	0.25**	0.46	2.60*	1.13	0.94	0.18

Source: The MDC Financial Management System, MDC Contract Bidders, Contracts bidder 05-07, PMU awardees-no bidders, RFP bidders, Winning bidders, PMU Sub Awardees, Sub Awardees, 2008 Data and PO 2005-2007 INV; M³ Consulting

1State of Connecticut 2Four-State Area of Connecticut (CT), Massachusetts (MA), New York (NY) and New Jersey (NJ)

*Significant and Disparity Ratio is Greater than 1 ** Significant and Disparity Ratio is Less than 1

ND: Not Defined

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**Table 6.21. Summary Disparity Ratios by Race/Gender Category
The Metropolitan District Commission, FY 2005-FY 2008**

Ethnicity	Purchase Orders				
	A&E ¹	Construction ²	Professional Services ¹	Non-Professional Services ²	Goods & Supplies ²
Asian American	0.00**	0.35	0.21	35.98*	0.60
African American	0.01**	0.01**	1.13	0.28**	0.00**
Hispanic American	0.01**	1.60*	0.12**	0.13**	2.72*
Native American	ND	0.00	ND	ND	ND
WBE	0.00**	1.94*	0.08**	0.80	0.23**

Source: The MDC Financial Management System, MDC Contract Bidders, Contracts bidder 05-07, PMU awardees-no bidders, RFP bidders, Winning bidders, PMU Sub Awardees, Sub Awardees, 2008 Data and PO 2005-2007 INV, M³ Consulting

1.State of Connecticut 2.Four-State Area of Connecticut (CT), Massachusetts (MA), New York (NY) and New Jersey (NJ)

*Significant and Disparity Ratio is Greater than 1 ** Significant and Disparity Ratio is Less than 1 ND: Not Defined

Chapter 7: Procurement Analysis

7.1 Introduction

The purpose of this procurement analysis is to determine whether there are systemic barriers within The Metropolitan District Commission's (MDC) procurement policies, procedures and processes, based on the owner's race and/or gender, that impact a qualified vendor's access to opportunities at MDC. The existence of such barriers may necessitate fundamental changes to the overall procurement and contracting activities at MDC of minority- and women-owned business enterprises (M/WBE) in procurement opportunities.

M³ Consulting undertook a review of MDC's procurement system in order to discern the environment M/WBEs encounter when they seek opportunities at MDC. M³ Consulting performed a two-pronged analysis of the MDC procurement system.

- a. A review of MDC's procurement policies, procedures and practices.
- b. A review of the impact of MDC's procurement structure, policies, procedures and practices on the ability of M/WBEs to do business with MDC.

M³ Consulting's analysis is a broad view of the impact of MDC's practices on all contracting opportunities.

7.2 Best Practices in Public Sector Procurement

M³ Consulting has reviewed numerous public sector procurement operations and developed an overview of best practices as it relates to M/WBE participation. A comprehensive procurement system includes the nine features listed below.

- Organizational structure
- Budgeting and forecasting
- Informal purchases
- Formal purchases
- Bid opening and evaluation

- Contract administration
- Sole source contracts, emergency purchases, change orders and contract amendments
- Bonding and insurance
- M/WBE Program

M³ Consulting measures MDC's procurement environment against these nine features. We start with a discussion of these best practices. Following this discussion is a review of MDC's procurement environment.

7.3 Analysis of Organizational Structure

An analysis of the organizational structure provides an assessment of the open and competitive nature of the procurement system. To make this determination, M³ Consulting gauges the degree of centralization or decentralization of the procurement process, the sufficiency and interrelationship of the written policies and procedures, and the transparency of the procurement process. M³ Consulting looks for indications as to whether the procurement process is open, clear, unambiguous, and consistent or whether it is vague, uncertain, and raises doubts.

Centralization occurs when a single unit of a public entity (most often a procurement department) is largely responsible for the purchase of goods, services, and construction for the entire organization. Decentralization occurs when various units or user departments within an organization have significant procurement authority. The use of a centralized or decentralized procurement system is a complicated decision.

The selection of a procurement system is critical to the organization's successful performance. When making a decision regarding centralization, an organization should consider the size of the organization and the varying procurement needs of the different units of the organization.

While small organizations usually adopt centralized procurement systems, large organizations select centralization, decentralization, or a combination of the two. This decision is based on the different needs and the sizes of the units. Any selection made can be correct for a particular organization if the proper support system is implemented. If the proper support system is not put in place, then, the system may be prone to subjective contracting decisions and disparate treatment of contractors.

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For the purposes of this procurement analysis, a sufficient support system consists of modern procurement law, adequate written policies and procedures governing transactions, and a reporting system that reflects completely and accurately the performance of personnel and the procurement system as a whole. Adherence to written policies and procedures must be highly-valued and accompanied by strict reporting to ensure all participants are accountable for their actions and decisions.

Well-written policies and procedures allow for consistency and predictability in procurement transactions, and assist a public entity in maintaining uniform decision making within the varying agencies with purchasing authority. The attributes of well-written policies and procedures include, but are not limited to, the following:

- Clearly defined functions of all personnel involved in procurement decisions;
- Clear protocol for how and when to utilize various procurement methods;
- Clear definitions of procurement terms, such as “responsible and “responsive bidder;”
- Criteria for selection and evaluation of bidders by categories of procurement;
- Criteria for evaluation of vendor/contractor performance after contract; and,
- Clear delineation of the sources of procurement definitions, particularly if municipal, state or federal codes are involved.

Procurement departments can promote transparency and consistency in purchasing operations by providing information regarding contracts, vendor contract terms and conditions, evaluations of contractor and subcontractor performance, details of M/WBE participation, and results of procurement audits.

Several jurisdictions require mayoral, council, commission, school board, or senior manager approval of contracts over a certain dollar threshold. Mayoral, city council or board oversight of senior officials should ensure openness and accountability to tax-paying citizens for the actions of administrators, increase fair and open competition, and reduce the susceptibility of procurement transactions to corruption or discrimination.

A central procurement department should develop the policies and procedures, with input from the varying units. Individual units should not be allowed to establish their own procurement policies and procedures. To ensure policies and procedures are being interpreted and executed in a uniform manner, written policies and procedures should be supported by adequate training of all personnel in all units involved in purchasing decisions. To ensure procurement personnel are adhering to prescribed methods of contracting and procurement, the central procurement department should conduct periodic audits.

Proper reporting procedures can strengthen transaction consistency. In order to troubleshoot inconsistencies, adequate and meaningful reporting is imperative. For example, properly designed reports may alert an agency to an abuse of discretionary spending power. Reports must be consistent and complete, so a reviewer can easily identify problem areas. Statistical reporting should include information regarding contractors, subcontractors, bidders, sub-bidders, contract types, contract amounts, final payment amounts, subcontractor payment amounts, contract start dates, contract end dates, and contract amendments/change orders. Other relevant reports include daily inspection reports and procurement or project manager evaluations of contractor and subcontractor performance, requests and approvals for subcontractor substitutions, levels of M/WBE participation, and results of procurement audits.

Policies, Procedures, and Practices Analysis⁹²

There are several policies and procedures that can have a systemic impact on the ability of minority- and women-owned businesses to do business with a public entity. M³ Consulting reviews select policies and procedures to determine whether there are systemic barriers to M/WBE participation in the procurement process. Below is a listing of those policies and procedures.

Budgeting and Forecasting

Effective budgeting and forecasting is an essential element in the development of successful procurement programs that enhance bidder participation and utilization of M/WBEs. Budgeting and forecasting allows greater and more in-depth planning of inclusion of M/WBEs in a public entity's opportunities at the prime and subcontractor levels.

⁹² M³ Consulting notes that the thoroughness of this analysis depends heavily on the existence of written policies and procedures, as these documents provide the standards against which the operation and practice can be measured.

The elements of an effective budgeting and forecasting plan include project name, project location, estimated cost, proposed work elements, start date and completion date. These elements ensure both M/WBEs and prime contractors are aware of the various work components as early as the public entity commits to a project. With sufficient advanced notice, M/WBE officials are able to engage in matchmaking activities and M/WBEs are able to begin marketing and capacity building efforts in anticipation of these Invitations to Bid and Request for Proposals.

Informal Purchases

Informal purchases provide the greatest opportunity for procurement personnel to impact the choice of vendors selected. These purchases are below a certain dollar threshold and are not subject to a formal contracting process or an advertised competitive bid process. With informal purchases, buyers or procurement agents generally have discretion in the identification of those vendors from whom they will solicit quotes and who will be selected to receive the final award. Given this discretion, tracking and reporting are essential elements of the procurement process to ensure open and fair competition is occurring at this level of procurement.

Formal Purchases

Formal purchases usually allow procurement personnel less discretion in vendor selection, particularly in jurisdictions that must select the lowest bidder. Some discretion, however, typically does exist in formal purchasing, especially when a seemingly objective selection criterion, like the “lowest bidder,” can be modified to include terms such as the “lowest responsive and responsible” bidder. M³ Consulting reviews the formal procurement process to determine how available discretion is exercised in each of the following procurement categories:

- Architecture and Engineering
- Construction
- Professional Services
- Non-professional Services
- Goods & Supplies

Bid Opening and Evaluation

Bid opening and evaluation analysis allows M³ Consulting to determine whether there is any subjectivity in the selection of prime contractors.

Contract Administration

Contract administration includes management of the contract, payment practices and reviews of contractor performance. A considerable amount of vendor contact occurs at this phase of the procurement process. A review of contract administration procedures allows M³ Consulting to determine how inspectors, engineers and other personnel interact with prime and subcontractors while the contract is being performed. This evaluation can lead to a determination about whether or not agency personnel show favoritism based on race, ethnicity or gender.

Sole Source Contracts, Emergency Purchases, Change Orders, and Contract Amendments

M³ Consulting reviews sole source, emergency purchases, change orders and contract amendment policies to determine whether competitive bidding procedures are being avoided inadvertently or intentionally.

BONDING AND INSURANCE

Bonding and insurance are contract requirements that protect the interest of the owner. These contract requirements insure that contracts are completed within budget, on time, in conformance with contract documents and provide protection against site accidents and other mishaps that may occur while providing services. M³ Consulting reviews rules and regulations regarding bonding and insurance to ensure that they are not overly burdensome to M/WBEs.

Bid, Performance and payment bonds, commonly referred to as surety bonds, are financial instruments issued by insurance companies. Bid bonds guarantee that prospective bidders are able to provide payment and performance bonds if awarded a contract. Payment Bonds insure that employees, suppliers and subcontractors are paid for services and goods provided. Performance bonds insure that the project will be completed in accordance with the terms and conditions of the contract documents.

Insurance requirements are established by the owner's Risk Manager. Insurance may require contractors to be covered by General Liability, Automobile, Builders Risk and Workers Compensation. Architectural and Engineering contracts typically require Errors and Omissions coverage.

M/WBE PROGRAM

M³ Consulting has identified six essential program elements of a successful and comprehensive M/WBE plan. When these six essential program elements are consistently utilized, these elements tend to increase the opportunity for M/WBE success to participate in business opportunities:

Figure 7.1: M³ Consulting Six Essential M/WBE Program Elements

1.	Outreach and Matchmaking	→efforts to increase the business community's awareness of an entity's procurement and contract opportunities and match M/WBEs to specific contract opportunities
2.	Certification	→eligibility criteria for M/WBE participants
3.	Technical Assistance	→informational and strategic support of businesses to meet the entity's M/WBE planned objectives
4.	M/WBE Inclusion in Bid Opportunities	→the mechanism by which the entity assures that material consideration of M/WBE participation is given in the award of a contract
5.	Contract Award Review	→ensuring adherence to M/WBE planned goals on all contracts after execution of the contract
6.	Organizational Performance Evaluation	→a comparison of performance results to the entity's goals to determine policy successes, strengths and weaknesses, and performance improvement areas

Source: M³ Consulting

In addition to reviewing the written policies and procedures, M³ Consulting conducts interviews with procurement personnel and other personnel involved in the procurement process. These interviews help M³ Consulting determine if practices are consistent with written policies and procedures. Also, these interviews assist M³ Consulting in determining whether written policies are unclear. Lack of clarity in procurement policies can lead to subjective decision-making.

7.4 Analysis of the MDC Procurement Process

Below is M³ Consulting's review of the procurement policies, procedures and practices for MDC and those of the State of Connecticut that apply to MDC. To conduct this analysis, M³ Consulting reviewed the following procurement policies and procedures:

- MDC Procurement Unit Manual, September 2003
- Section 2-16, the Compiled Charter of The Metropolitan District
- Title 4-A Department of Administrative Services, State of Connecticut Procurement Procedures
- Chapter 58a Section 4a-100, State of Connecticut Prequalification and Evaluation of Contractors
- HB5800: A charter amendment for the MDC concerning the implementation of a M/WBE program
- Chapter 58 section 4a-60g, Connecticut State Statutes: A set-aside program for small contractors and minority business enterprises
- General Ordinances section G5a-G5f, The Metropolitan District Commission
- Section 22A-482-4, Connecticut Department of Environmental Protection Clean Water Fund Regulations
- Presidential Executive Order 11625 - Developing and Coordinating a national program for Minority Business Enterprise
- Presidential Executive Order 12138 - Developing a policy and Program for Women's Business Enterprise

M³ Consulting also conducted interviews with staff in the Procurement Unit, Water Pollution Control, Water Treatment, Water Supply, Program Management Unit, and Solid Waste. The following analysis reflects the results of the test of MDC procurement policies, procedures and practices of MDC as compared to the nine features outlined above. We note that MDC had commenced both independent reviews and adjustments to its procurement structure, processes, policies and procedures during the course of this study.

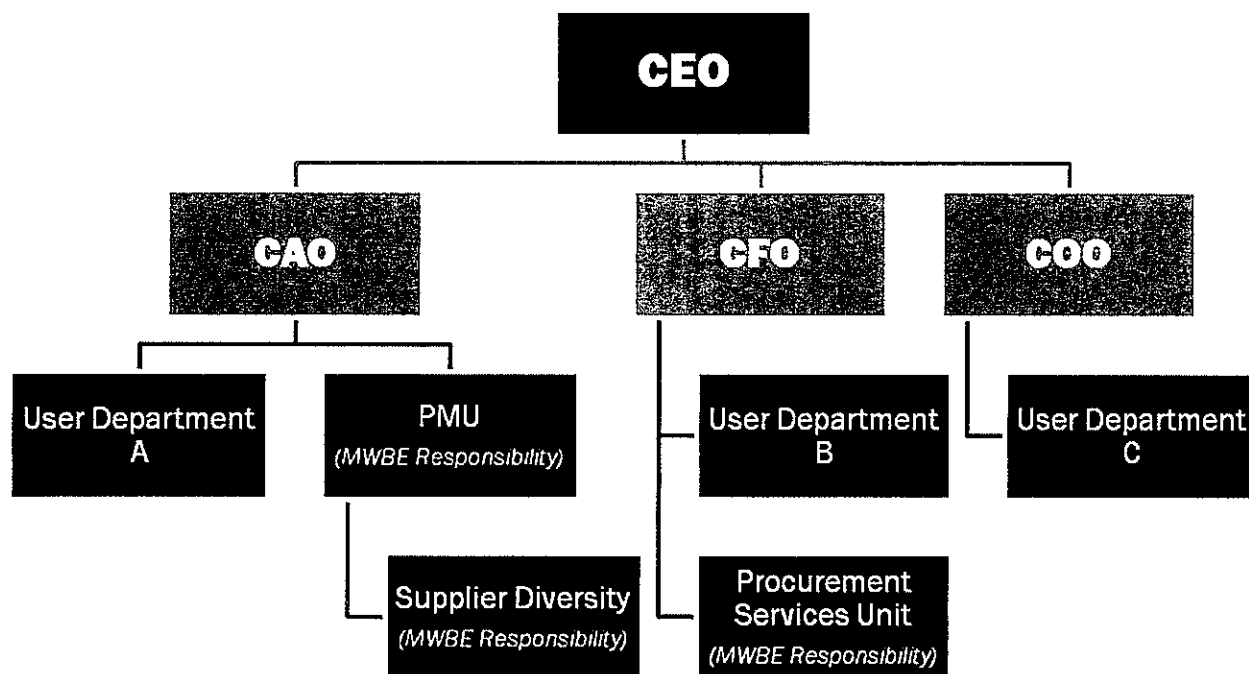
ANALYSIS OF ORGANIZATIONAL STRUCTURE OF MDC

The core business of MDC involves providing clean drinking water to the eight member jurisdictions. The departments that provide these services are: *Water Supply*, *Water Treatment* and *Water Pollution Control*.

Water Supply maintains the pipes that provide water to residences and businesses within the district. *Water Treatment* is responsible for the treatment of waste water within the plants. *Water Pollution Control* maintains the plants that remove pollutants from the water supply.

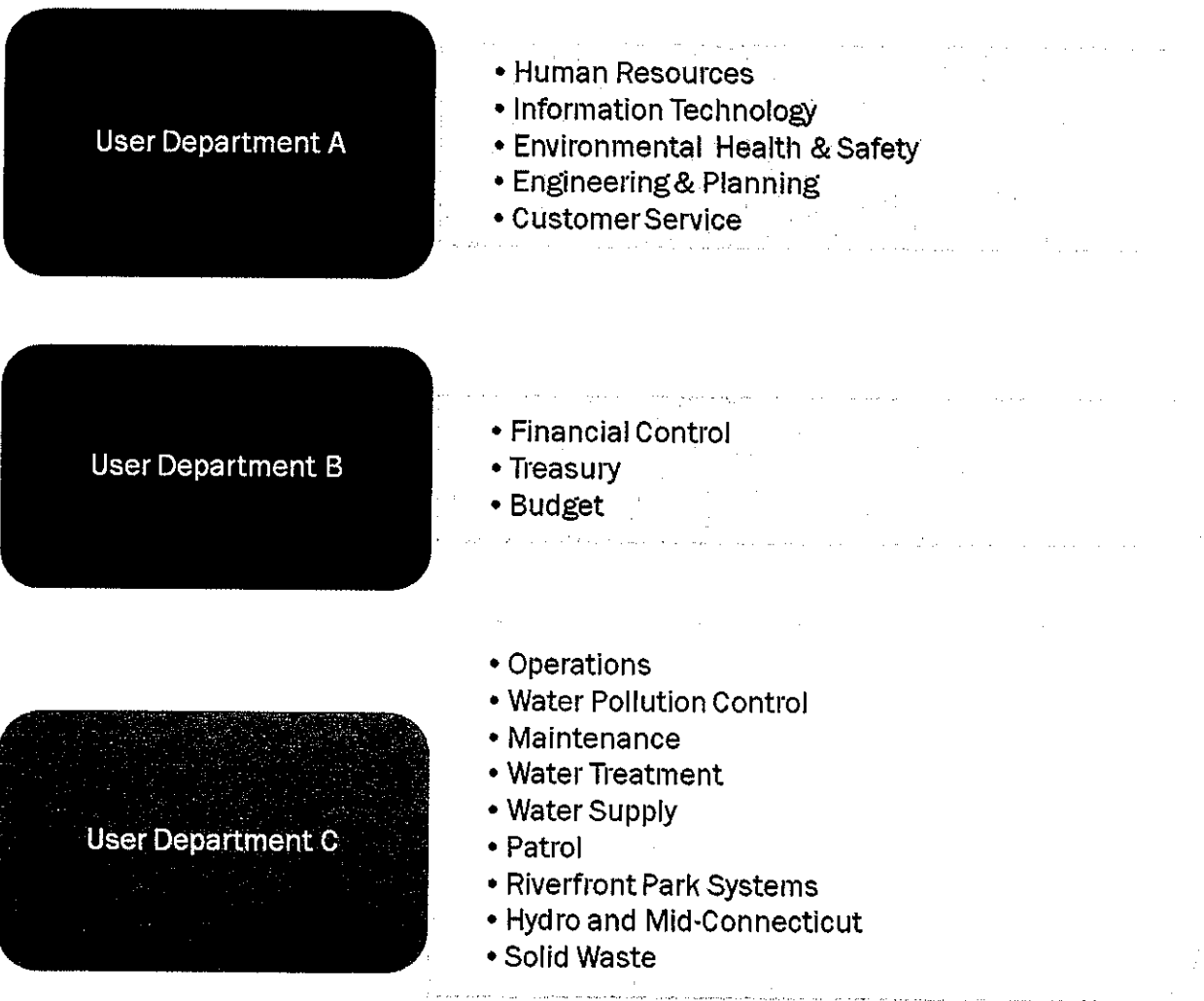
Procurement is decentralized. The procurement responsibilities are divided between the Procurement Services Unit, user departments and the Program Management Unit. Following are matrices outlining the responsibilities of the various departmental units in the procurement process.

Figure 7.2 (Part 1 of 2): MDC Organization Hierarchy Outline



Source: MDC Procurement Department; M³ Consulting

Figure 7.2 (Part 2 of 2): MDC User Departments Defined (as shown in the MDC Organization Chart)



Source: MDC Procurement Department; M³ Consulting

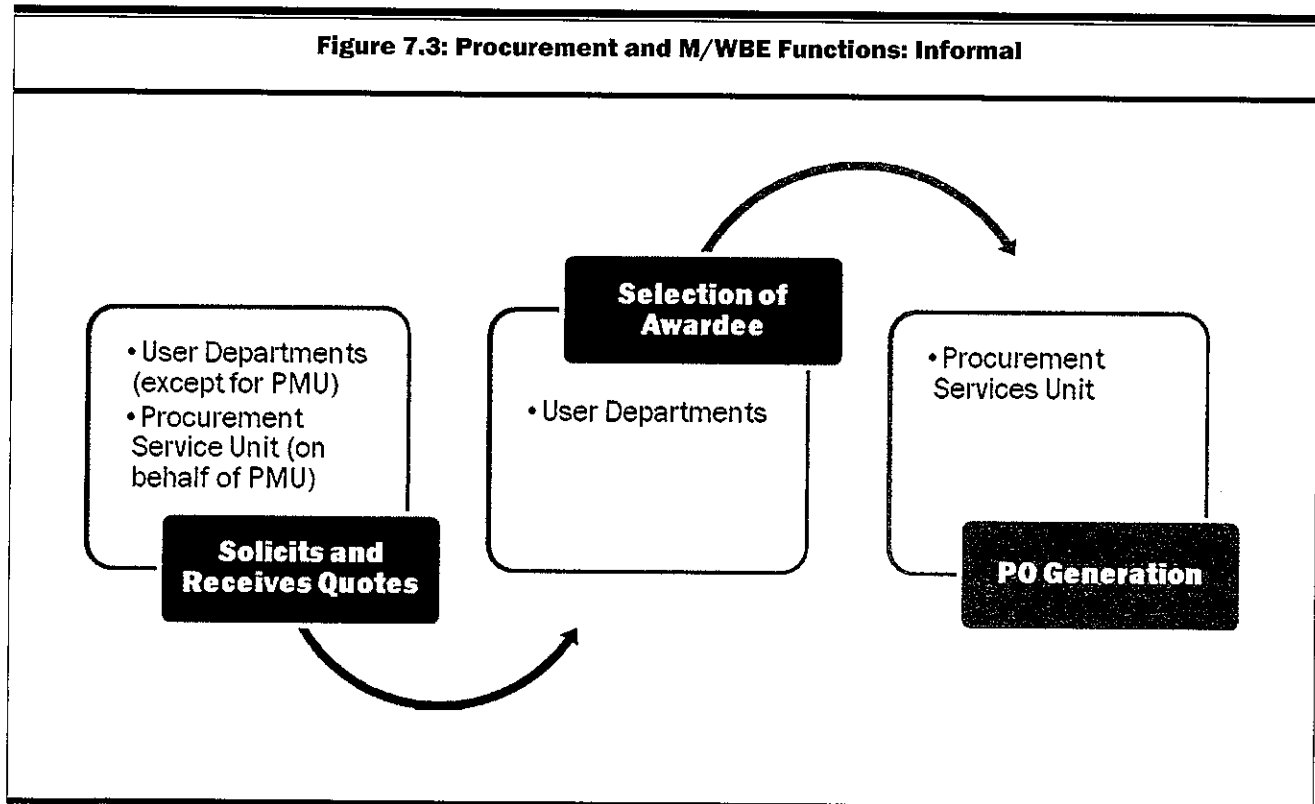
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On informal purchases, the user departments solicit and submit the quotes to The Procurement Services Unit for processing.

Interviews revealed that on purchases less than \$10,000, the user departments solicit quotes from vendors and submit the requisition to the Procurement Services Unit with the quote. Vendors are normally selected by the user departments based on past experience and the user departments' familiarity with the vendor. Contracts greater than \$10,000 (other than *Clean Water Projects*) are solicited by the Procurement Services Unit on behalf of the user department. Supplier Diversity is not involved in the solicitation of water and other projects.

Figure 7.3: Procurement and M/WBE Functions: Informal



Source: MDC Procurement Department; M³ Consulting

Formal bidding and selection is handled by the Procurement Services Unit, the user departments and the Program Management Unit (PMU.) PMU and the user departments are responsible for preparation of the technical specifications and determining whether specifications have been met.

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The Procurement Services Unit is responsible for incorporating the front-end documents, establishing a date certain for receipt of bids and advertising, bid tabulation and review. Both the user department and the Procurement Services Unit are responsible for determining responsiveness and responsibility.

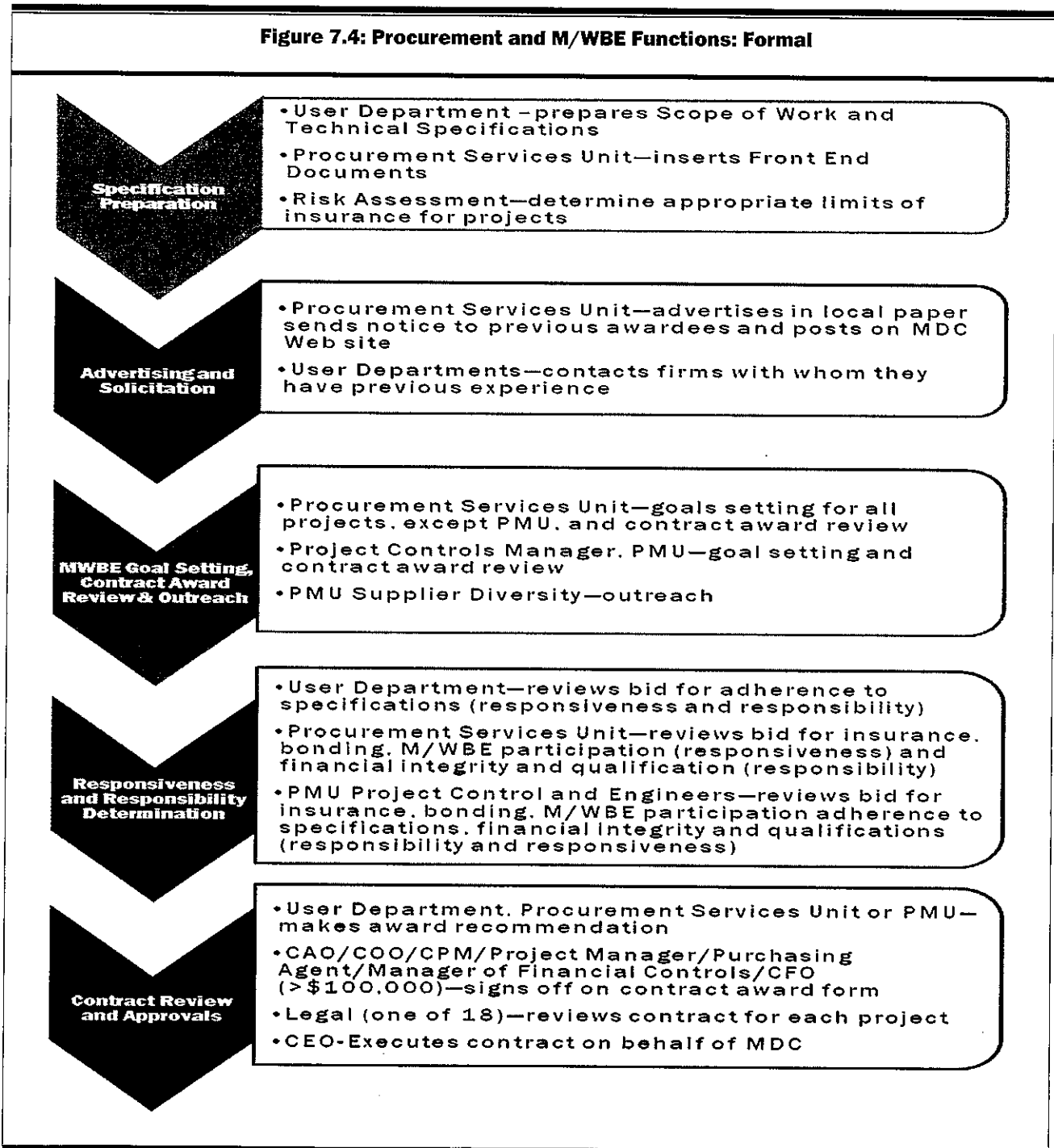
Supplier Diversity and M/WBE functions are handled by the Procurement Services Unit and PMU, Office of Supplier Diversity. M/WBE goals are included in contracts where state funding is used to fund the project. Those projects are primarily projects handled by PMU. Goals have recently been included in projects let by *Water Pollution Control* and *Water Supply*. These goals, however, for non-state funded contracts have not been adopted as standard operating procedure by the MDC.

At the time of the procurement interviews, Supplier Diversity did not have a role in the review of bid documents. The Purchasing Agent ensured the goal was included in the State-funded contract bid documents. Any involvement that Supplier Diversity has in document review occurred post-interviews.

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Figure 7.4: Procurement and M/WBE Functions: Formal



Source: MDC Procurement Department; M³ Consulting

PROCUREMENT FUNCTION

The Procurement Services Unit consists of the Purchasing Agent, Senior Buyer, and Two Buyers (one staff person is classified as a Buyer, but has no buying responsibilities). The Procurement Services Unit is located in the Financial Control Division of the Finance Department and reports to the Manager of Financial Control.

The Program Management Unit (PMU) is responsible for the bidding of projects being funded by the *Clean Water Fund*. These projects are a result of the consent decree and the consent judgment entered into by the MDC, the State of CT and EPA. Within PMU, the Manager of Project Controls is responsible for the solicitation, bidding and awarding of projects with an estimated value of \$10,000 or more. Supplier Diversity is involved in ensuring that the M/WBE goals are included in PMU projects being bid. The Procurement Services Unit incorporates goals in all other MDC projects. In fiscal year 2008, PMU awarded contracts in the amount of \$21,061,829 and the Procurement Services Unit awarded contracts in the amount of \$33,825,066.

Policies and Procedures

In reviewing the Procurement Services Unit Manual rules and regulations to determine their consistency with the attributes of well-written policies outlined earlier, the following observations were made:

- *Clearly defined functions of all personnel involved in procurement decisions*— MDC's policies and procedures do not adequately address the responsibilities and duties of the Procurement Services Unit and the staff responsibility of the Purchasing Agent, Senior Buyer and Buyers. Additionally, the policies and procedures do not address the responsibilities and functions of the PMU within MDC's procurement system. Further, the role of PMU has not been clearly defined within the organization.

The procurement manual does clearly establish procurement authority or the delegation of that authority. The Supplier Diversity role, however, has not been clearly and effectively delineated within the procurement process. The roles and responsibilities of the Supplier Diversity unit are not defined within the organization and points of interaction are not stated

within the procurement manual. Supplier diversity is limited to interaction with PMU staff and clean water projects.

- *Clear protocol for how and when to utilize various procurement methods*— Most procurement methods are adequately discussed in the policies and procedures. However, as will be discussed in detail later in this chapter, employees involved in the procurement process often did not follow stated policies and procedures.

The policies and procedures do not address, nor give clear direction regarding usage of different procurement methods and M/WBE requirements when Federal or State funds are utilized on projects.

Further, the parameters for usage and purchasing limits for procurement cards are not addressed in the Policies and Procedures.

- *Clear definitions of procurement terms, such as “responsible and lowest responsive bidder”*— The use of terms such as “responsible and responsive” bidders are not defined. There are no definitions for procurement terms generally used in the profession such as vendor list, purchase order, tabulation sheet, bidder, proposer.
- *Criteria for selection and evaluation of bidders by the major categories of procurement*— Criteria for selection and evaluation of Invitation to Bid, Request for Qualifications and Request for Proposals are outlined in detail in the MDC The Procurement Services Unit Manual.

The procurement manual does not include a determination of the process for how M/WBE participation will be scored and factored into the Invitation to Bid or Request for Proposal process. Additionally, the manual does not include consequences for the failure to include M/WBEs with the bid or proposal.

- *Criteria for evaluation of vendor/contractor performance after contract award*- These criteria are not outlined in the policies and procedures and therefore do not provide a process by which contractors/vendors receive feedback on their performance and the timeliness of the delivery of equipment and supplies or remedies to cure any problems that vendors may encounter.

- *Clear delineation of the sources of procurement definitions, particularly if municipal, state or federal codes are involved* - Delineation of the sources of procurement definitions are not outlined in the Procurement Services Unit Manual. These sources will have a tremendous impact on the utilization of M/WBEs since a state consent judgment and federal consent decree have been agreed to by the MDC for implementation of the *Clean Water Program*.

Clear, consistent and comprehensive explanation of the PMU's role in the procurement process is not apparent. The utilization of state and federal funds will require MDC adherence to federal and state regulations.

POLICIES, PROCEDURES AND PRACTICES ANALYSIS

Budgeting and Forecasting

Formal forecasting of MDC's procurement needs is not performed. The Procurement Services Unit prepares a budget for the unit as a member of the Financial Control Division of the Department of Finance.

MDC prepares five-year Capital Improvement Programs (CIP), which is a forecast of proposed capital projects for a five-year period. The CIP includes the specific program, project description, purpose for the project anticipated funding, estimated total project cost, funding sources, current fiscal year, capital budget, and five-year capital budget.

The Program Management Unit (PMU) prepares a fifteen-year Capital Improvement Program (CIP). The CIP for PMU includes the same elements as the CIP for Water Pollution Control and Water.

Other than Internet notification of future PMU projects and other MDC bids, the MDC, as a whole, does not provide forecasts of upcoming opportunities. Future procurements are included in annual budgets prepared by each user department and unit of MDC. The procurements are not detailed, but the budgets are a roadmap to future project information. The budget document includes all procurements planned for the upcoming fiscal year.

The PMU has engaged in several public forums to inform the public about *Clean Water* projects and the contract opportunities that may present themselves in the future. The forums were held as a response to the community's concern that millions of dollars will be spent without significant participation by M/WBEs. These forums were not held to provide for matchmaking, but as

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informational sessions concerning the types of projects that will be bid in the future by MDC. The information sessions provided general information on the types of projects to be bid, and was not specific in describing all of the elements of the project.

INFORMAL PROCUREMENT OR SMALL PURCHASES

Policies and Procedures

According to the MDC Procurement Services Unit Manual and the MDC Charter, purchases less than \$10,000 do not have to be competitively bid.⁹³ the Procurement Services Unit Manual states that at least three quotes must be obtained on small purchases. PMU does not procure goods or services less than \$10,000.

Table 7.1: Informal Procurement or Small Purchases					
Contract Amount	Solicitation Method Options	# of Quotes Required	Criteria / Basis for Award Required (Yes/No)	Advertisement or Web Ad Required (Yes/No)	Procurement/Department Personnel Information Required for Solicitation (Yes/No)
	Written				
Under \$10,000 before July, 2008 and under \$25,000 after July, 2008	√	1	No	No	No

Source: M³ Consulting

For this table (x)=not required and (y)=required

The utilization of procurement cards is not discussed in the Procurement Unit Manual or any internal memoranda generated by MDC. Procurement cards were instituted at the MDC in 2004. Approximately 400 employees have been issued procurement cards. The limit is \$1,200 for a one-time purchase and \$2,500 in a monthly cycle. The monthly cycle runs from the 8th of the current month to the 8th of the succeeding month. Managers may authorize an increase in the monthly limit to \$5,000. Once a purchase has been made, the departmental custodian receives the invoice from

⁹³ House bill HB5800 amends the MDC charter to allow small purchases up to \$25,000. In one situation prior to implementation, the procurement staff indicates this threshold had not been implemented but, one contract for air testing approved by the Chief Financial Officer for an amount greater than \$10,000. This procurement involved two bidders.

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the employee and forwards the information to the manager. At the end of the monthly cycle, the invoices are forwarded to the Procurement Services Unit for review.

The Procurement Services Unit is not involved in the selection of vendors for use with the procurement cards. Employees with procurement cards may buy from any vendor they choose, as long as the purchase does not exceed their authorized limit. If the vendor is not authorized for the expenditure on the respective employee's card, the employee contacts the Procurement Services Unit for an MDC authorization code that will allow the transaction to be consummated.

For example, an employee in fleet management is authorized to buy small auto parts with a procurement card, but is not authorized to purchase building material with a procurement card. The purchases allowed on each respective procurement card issued to an employee are consistent with the job duties of that employee.

The MDC authorization code may be issued for a one-time purchase or may be authorized permanently with the approval of the respective manager.

Procurement Practice and Staff Observations

Interviews with staff revealed that MDC personnel frequently obtained one quote, primarily from vendors with whom they are familiar, have conducted business in the past or for staff convenience. One interviewee stated "we've always done business with them since I have been here." This was a common retort amongst staff interviewed.

When a quote is solicited by the user department, it is common practice to compare the quote with a price paid for that item in the past. If the quote is reasonable in the user department's opinion, it is forwarded to The Procurement Services Unit with the requisition for processing.

Interviews with user department staff who handle small purchases stated they, often times, artificially sub-divide purchases to allow them to fall under the small purchase threshold or simply generate another purchase requisition when the small purchase threshold has been met. This was done to expedite the purchase for the user department.

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Review of the data for small purchases found that the M/WBE participation on small purchases was statistically insignificant at .08 percent. Small dollar purchases are defined as \$10,000.00 and below.

According to interviews, the buyers perform a cursory review of the quotations received from user departments, and if there are no glaring deficiencies and the price is competitive, approve the requisition and generate a purchase order.

When questioned about efforts to solicit from M/WBEs on small dollar purchases, interviewees stated that the Purchasing Agent handled those issues and they were not involved. Staff indicated that there was very little M/WBE utilization in small purchases because of the culture of the organization which is to solicit from the same vendors and user departments historically doing business with those that they have done business with in the past. Staff indicated the CEO and the CFO, however, have verbally indicated their desire to increase the utilization of M/WBEs.

The Procurement Unit Manual does not refer to an M/WBE policy and interviewees were unaware of a policy promulgated by the MDC that encouraged or required that M/WBEs be solicited on any informal purchases by the MDC.

The Purchasing Agent is the only employee interviewed regarding small purchases who has attempted to request a listing of available M/WBEs from the Minority Supplier Development Council, City of Hartford and The Connecticut Department of Administrative Services, attend tradeshow and vendor fairs. However, the Purchasing Agent does not meet with M/WBEs on a one-on-one basis, has not met with user departments to encourage them to be more open to using M/WBEs, and has not developed innovative and creative means to involve M/WBEs in informal purchases with the MDC. Prospective contractors and vendors are referred to the user department when seeking to do business with MDC.

7.5 Competitive Procurement Processes

FORMAL/COMPETITIVE SEALED BIDS

Bid and Contract Award Process

At MDC, formal/competitive sealed bids generally is used to procure materials, goods, and construction services exceeding the small purchase threshold of \$10,000.

Also, under the MDC chart, Sec 3-11, any “single item of capital expense not regularly recurring” in excess of \$5 million dollars must be approved by two-thirds vote of the board and a majority of the electors of the district. Any appropriate “in one year for the purpose of meeting a public emergency” over \$10 million must be similarly approved. MDC interprets these charter requirements as an upper limit on the size of its contracting opportunities. Under the 2006 Clean Water referendum, however, these charter requirements do not apply to Clean Water projects.

Table 7.2: Formal/Competitive Sealed Bids					
Contract Amount	Solicitation Method Options	# of Bids Required	Criteria / Basis for Award Required (Yes/No)	Advertisement or Web Ad Required (Yes/No)	Project Manager Information Required for Solicitation (Yes/No)
	Written				
Over \$10,000 before July, 2008 and over \$25,000 after July, 2008	√	1 ⁹⁴	Yes	Yes	Yes

Source: M³ Consulting

MDC has a highly detailed bid and contract award process that often leads to delays in contract execution. Below is a summary of the bid process.

- User department completes an Approval for Bidding form, which includes the cost estimate, requisition number, funding source (capital or operating budget), fund center, and grant or loan eligibility status.

⁹⁴ Best Practices in Procurement suggest that two bids should be the minimum number of bids received. Two or more bids equal competition.

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- The project is approved for bidding by the project manager, manager of the division, Chief Administrative Officer/Chief Operating Officer/Chief Program Manager, Manager of Financial Control and the Chief Financial Officer (if over \$10,000).
- Specifications are prepared in draft form jointly by the Procurement Services Unit and the Project Manager. On PMU projects, the PMU project controls manager prepares the specifications.
- If it is a labor-only contract, risk services reviews the specifications to establish insurance requirements and the Budget Analyst reviews the contract to determine the availability of state funding and qualification for grants.
- The Procurement Services Unit reviews and edits the final ITB or RFP and forwards to the user department for approval. The Project Manager reviews and approves the document for copying and distribution.
- The contract is advertised, using several vehicles: two consecutive weeks in the local paper, the Connecticut Department of Administrative Services Web site, the MDC Web site, and occasionally in the Northend Minority News; mail to previous bidders; mail to firms identified by project managers as interested; pick up from MDC. There is no charge for plans and specifications. There is no formal vendor list, however, project managers and buyers maintain lists of those they believe may be able to provide the services requested. Project managers and others with procurement responsibilities maintain book lists.
- User department completes vendor number request forms issued by finance.
- The MDC clerk/administrative support receives and stores bids in a secure location. After the closing of receipt of bids, the Procurement Services Unit publicly opens and reads the bids, and then reviews them for responsiveness and prepares the bid tabulation. The safety program is forwarded to the Safety Department for their review and approval.
- The Project Manager and the Procurement Services Unit then determine responsiveness and responsibility.
- The Procurement Services Unit prepares a contract award form. The award form is signed by the Project Manager, Chief Administrative Officer/Chief Operating Officer/Chief Program Management Unit as appropriate, Purchasing Agent, Manager of Financial Control, and Chief of Financial Control.

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- If state funded, prior to award, MDC forwards to the state a certified copy of the bid, bid tabulations, copy of the advertisement from the Hartford Courant, pricing pages from the low bidders contract and communication to the Board that an award is imminent to the contractor. On non-state funded contracts, the contract award form is signed by the various parties and an award letter is issued to the low bidder.
- The award letter covers insurance and bonding requirements, and requires the listing and dollar amounts of the M/WBEs that will be participating on state projects.
- The Procurement Services Unit and/or the Program Management Unit develop the contract document and submits it to one of MDC's 18 attorneys/law firms.
- The contract is forwarded to the Chief Executive Officer for his signature. The contract is copied, the original is retained by MDC Clerk and one copy mailed to the contractor and one copy retained in the Procurement Services Unit and/or Program Management Unit.

Bidder Frequency

MDC has a culture of relying on a small number of vendors, repetitively and utilizing on-call contracts. Employees state "this is the way we have always done business." This attitude impacts the community perception of MDC's openness and fairness in contracting and is reflected in the number of bids that MDC receives on its ITBs and RFPs.

Table 7.3: Construction Bidder Frequency; FY 2005-FY 2007 Contracts 10K and Above		
Number of Bids Received	Number of Contracts	Percent of Contracts to Receive Number of Bids
1 Bid	43	20%
2 Bids	63	29%
3 Bids	51	23%
4 or More	63	28%
TOTAL	220	

Source: Data collection of contracts data, M³ Consulting

The MDC has shown improvement in the number of bids received on their 2008 solicitations (as evidenced by Table 7.4). While the percentage of bids with only one bid dropped from 20 percent to 15 percent, this number is still abnormally high. In most entities, one bid contracts are rare and used primarily for sole source and emergency purchases. MDC showed the greatest increase in FY 2008 in bids with 4 or more bidders, reflecting that MDC has begun to improve its efforts to increase its

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bid pool. Thirty of the 75 contracts are related to infrastructure work or utility related work, which includes plant work, piping, trenching and other services germane to MDC's core business.

**Table 7.4: Construction Bidder Frequency; FY 2008
Contracts 10K and Above**

Number of Bids Received	Number of Contracts	Percent of Contracts to Receive Number of Bids
1 Bid	11	15%
2 Bids	13	17%
3 Bids	8	11%
4 or More	43	57%
TOTAL	75	

Source: Data collection of contracts data, M³ Consulting

Pre-Qualification

Construction projects that have state funding involved and in excess of \$500,000 require the contractor to be prequalified by the State of Connecticut Department of Administrative Services. Additionally, subcontractors with contracts in excess of \$500,000 must be prequalified.⁹⁵ Contractors apply for DAS prequalification by submitting a signed application and a nonrefundable application fee. The application fee is dependent upon the contractor's aggregate work capacity and ranges from \$600 for contractors with a maximum job capability of \$5 million or less to \$2,500 for contractors with a maximum job capability of \$40 million or more. The information required includes, but is not limited to:

1. Key personnel;
2. Project history which includes the last 10 jobs and all subcontractors used on those jobs;
3. Classifications, projects and references;
4. Financial information which includes a letter from the bonding company providing the aggregate work capacity (AWC) and single limit bonded. The aggregate work capacity is the limit of bonding supported by the bonding company. Contractors are encouraged to apply for a program AWC at or near their bonding capacity.
5. Financial Statement prepared by a licensed Certified Public Accountant (balance sheet and P&L statement); and,

⁹⁵ Chapter 58a, Section 4a-100, Connecticut State Statutes.

6. Status letter from the user department.

The pre-qualification process may limit the growth of M/WBEs by including an aggregate work capacity determination, as firms are limited in bidding on projects larger than the AWC dollar value. Further, M/WBEs are required to utilize the services of a CPA to develop financial statements for the pre-qualification.

REQUEST FOR QUALIFICATIONS/REQUEST FOR PROPOSAL

Section G-6 of the General Ordinances of the MDC establishes the definition of professional services, which includes engineering, architectural, environmental, management studies and advisement, project management, automation and computer systems and design.

An issuance of a RFQ commences the process, whereby providers of the services are invited to present their qualifications to provide the services requested. The evaluation criteria include:

1. Prior experience in projects of a similar nature;
2. Past performance on similar projects;
3. Qualifications of personnel and proposed subcontractors; and,
4. Financial capabilities and a list of all current pending litigation.

Additionally, all firms must include a statement of their affirmative action policy, completion of MDC's Fair Employment Practices Qualification Form for Vendors and Bidders and evidence of insurance consistent with the limits established in the RFQ with their proposal.

A Selection Committee is developed. The MDC Clerk prepares a report of price proposals for evaluation and recommendation of award. Typically, the award is made to the lowest proposer. Section G6-f, however, of the MDC General Ordinances allows MDC to award to other than the lowest proposer if the CEO determines that the proposal of the finalist not having the lowest fee proposal offers a specific benefit to MDC. Section G6-f of the MDC General Ordinances gives the District Manager (CEO) flexibility in case the lowest bidder is not the most qualified bidder.

Interviews revealed that the PMU has established 17 Engineering firms that have been deemed qualified to provide services on the *Clean Water* projects. One M/WBE is included in the pool of 17

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firms. This M/WBE has not received any contracts. Ten engineering firms are qualified for Combined Sewer Overflow (CSO) projects and seven are qualified for Waste Water Treatment plant projects. One M/WBE is included on both lists.

The PMU develops a scope of work for various elements of an engineering project and selects the three most qualified. Then, the project is awarded to the lowest bidder. The M/WBE mentioned, has not been awarded contracts as a prime contractor, but has been awarded sub-contracts.

When specific scopes of work are developed, three firms from the list of 17 are selected to receive a technical proposal. Award is made to the firm submitting the lowest fee proposal. The other two firms are returned to the list and are eligible to propose at a later date when the opportunity rotates back to them. The goal of PMU is to allow each of the firms on the list an opportunity to provide services. Other user departments indicated that they have used the RFQ/RFP process to establish similar on-call Engineering Services contracts in the past and followed the same procedures as outlined above. The MDC has not attempted to prequalify construction or professional service firms for future projects.

CHANGE ORDERS

The policy and procedures manual does not address change orders. However, there is a change order request form that is signed and approved by the contractor, Project Manager/Consultant, Manager, Chief Administrative Officer/Chief Operating Officer/Chief Program Management, and Manager of Financial Control. If the change order amount exceeds \$100,000, the Chief Financial Officer must sign the change order request form.

A Change Order Request Form is utilized primarily on construction projects when there are changed conditions, alternate deductions, alternate additions and an increase or decrease in cost.

M/WBE goals apply to PMU change orders because of the efforts of the Project Controls Manager. Supplier Diversity does not have a role in this process according to procurement interviews. M/WBE goals are not applied to all MDC contracts.

BONDING, LICENSING AND INSURANCE REQUIREMENTS

On construction projects, MDC requires bonds in the amount of the bid. Requirements are as follows:

- Performance and payment bonds—100 percent;
 - There is no bonding threshold for MDC construction projects. Findings were confirmed through discussions with PMU Engineers. It was also revealed that State of Connecticut does not have bonding thresholds for construction projects.
- Liability insurance coverage as established by risk management after review of the services requested and the risks involved in providing the services; and,
- Prequalification by the Connecticut Department of Administrative Services, if the contract is state funded and is \$500,000 or more. Subcontractors must be prequalified if the subcontract is \$500,000 or more.

There is no evidence in the procurement manual or state law that MDC has a threshold that allows for the waiving of payment and performance bonds.

EMERGENCY PURCHASES

Emergency purchases are defined as those purchases that require an extraordinary effort to protect the lives, welfare and well being of customers and equipment in the MDC customer base. If a request for an emergency purchase exceeds \$10,000, the Purchasing Agent notifies the Manager/Director of the user department and advises him/her to contact the CEO for approval. If the emergency is not approved, standard contracting procedures are to be followed. The process below outlines emergency spending procedures.

1. MDC Clerk (Administrative Assistant to the Board) contacts MDC Board of Commissioners.
2. MDC Clerk (Administrative Assistant to the Board) calls a meeting of MDC Board and prepares an agenda to outline the emergency.
3. MDC Board must be in agreement that an emergency does exist to proceed.
4. MDC Board votes to waive a formal contract.
5. After obtaining a funding source, the Procurement Services Unit creates an Emergency Purchase Order, maintains a copy of the Board resolution and a copy of the Purchase Order.

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Although MDC has the above procedures for emergency spending, the MDC does not engage outside contractors for emergencies. Emergencies are handled by in-house staff.

7.6 M/WBE Efforts

Prior to the creation of the Program Management Unit, there was not an M/WBE program within the MDC. A diversity officer resided in the Human Resources department, but the duties related to employment. The *Clean Water Program* was the impetus that initiated the creation of three positions to implement the M/WBE program within the PMU. The positions created were Manager, Supplier Diversity; Supplier Diversity Officer; and an Administrative Assistant. The HR diversity officer moved from Human Resources to PMU. PMU created the position of Supplier Diversity Manager within the Office of Supplier Diversity. The Office of Supplier Diversity reports to the Chief of the Program Management Unit and is responsible for the development, coordination and monitoring of the M/WBE Program.

As currently structured, the MDC has not clearly identified the roles and responsibilities of the Office of Supplier Diversity. The M/WBE program is not integrated within the MDC procurement operations and the office has no significant influence on the procurement strategies of the organization.

In response to the community's concern about inadequate M/WBE participation, the legislature enacted House Bill 5800. The purpose of the bill is to require that MDC let contracts to the lowest qualified bidder and that provisions for minority business participation are authorized to be included in bid documents. The bill also amends the MDC charter to allow small purchase procedures for any expenditure of up to \$25,000. The bill further mandates that the MDC set aside \$200,000 to be awarded to a non-profit agency to provide construction training services.

Within the current organizational and legislative construct, M³ Consulting sought to analyze MDC's M/WBE programmatic initiatives. As discussed previously, M³ Consulting reviews MDC's M/WBE efforts to determine its effectiveness in the following measures:

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Figure 7.5: M³ Consulting Six Essential M/WBE Program Elements

1.	Outreach and Matchmaking	→efforts to increase the business community's awareness of an entity's procurement and contract opportunities and match M/WBEs to specific contract opportunities
2.	Certification	→eligibility criteria for M/WBE participants
3.	Technical Assistance	→informational and strategic support of businesses to meet the entity's M/WBE plan objectives
4.	M/WBE Inclusion in Bid Opportunity	→the mechanism by which the entity assures that material consideration of M/WBE participation is given in the award of a contract
5.	Contract Award Review	→ensuring adherence to M/WBE plan goals on all contracts after execution of the contract
6.	Organizational Performance Evaluation	→a comparison of performance results to the entity's goals to determine policy successes, strengths and weaknesses, and performance improvement areas

Source: M³ Consulting

OUTREACH

Within the last year, MDC has increased its outreach efforts. New M/WBE contractors are being recruited and made aware of the opportunities available at MDC. Most recently an out-of-state MBE was recruited who bid and was awarded a *Clean Water* contract. Local contractors continue to be wary of MDC, as discussed in Chapter VIII, Anecdotal Analysis.

MDC recently hosted an outreach session for subcontractors at the Business Resource Center operated by the Hartford Economic Development Corporation. The prime contractor that attended the meeting had been recently awarded a contract with MDC. The prime contractor, however, had awarded all available subcontracts on the project, but indicated they would consider those who attended for future projects.

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The PMU is actively engaged in community meetings to keep the public aware of the status of future *Clean Water Projects* and is attempting to publicize the contract opportunities available from the *Clean Water Program* through community forums and bid solicitation on the MDC Web site. Both the Project Controls Manager and the Supplier Diversity Manager attend these meetings.

Furthermore, MDC has entered into two Strategic Alliances that are discussed below.

Strategic Alliance Memorandum with the United States Small Business Administration

MDC and the US Small Business Administration entered in a Strategic Alliance Memorandum on November 19, 2008. The purpose of the memorandum is to develop a working relationship with SBA to strengthen and expand small businesses in the area. The agreement allows MDC to receive information about SBA programs, speakers, resource partners of SBA, such as Small Business Development Centers, SCORE and Women's Business Centers. Additionally, SBA is allowed to provide information to MDC staff on SBA programs and services that may be available to small businesses in the area.

Memorandum of Understanding with the Minority Business Development Agency, New York National Enterprise Center, and Harford Economic Development.

MDC and the above resource partners entered an agreement on November 13, 2008.

The purpose of the strategic partnership is to assist in the development of local MBEs, WBEs and DBEs for participation in the MDC's *Clean Water Project*.

The Business Resource Center operated by Hartford Economic Development Corporation will be expanded to complement a Contractor Resource and Opportunity Initiative. The initiative will provide assistance in completing the MBE, WBE and DBE certification; contract financing; bonding applications; scheduling; training; safety program development; and outreach activities.

CERTIFICATION

MDC does not itself conduct certifications. However, it accepts certifications from the City of Hartford, the Connecticut Department of Administrative Services, and the Massachusetts/Connecticut National Minority Supplier Development Council. Assistance completing

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certification affidavits is provided by the Hartford Business Resource Center operated by the Hartford Economic Development Corporation.

TECHNICAL ASSISTANCE

The MDC has not provided technical assistance to M/WBEs through the use of seminars such as “how to bid with the MDC” which would include instructions on what is required when a firm bids with MDC, i.e. insurance, bonding, licensing requirements and DAS prequalification if necessary. While MDC has developed memorandums of understanding with technical assistance service providers, the potential of these relationships have not yet been maximized. MDC has not established information flow to the community or the service providers which clearly articulate:

- The type of work/contracts MDC will let;
- The type of businesses that can bid on these projects; how small businesses can marry the services that they provide to MDC’s project needs; and,
- The type of employees that will be needed on these projects; how local citizens can marry their skills to MDC’s project needs.

MDC currently refers M/WBEs to the Business Resource Center to provide technical assistance in business marketing, contract financing, preparation of bid payment and performance bond applications, estimating, bidding, scheduling and development of contractor safety programs.

M/WBE INCLUSION IN BID OPPORTUNITIES

Goal Setting and Good Faith Efforts

The Connecticut Department of Environmental Protection has established goals of 3 percent MBE and 2 percent WBE participation for state funded projects. The MDC has established a goal of 6 percent MBE participation and 2.5 percent WBE participation for *Clean Water* projects. These goals are applied consistently to PMU opportunities by the Project Controls Manager. The Office of Supplier Diversity has not been significantly involved in the establishment or application of PMU goals.

During the past year, MDC has applied the above goals on other MDC contract opportunities. The intent was to apply the goals to projects with state funds. However, because of the lack of clarity on

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issues of M/WBE goals and participation within the organization, the goals have been applied inconsistently, sometimes to non-state funded projects.

The MDC includes an M/WBE subcontracting form in all of its bid documents on which prime contractors identify the M/WBE subcontractors that they intend to use if awarded a contract. In the past, the document was allowed to be submitted after the apparent low bidder was determined. Currently, the document is submitted with the bid. Failure to submit the M/WBE subcontracting form is cause for rejection of the bid. Based on interviews, MDC instituted this procedure, in part, to stop bid shopping by prime contractors on MDC projects.

M/WBE requirements are included in the invitation to bid. Engineers are informing bidders during the pre-bid conferences of the M/WBE goals included in the project. Supplier Diversity does not attend pre-bid conferences or review bid documents prior to invitations to bid being issued.

Because there are no "good faith" outreach standards stated in the bid documents, the MDC has no objective means to determine whether a contractor that has not actually solicited M/WBEs to submit bids on subcontractor work is non-responsive to the "good faith" requirements.

Advertising and Solicitation

All available business opportunities are currently advertised in the Hartford Courant and the MDC Web site. No special efforts to make M/WBEs aware of business opportunities through trade fairs or community forums are being conducted on a routine and comprehensive basis. No reviews of current or upcoming contract opportunities are taking place which could be utilized as a mechanism to match M/WBEs with prime and subcontract opportunities.

It was found that Supplier Diversity did not attend pre-bid conferences during the procurement interviews. Post-interviews, it was revealed that Supplier Diversity does attend PMU pre-bid conferences, but not pre-bid conferences for other departments.

Because Supplier Diversity does not review bid documents prior to solicitation, potential opportunities and respondents are not identified.

7.7 Contractor Award Review

MDC reports on M/WBE utilization at the contract award stage only. After award, as a consequence, monitoring of M/WBE compliance does not occur within the organization. Supplier Diversity is unable to determine if M/WBEs are participating on projects, providing the services in a timely manner, having project related problems resolved expeditiously and being paid for the services provided on a consistent and equitable basis.

7.8 Organizational Performance Evaluation

The MDC does not generate reports on its procurement activity or its M/WBE activity. The lack of reports does not allow the organization to measure its performance and identify areas of concern and implement corrective actions in a timely fashion.

7.9 Conclusions

Efforts to involve M/WBEs in the MDC contracting process are applied inconsistently throughout the organization, even though management has stated that it desires the implementation of an M/WBE program. Procedures are not in place that allow the Procurement Services Unit, Supplier Diversity, user departments and PMU to work in concert with each other to maximize M/WBE opportunities. Reporting procedures have not been established that will allow Supplier Diversity to be aware of projects in the planning stage and have reports of on-going activities reported on a monthly basis. Additionally, a structured matchmaking, technical assistance and outreach program has not been developed that will allow MDC to truly involve the total community in all contracting opportunities with the MDC.

Goal setting on projects is not project-specific. The MDC Procurement Services Unit and Supplier Diversity are not isolating the various work elements within bid documents and identifying M/WBEs who are potentially available to provide the service. This methodology would enable the MDC to set goals that at times, may be higher than the current goals.

When combined with a procurement environment that has historically focused on doing business with a small number of incumbent vendors, the MDC procurement environment presents many challenges that make it difficult for M/WBEs to do business with the MDC.

Chapter 8: Anecdotal Analysis

8.1 Introduction

As part of the Disparity Study process, M³ Consulting sought to explore the experiences of business owners in the greater Hartford area who seek business opportunities with MDC, as well as other public and private sector entities. This chapter contains a categorized summary of anecdotal evidence collected concerning the issues and, in particular, barriers minority- and women-owned business owners face as they attempt to transact business with The Metropolitan District Commission.

The anecdotal data was gathered through a series of one-on-one in-depth interviews conducted by M³ Consulting. As part of this research, M³ Consulting interviewed minority and women business owners, as well as White male business owners. The objective of the in-depth interviews was to capture the experiences, attitudes, issues, and perceptions of business owners seeking opportunities with The Metropolitan District Commission, and with other public and private organizations in the greater Hartford area.

The particularized accounts of business owner experiences contained in this chapter should be considered in tandem with the quantitative evidence regarding marketplace disparities discussed in the Availability, Utilization and Disparity chapters of this report. The anecdotal information may be used to further assess or identify the existence of racially-based or gender-based marketplace barriers and to corroborate statistical findings.

The framework for the collection and analysis of anecdotal evidence for this study has been suggested by the U.S. Supreme Court in the case *City of Richmond v. J.A. Croson* 488 U.S. 469 (1989). In that case, the Court held that particularized anecdotal accounts of discrimination could help establish a compelling interest for a local government to institute a race-conscious remedy. Moreover, such evidence can provide a local entity with a firm basis for fashioning a program that is narrowly tailored to remedy identified forms of marketplace discrimination and other barriers to minority and women business participation in contract opportunities.

8.2 Anecdotal Interview Methodology

The anecdotal evidence contained in this chapter was gathered by conducting confidential, in-depth interviews with White male, minority, and women business owners.

To identify business owners to contact for in-depth interviews, M³ Consulting was provided a list from the MDC bid and book list database. This list was compared with the Master M/WBE list to identify which vendors listed were M/WBEs.

The Master M/WBE List included M/W/DBEs from Connecticut DAS, Connecticut DOT, City of Hartford, City of New Haven, Census Bureau, SBA CCRS, and MDC CWP M/WBE contractors.

The compiled list for sampling only included those firms located in the greater Hartford area, determined by county name and zip code. Firms on the list not included in the greater Hartford area were removed. Each vendor listed was identified in one of the five procurement categories: Architecture & Engineering, Construction, Professional Services, Non-Professional Services and Goods & Supplies. Duplicate vendors within each procurement category were removed.

Initially, from this list, a 252-firm random sample list was developed. Each firm was contacted for one-on-one interviews, including White male-, minority- and women-owned firms. M³ Consulting attempted to contact each of the firms a minimum of three times. In-person one-on-one interviews were scheduled with 16 company owners.

M³ Consulting sought to augment the one-on-one interviews with focus groups. We enlisted the assistance of the Hartford Economic Development Corporation, Business Resource Center (BRC) and the Minority Construction Council in scheduling focus groups. BRC contacted 25 companies to participate in focus groups. A total of four focus groups were conducted, consisting of 17 business owners and representatives of Hartford civic and community organizations.

In total, M³ Consulting completed in-depth interviews with 33 business owners civic organizations, as shown in Tables 8.1 and 8.2 by Race/Gender and by Industry Category. The categories in which they fall are shown in the following tables:

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Table 8.1 One-on-One In-Depth Interview and Focus Group Participants	
Interview Count	Firm Owner Race/Gender
8	African American-owned
13	Hispanic American-owned
5	White male-owned
3	Woman-owned
1	Native American-owned
2	African American Civic Organization
1	Hispanic American Civic Organization
33	Total

Source: M³ Consulting

Table 8.2: One-on-One In-Depth Interview and Focus Group Participants	
Interview Count	Firm Industry Category
2	Architecture & Engineering
19	Construction
3	Professional
2	Non-Professional Services
4	Goods & Supplies
2	African American Civic Organization
1	Hispanic American Civic Organization
33	Total

Source: M³ Consulting

Interviewers used M³ Consulting's in-depth interview guide to probe and direct questions. Interviews were taped only when interviewees gave express permission.

The M³ Consulting team analyzed all of the interviews. Common themes across interviews were culled for further qualitative analysis. For the purpose of constructing this chapter, M³ Consulting grouped similar and repetitive themes under 10 topic headings. Interview excerpts are provided to

support each theme and the race and/or gender are indicated. The excerpts illustrate interviewee experiences relating to each theme heading.

Due to low overall turnout for one-on-one interviews and focus groups, M³ Consulting has recommended the anecdotal testimony be supplemented by a public hearing.

8.3 Interview Confidentiality

Each interviewee was assured his or her identity and the identity of his/her company would remain confidential, barring a court order that requires M³ Consulting to disclose this information. Efforts to verify or find corroborating data that supports any claim made during an anecdotal interview may subject the interviewee to foreseen and unforeseen reprisals. Therefore, in using and following-up on the comments reflected in this chapter, MDC should take measures to protect interviewees from any retaliatory actions by others.

8.4 Complaint Process

To ensure that MDC has a process to handle any issues arising from this analysis, including complaints or retaliatory actions, M³ Consulting is providing the outline for a nondiscrimination complaint process which can be utilized by MDC to fairly and equitably resolve any such actions.

Complaints brought against any department, department personnel, MDC contractor or a subcontractor on a MDC-funded project should be accepted and processed.

The processing of any such complaint should include the following steps:

- Step 1. Complainant should submit a written claim.
- Step 2. The complainant should be offered an opportunity to remain anonymous, to the extent possible, while an informal fact finding investigation is conducted. During the fact finding investigation, the aggrieved party and the respondent should be offered an opportunity to mediate the complaint.
- Step 3. If either party refuses to mediate, or if mediation fails to result in a settlement or a resolution, then a formal investigation should commence in which the complainant's

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identity is disclosed, evidence is gathered, conclusions are drawn and recommendations issued.

- Step 4. The recommendations may include a range of remedies, depending on the conclusions and the gravity of the harm. The remedies could include a notation next to a vendor's name in the Contract Administration vendor file noting findings of discrimination or a notation in personnel file detailing discriminatory conduct. Other recommendations may be as extreme as debarment from contracting with the agency for a period of time; termination of a contract; or if the discriminatory act was committed by a department employee, the department may terminate the employee.
- Step 5. Once the recommendations are prepared, the department should seek to encourage the parties to conciliate and resolve the matter.
- Step 6. If neither party is willing to settle the matter, recommendations should be submitted to the appropriate decision-making body within the department and remedial action taken.
- Step 7. Annually, the department should develop a tracking mechanism to monitor the complaints that are being filed. Any patterns that emerge from the data should be carefully studied and addressed to reduce or eliminate, as possible, those patterns.

This process will give contractors an opportunity in a structured environment to be heard and their complaints to be duly registered and addressed. To the extent that patterns of discriminatory conduct emerge from the regular tracking and reporting of complaints, this information can be used to support possible race- or gender-conscious remedies. This process is the same concept that is recommended in M³ Consulting's Conclusions and Recommendations chapter of this report (see the recommendations concerning Non-Discrimination Policy).

8.5 Anecdotal Interview Findings

The following sections indicate the recurrent themes in the discussions found throughout the interviews. Each theme includes anecdotal comments directly from the interviewees illustrating the topic heading.

- Theme 1: Favoritism and access to opportunities
- Theme 2: Access to financing and capital and insurance bonding
- Theme 3: Access to public sector and private sector opportunities
- Theme 4: Cooperation of White male-owned firms with M/WBEs
- Theme 5: Exclusionary practices that create barriers to contracts
- Theme 6: Impact of the bid process
- Theme 7: Need for and effectiveness of M/WBE Programs
- Theme 8: Failure to pay in a timely manner
- Theme 9: Access to public sector opportunities
- Theme 10: Racial and gender stereotyping
- Theme 11: Suggestions and comments

Lastly in this chapter, overall observations drawn from the interviews are discussed.

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Theme 1: Favoritism and access to opportunities: *This section addresses preference based on the race or gender of the firm, or familiarity or past experience that The Metropolitan District Commission or a prime contractor has had with a particular firm. It also focuses on concerns expressed by some contractors that they did not have access to opportunities and/or were not given the opportunity to bid in the public and/or private sectors.*

Interview 1: A Hispanic American owner of a non-professional firm would welcome doing business with the public sector, but feels it has limited opportunities for that type of business. The firm has performed two small jobs for MDC two years ago after being solicited by MDC. It has not been able to gain any additional business from MDC since then. The owner has attended seminars hosted by MDC and understands that the MDC was very satisfied with its work but is not aware if the MDC has referred his firm to any of its prime contractors.

Interview 2: A Hispanic American owner of a construction company only does public sector work using union labor. The owner feels that his firm is not competitive, due to higher pricing, when it attempts to get private sector work. The firm has performed both prime and subcontractor roles in the public sector. This firm has attempted to do business with the MDC many times, attended meetings with the purchasing department, visited MDC facilities leaving behind brochures about the firm and spoken with purchasing managers but has not been successful in obtaining any business from the MDC. He knows that some of his competitors do business with the MDC regularly and has attempted to subcontract to them on MDC projects but has not been considered. MDC has never solicited the company, even though the owner has attended MDC seminars on doing business with the MDC. He feels that the MDC has not given a fair opportunity to do business with it and that MDC only provides work to entrenched suppliers.

Interview 3: An African American-owned construction company has attempted to do business with the MDC to no avail. The firm has been on MDC approved vendor list for over a year, but never been called to bid on a project. This

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owner has not bid on a MDC contract, because they are unfamiliar with how to do business with MDC.

Interview 6:

A WBE construction company is a union shop for plumbing and HVAC and a non-union sheet metal shop. The company does mostly public work because she feels that's where the market is. The firm has bid as a subcontractor on MDC projects, but never received an award from any MDC prime contractor.

She is regularly solicited by primes on State and town school projects that do not require M/WBE participation. Prime contractors also regularly solicited the firm's participation on City jobs with M/WBE requirements. The company actively identifies what prime contractors have gotten the plans for jobs, and then seeks to position herself as their subcontractor.

Interview 7:

One African American-owned construction company has performed as a subcontractor on one MDC project during 2008. His clients are mostly in the private sector. The firm has received mail regarding opportunities at the MDC and has attended MDC-sponsored seminars. The owner feels that the MDC seeks different prime contractors and/or suppliers.

Interview 9:

A Hispanic American-owned construction company feels that he is an outsider with the larger firms receiving most of the business. Further, he believes that these firms seem to understand how to do business with MDC.

This firm, which is over 10 years old, has attempted to do business with the MDC with no success. The firm is a union shop that works mostly in the private sector, where the owner feels there are more jobs at a better price. The owner feels his higher labor costs as a union shop and the firm's relatively small size holds back growth.

The firm is seldom contacted by White male-owned businesses for any type of business opportunity. As a union shop the owner feels that he is at a disadvantage against other firms in his industry that use illegal alien workers.

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- Interview 10:** An African American-owned construction company has been occasionally contacted by White male-owned businesses regarding contracting opportunities, but has not been awarded any subcontracts.
- Interview 11:** A WBE goods & supplies company is regularly solicited for all types of contract opportunities because of its unique product line sold by manufacturing reps and brochure. Her products are used on all types of projects through her distributors.
- Interview 12:** A White male-owned goods & supplies company has done business with the MDC through its Fleet Maintenance division. It did one job two years ago. The owner feels that the MDC is open to doing business with M/WBEs. The company has not received solicitation calls from the MDC. The business obtained from the MDC was not through the bid process, but from a referral from another client.
- Interview 13:** A White male-owned architecture & engineering firm regularly bids and is awarded prime contracts with the MDC. One of the principals feels that MDC has a need for the services his firm provides. The firm deals with MDC's Engineering department and feels that MDC is open to doing business with M/WBEs. The company attends several MDC seminars and workshops in addition to visiting persons responsible for bids and procurement at MDC. The principal feels that there have been occasions in which MDC's bid process is unfair, in that the quality of bids submitted may vastly differ causing a judgment to be made based on price.
- Interview 15:** An African American owner of a construction company reports that the firm has started receiving invitations to bid from MDC since the inception of the Clean Water Project.
- Interview 16:** The White male owner of a construction company reports that in the early days, when his father founded the firm, contract opportunities were acquired by word-of-mouth. He reports that the founder believed that your strength is

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in diversification. The company has done municipal, federal, retail, educational, environmental, commercial, residential, medical and industrial construction. "If any of these markets are down, it is easy for us to go to another market and thrive. You have to be capable and competent in many types of fields."

Interviewee indicates that he finds out about public sector bids through the Dodge report, Reed report and New England Construction News and the firm's experiences with MDC have all been positive. He states that his greatest legacy is the continuation of the firm during times when development in the area was slow or down from previous years.

FG #1 P#1:

An African American owner of a professional services firm reports that project management work is awarded to the same firm on a consistent basis. He reiterates that award has to be tied to their connections because no one else is getting the work.

The owner states that MDC did not have to go out-of-state to find a contractor to bid a recent project. He wonders why local firms were not given the opportunity to joint venture with the out-of-state firm. Further, he believes that the out-of-state firm had no more experience than local firms.

He also reports that MDC is not inclined to create small opportunities for companies to get in the door. Further, the participant states that MDC has systems in place to keep small and minority firms out.

In addition, he believes that neither the majority nor minority construction community has the capacity and experience to perform Clean Water projects.

Finally, he believes that MDC intentionally excludes M/WBEs from getting work. This owner does not believe that any opportunities will be available in his line of work and reports that he has little faith in the current MDC management.

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FG #1 P#2:

A White male owner of a professional services firm reports that his M/WBE clients were initially told that they didn't have the correct licenses or certifications to be considered for MDC Clean Water projects. Further, he states that it seemed to be a bit of a fog there that he and his clients couldn't work through.

He further reports that he believes that the bid packages are too large and discourages other people from bidding the job. "The bigger the job the more exclusions there are. The larger bid packages should be unbundled." Further, he reports that out-of-state firms have received several contracts. "There are a million people in Hartford or Greater Hartford who can lay pipe in the ground." As far as the owner knows, Hartford companies aren't hearing anything about those contracts.

Further, the participant believes that the state has too many requirements for licensing and MDC is hiding behind the licensing requirements in awarding M/WBEs work. The participant reports that MDC is creating the process as they go along and has contractors going around in circles regarding their process.

Finally, the participant does not understand why MDC has awarded contracts to out-of-state contractors to the exclusion of local- or state-based firms. The participant believes, "it is a shame that local- or state-based firms are not getting work with MDC."

This owner also reports the MDC has put several jobs out for bid with the intention of excluding local and M/WBEs from the process because of their stringent requirements.

FG #3 P#1:

A Hispanic American owner of a construction company reports that MDC should designate contracts that only M/WBEs will be allowed to bid such as is the practice of the City of Hartford.

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FG #3 P#2:

A Hispanic American owner of a construction company reports that he finds out about bid opportunities by searching Web sites and perusing contractor periodicals, such as the Dodge Report.

He also reports that MDC treats him fairly and he has no problems regarding the work or with any of MDC's contractors. Further, he does not believe that the same contractors are given favoritism over others.

FG #3 P#3:

An African American owner of a construction company believes that MDC is not serious about involving M/WBEs in their contracting process. He reports that he never receives solicitations from MDC and is unclear on how to access opportunities. If "things don't change," he states, he will have follow-up conversations with his state legislators.

FG #3 P#4:

An African-American owner of a construction company reports that MDC routinely gives work to the same contractors. Her belief is based upon contractors sometimes calling her for a quote after their bid has been submitted.

She reports that her firm does not give information to contractors who cold call because the company isn't being given access to the bid document. The owner indicates contractors pull her name off various M/WBE directories. Currently, she doesn't allow her company name to be used unless she is given access to the bid documents and she is able to provide rates directly to the contractor. The owner still fears, however, that her bid is being "shopped."

FG #4 P#2:

A Hispanic American owner of two construction companies has been in business for seven years. The owner states that he has not heard of any contract that MDC is awarding, however, he believes that the firms in the "big boy" network are always the companies that get awarded MDC contracts.

The owner's companies are on MDC's approved vendor list. In 2008, the owner bid as a subcontractor on an MDC job but came in 3rd or 4th lowest bid

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and was not selected. This owner is also approved as a project manager by MDC but has never been awarded a contract. The owner states that he is beginning to realize that trying to get work from the MDC always leads to a “dead end”.

FG #4 P#6:

The Hispanic American owner of a construction company believes that none of the Hispanic population has ever been given the opportunity to win a construction contract with the MDC. His company has bid many times over the years with the MDC and was low bidder during 2005/2006, however, the job never materialized. Several times, his firm was 2nd or 3rd low bidder and the job went to the same small group of “old boys” as always. He feels there should be some consideration by MDC to award bids, or a certain percentage of work, to local companies.

Losing out to large out-of-state companies is painful, in particular when each bid may cost thousands of dollars to put together for submittal. The owner feels that if one were to do an audit it would prove that three large companies are awarded contracts with MDC 75 percent of the time they bid. He has met with diversity staff and others at MDC to assist him to obtain contracts (as a prime contractor on \$3.7 million and \$4 million projects) but nothing has come through. He feels getting work with MDC is “not about bonding, it’s not about capabilities, it’s not about equipment, it’s about being who you are”.

FG #4 P#7:

The Hispanic American owner of a construction company has performed on one contract for the MDC, its home owner’s contract. The duties performed were to analyze the houses and assess whether plumbing work was necessary. No further work has been received from the MDC however the owner feels that this is attributable to him not putting in the time to understand MDC’s bid process. He also mentioned that MDC has offered classes which he never followed through with. The owner stated that it is important to do one’s homework on contracts with big companies, including the MDC and to know what the job entails. Although he has worked with diversity staff at MDC, who he stated is extremely helpful, he feels his

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resources are limited and would like to see the MDC give more information on upcoming contracts so that contractors can better prepare to bid. The owner believes that the MDC awards contracts fairly although true M/WBEs don't get awarded contracts because the larger companies set up minority fronts that win the bids. He believes MDC should have its own list of approved true M/WBEs that they could use to refer to general contractors that bid on MDC work. He feels it would be a great help. He believes that the MDC should mandate and ensure that minorities are being used on awarded contracts.

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Theme 2: **Access to financing, capital, start-up-costs, insurance, bonding and other requirements:** *This section of commentary refers to difficulties M/WBEs traditionally have in obtaining financing to operate a business, raise capital, fund insurance, bonding and perform contract work.*

Interview 1: A Hispanic American-owned non-professional firm began as a partnership that broke up. The remaining owner did not require financing because accounts receivable collections were sufficient enough to provide adequate cash flow for the business. No bonding is required on contracts that the company has been awarded.

Interview 2: A Hispanic American owner of a construction company blames the lack of adequate cash flow and an inability to obtain credit for his firm's condition. Collections typically take 60-120 days. Because of the length of time to collect receivables, the firm has used factoring and credit card debt to pay some of the firm's obligations. The company does not have sufficient financial resources to obtain a performance bond to enable it to function as a prime contractor; therefore it typically works as a subcontractor under the performance bond held by the prime contractor.

Interview 3: An African American construction company owner started the business with out-of-pocket funds. Cash flow continues to be a problem. The owner has been unable to get financing for the business due to high personal debt, credit cards and personal loans, obtained primarily to fund the business. Additionally, the company has a \$100K bonding limit.

Interview 4: A Hispanic American-owned construction company had a line of credit with its bank, which it paid off. The line of credit is no longer available because of the current economic crisis. The owner feels that he could obtain bank financing if needed. The company has trade credit with some 25 suppliers and has bonded a \$350,000 contract. The company, however, typically is not required to provide a bond.

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Interview 5: A Hispanic American-owned goods & supplies company has an SBA guaranteed 7A and 504 loan through a majority bank and enjoys a good relationship with it. Debt is secured by a blanket lien on all corporate assets and carries the personal guarantee of the principal. The company currently has a line of credit. The firm has not been required to provide bonding on projects.

Interview 6: A WBE construction company has a good relationship with its bank and has an SBA 7A loan. Loan documents require the firm to maintain certain financial ratios and the loan is secured by a blanket UCC filing on all corporate assets. The debt is personally guaranteed by the principal.

The owner attempted to obtain bonding to bid on a job several years ago and was turned down. She feels that she was treated unfairly because of her gender and being in a non-traditional field for women.

Interview 7: The only debt an African American-owned construction company has is a vehicle loan from his credit union on his firm's sole vehicle. No bonding has been required on projects he has been awarded as a subcontractor.

Interview 8: A goods & supplies manufacturing company, owned by a Native American, began with the owner using his personal funds. The firm is two years old and has not needed to borrow, however, the owner doubts that he would be able to get financing for his business due to his credit score which has been compromised by his personal support of the business and the length of time he has been in business.

Interview 9: A Hispanic American-owned construction company was started by the principal using his and family members personal funds. The firm now has a \$100K bank line of credit and enjoys a good relationship with its bank.

Interview 10: An African American-owned construction company was unable to get financing when the firm started 16 years ago and relied on its principal to personally fund the operation. The company has applied for and been

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rejected for a line of credit. This lack of sufficient working capital has stunted the company's growth.

Interview 11: A goods & supplies company is owned by a WBE. The owner's deceased husband bought the business utilizing some personal funds coupled with a bank loan. That loan was secured by a lien on business assets. Currently there is no bank debt; however, the company has other outstanding debt.

Interview 12: A White male-owned goods & supplies company obtained bank financing and utilized personal funds to start the business. Currently, the firm's five-year banking relationship with its bank includes checking and savings accounts and certificates of deposit. There is no company debt outstanding. The firm's bonding limit is \$1 million.

Interview 13: A White male-owned architecture & engineering firm was formed with the help of bank financing plus some equity investment from the original principals. The company has had a long-standing relationship with its bank, over 10 years, and has had and currently has lines of credit available to it secured by corporate assets. Bonding limits vary according to project, but has always been sufficient for the business.

Interview 14: A White-male owner of non-professional services company started the business, while in college without a significant amount of business experience and saved money by hiring friends who were also in college. These initial efforts enabled him to finance his business operations.

Additionally, the owner has reinvested profits made from contracts into the business. He shortly established a line of credit with suppliers that enabled them to purchase supplies on credit. He has never had to acquire a payment or performance bond; however, all of his employees are required to carry fidelity bonds.

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Interview 15:

An African American owner of a construction company started the business with savings and personal funds. In an effort to increase cash flow, he made a conscious effort to work with firms that would pay every two weeks.

The owner states that the banking institution the company has a relationship with has been very helpful in meeting their banking needs, however, to obtain a line of credit with the bank; he had to “put everything up.” Interviewee does not believe the firm gets the same interest rate as majority firms because they “put up” everything to get their line-of-credit.

He also believes it is difficult for minority-owned firms to obtain credit or a line-of-credit from banks. They have never had to acquire a bond. The prime contractor has always carried the company under their bond.

He reports that lack of access to capital impedes the growth of MBEs and impacts their ability to bid on contracts.

Interview 16:

The owner of a White male-owned construction company states that they have had a very successful relationship with their financial institution. In fact, the firm has built branches for the institution and has never had a problem obtaining a loan or securing a line of credit.

His business was started by his father while working for another firm. He indicated that his father would estimate jobs at the kitchen table. The business started out with small jobs and money was put back into the business from each small job to bid on other jobs.

The owner reports that to grow you have to have the financial strength for banks and bonding companies to support the vision of where you want to go.

He has a bonding limit in excess of \$30 million, but he has had a bonding application rejected for a \$100 million job. He reports that “if you don’t ask you won’t know.” He also reports that his firm has never required an M/WBE or small subcontractor to obtain bonding while working on one of his jobs.

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- FG #1 P#1:** An African American owner of a professional services company started his business with personal funds, savings and loans from family members.
- FG #1 P#2:** A White male owner of a professional service company reports that a bonding program for S/M/WBEs is being sponsored by Traveler's Insurance Company. Further he reports that his firm has obtained bonding for several of his clients through the program.
- Additionally, he reports that he began his career with another firm several years ago. After thirteen years with that firm, he started his own business in a similar line of work. Further, he reports that he used savings and personal funds to begin his business. He currently has thirty-five employees.
- FG #1 P#3:** A WBE professional services firm reports that her M/WBE clients have a difficult time obtaining bonds and insurance, therefore they are not able to bid on MDC projects.
- FG #3 P#1:** A Hispanic American owner of construction companies reports that he started his business with savings. He did not consider going to a bank and applying for a loan because the business was new and he recognized applying would be a waste of time.
- FG #3 P#4 & #5:** Two African American owners of a construction companies reported (at the same time) that they have no knowledge of a bonding program sponsored by Traveler's Insurance. All of the contractors in this focus group session agreed.
- FG #4 P#3:** A Hispanic American owner of a construction company has not had a need for bonding in the firm's three years of existence. The owner stated that she takes on jobs "within her means" and the company self funds all of their jobs.

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Theme 3: **Access to public sector and private sector opportunities:** *These comments address the access that M/WBE owners believe they have to contract work in the public sector and/or the private sector.*

Interview 1: A Hispanic American-owned non-professional firm would welcome the opportunity to do business in the public sector, but feels he is shut out of that segment of the market.

Interview 2: A Hispanic American-owned construction company only works in the public sector because as a union shop he does not find his price competitive with private sector opportunities. The firm has performed as a prime and subcontractor in the public sector.

Interview 3: An African American owner of a construction company does 90 percent of his jobs in the private sector and 10 percent with the State of CT. The owner feels that the work split has occurred by happenstance and would like to obtain some public sector jobs but has not been successful in doing so.

Interview 4: A construction company, African American-owned, does 75 percent of his business in the private sector and 25 percent in the public sector. This market split has been pursued because the owner seeks to avoid the more involved public jobs based on size and the amount of paperwork required.

Interview 5: A Hispanic American-owned goods & supplies company does 60 percent of its business in the public sector and 40 percent in the private sector. Management's goal is to have a good balance of public/private sector work at all times. There is some fluctuation in the work mix and contract work flow. Public sector work is mostly federal, while private sector jobs come mostly from referrals.

Interview 6: A White female construction company owner does 75 percent of her work in the public sector with the balance coming from the private sector. In her field, most jobs are in the public sector. The work obtained in the private sector is the result of a conscience effort by management to diversify.

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Interview 7: An African American-owned construction company has never been asked to participate in public sector race-neutral projects but is frequently approached to work on private jobs of this type. The principal of the firm hands out cards on job-sites as a way to drum up business from primes. He does not bid because he feels that his price cannot be competitive.

The owner does 75 percent of its business in the private sector and 25 percent in the public sector. He stated "It just happened that way". For now, he is content with the mix.

Interview 8: The Native American owner of a goods & supplies company states that his firm does 100 percent of its business in the private sector. The firm's small size and lack of access to capital prevents the company from going after public sector work.

Interview 9: A Hispanic American-owned construction company derives 90 percent of its business in the private sector. The owner feels shut out of the public sector by the larger firms in his industry that owned the concrete they place versus having to buy it on the open market. He feels there are more jobs in the private sector at higher profit margins. He has attempted to do business with the MDC with no success.

The owner feels his higher labor costs as a union shop and the firm's relatively small size holds back growth.

Interview 10: An African American-owned construction company does 90 percent of its business in the private sector because "payments are quicker".

Interview 11: A WBE goods & supplies company does 55 percent of its business in the public sector and 45 percent in the private sector. Jobs come primarily from reps and the owners states "that's the way it comes in."

Interview 12: A White male-owned goods & supplies company does 10 percent of its work under public contract and 5 percent from private contract. The majority (85

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percent) of its work is not under contract but come in by referral for specific mechanical repairs or service. This source can be private or public sector clients.

This firm has done business with the MDC. They completed one job two years ago. The owner feels that the MDC is open to doing business with M/WBEs. The company has not received solicitation calls from the MDC; however, the business obtained from the MDC was not through the bid process but from a referral from another client.

Interview 13: A White male-owned architecture & engineering firm obtains 75 percent of its contracts in the private sector and 25 percent in the public sector. This job mix is desired by management because they feel that the public sector is price driven and misses the high quality and expertise his firm brings to its projects.

Interview 16: The White male owner of a construction company reports that when the company started, 90 percent of the work was in the public sector. Currently, 60 -70 percent is private sector work versus 30 -40 percent public sector work.

FG #4 P#2 A Hispanic American owner of a construction company states that a huge percentage of his companies' contracts come from the city of Hartford. He does have some private sector business.

FG #4 P#3 A Hispanic American owner states that her construction company does work in both the public and private sector. The firm has performed as a subcontractor for City of Hartford jobs.

FG #4 P#7 The Hispanic American owner of a construction company estimates 1 percent of the company's work comes from the private sector and 99 percent comes from a combination of federal and state government jobs.

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Theme 4: **Cooperation of White male-owned firms with M/WBEs:** *This group of anecdotal comments refers to the amount of goodwill shown M/WBEs by White male-owned businesses and the level of cooperation between M/WBEs and White male-owned firms.*

Interview 1: A Hispanic American-owned non-professional services firm has performed numerous contracts with prime contractors and thinks the firm has been included because of its minority business status. It has never entertained any formal joint venture relationship with a prime contractor. He feels the company has been treated fairly by the prime contractors with whom they've dealt and have not experienced any problems working with them.

Interview 2: A Hispanic American owner of a construction company typically operates as a subcontractor to a larger White male-owned prime contractor on most of his jobs. Further, the owner reports that he works with certain primes on a regular basis and have developed a good working relationship with these firms. The principal, however, does not think the firm would get additional work if change orders were negotiated with the prime contractor.

Interview 3: An African American-owned construction company has been regularly solicited to perform work for White male-owned prime contractors on city contracts because of their good reputation. The firm has gotten \$100K+/- in private contracts from White male-owned contractors, and three additional government contracts. Additionally, the company has been involved in jobs as a subcontractor that did not require minority participation. The principal feels that his firm's difficulties are no more than any other company of his size.

Interview 4: A Hispanic American-owned general construction firm rarely participates in contract opportunities from White male-owned contractors. They have regularly been solicited to perform work from White-owned male contractors in the private sector, but have rarely been approached to participate in Federal, MDC or City contract opportunities. The firm does not actively search

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for work from prime contractors but has performed as a sub on jobs that did not require M/WBE participation.

Interview 5:

A Hispanic American-owned goods & supplies firm rarely participates in contract opportunities from White male-owned contractors. Their jobs come primarily from referrals but they are occasionally contacted by White male-owned firms regarding opportunities. The firm has subcontracted with White male-owned firms on jobs not requiring M/WBE participation.

Interview 15:

An African American owner of a construction company reported that he stopped bidding on MDC work because he submitted a bid with a contractor who was awarded an MDC contract, but was not awarded a subcontract and was never given a reason why. He suspects that the contractor "shopped his bid."

FG #3 P#4:

An African American owner of a construction company states that MDC does not provide oversight in insuring that M/WBEs are participating on the project. The owner notes several instances when the firm was listed as a subcontractor, but was not awarded a subcontract.

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Theme 5: **Exclusionary practices that create barriers to contracts:** *This section relates experiences of contractors in encountering exclusionary or prohibitive procurement practices and program requirements that could be attributable to discrimination.*

Interview 15: The African American owner of a construction company reports that unions cause problems for M/WBEs. Interviewee reported an instance where an M/WBE contractor owed the union money and was blocked in an attempt to obtain a contract because of the obligation to the union.

The contractor went on to say that a White male-owned firm owed the union money, but was allowed to continue their efforts to obtain and be awarded contracts.

FG #1 P#1: An African American owner of a professional services company reports that the only recourse for M/WBEs to participate in MDC projects is the creation of partnerships through joint ventures and mentoring programs. As the system currently exists, M/WBEs are not full participants because of the requirements of the different agencies that may be involved with the project, e.g. DAS, CT DOT, etc. He further states that he finds it impossible to keep up with the requirements because they change every month.

This owner also reports that MDC staff is hard-pressed to share what the process is with M/WBEs, because MDC does not know the process. "They are trying to figure out what the process is and consequently M/WBEs are sent on wild goose chases, while MDC staff attempts to figure out what to do."

FG #2 P#2: A White male owner of a professional service firm reports that the numerous requirements for contractors within Connecticut preclude the involvement of M/WBEs in contracting opportunities within the state, and more specifically with MDC.

FG #3 P#5: An African American owner of a construction company indicates that MDC is not serious about the M/WBE program. He reported that MDC is very good at

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stall tactics and uses all manner of excuses to cover-up the fact that M/WBEs are being systematically excluded from participating on contracts.

FG #3 P#3:

An African American owner of a construction company reports that he is routinely called for a bid after submission of bids. He refuses to participate because he suspects this is just "a game" on the part of White male contractors.

FG #3 P#4:

An African American owner of a construction company reports that contractors routinely list her company as a subcontractor without her providing a quote to them. Further, it is reported that they are never contacted or they attempt to negotiate a price after bid submittal. The company currently does not provide quotes unless they have the bid document and is fairly certain their bid will not be shopped.

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Theme 6: **Impact of the bid process:** *Comments in this section reflect the importance of the bid process in influencing M/WBE participation.*

Interview 16: The White male owner of a construction company reports that explanations of MDC's M/WBE requirements are explained by Project Managers during the pre-bid conference. He reports that the challenge is when no M/WBEs are available for specific types of work and a company has to improvise to fulfill the goal.

FG #1 P#1: An African American owner of a professional services company reports that he attempts to go into any situation with an open mind, but based on his own experience doesn't have an overall positive impression of the construction industry, and their willingness to be inclusive. Further, he states the MDC is a very difficult organization. "I have met several staff members with MDC and I am still trying to figure out how the organization is run and how decisions are made."

He states that small purchase procedures that will allow for significant M/WBE contract opportunities are not being utilized by MDC. He believes that systems and procedures are in place to keep small and minority businesses out, and he doesn't believe that will change because that is the culture of MDC.

He further reports that other than CT DOT, there hasn't been a push in Connecticut for utility contractors because the work has been limited in the last 10-20 years to tie-connections for building projects. Utility work has not been available and there is not a mechanism that he has seen to bring all contractors up to speed on the type of work that will be needed and the skill sets of the employees that is needed.

FG #1 P#2: A White owner of a professional service company reports that M/WBEs that are his clients are not being given a fair opportunity to bid. Further, he believes that the current MDC bid process may, in fact, discourage M/WBEs

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from bidding because of their poor reputation in the community for being open and transparent.

Further, the owner reports that if MDC was sincere, 100 percent of the labor would be Hartford-based, similar to how the City of Hartford guarantees that Hartford residents are employed by contractors doing business with the City of Hartford.

He also indicates that MDC packages their projects too large for M/WBEs to bid on. The participant reports that contractors that work for MDC routinely reduce the M/WBE contract amounts once the work begins.

FG #3 P#1:

A Hispanic American owner of a construction company reports that, unlike the City of Hartford, M/WBE participation is not given due consideration when MDC awards contracts.

Additionally, the focus group participant said MDC should require contractors to list M/WBEs and their prices when bids are submitted.

Focus group participant reports that MDC does not ensure M/WBEs are being paid the amount of their contract listed by the contractor in their submittal to MDC. "Typically, even if I have a \$30,000 contract, I will only be paid \$10,000 of that contract."

The owner also reports that MDC has excluded contractors from Hartford and the surrounding area intentionally. He wonders why the city and school system are successful in involving M/WBEs and MDC is not.

FG #2 P#1 and #2:

A Hispanic American representative of a civic organization and an African American representative of a civic organization indicate that they bid on the same opportunity and were invited to separate meetings where a MDC representative changed the scope of work. Both parties believe that the representative was not familiar with the project and had not read their proposals. Additionally, each party reports that the MDC representative's

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suggested changes were unrealistic, unworkable, and defeated the purpose of the proposal.

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Theme 7: **Need for and effectiveness of M/WBE programs:** *This section addresses the perceptions of local businesspersons about The Metropolitan District Commission's M/WBE Programs; the effectiveness of outreach, in encouraging and assisting M/WBEs to participate in contracts; and, concerns that the M/WBE certification process may be cumbersome, intrusive, and non-productive.*

Interview 1: The principal of a Hispanic American-owned non-professional services firm has taken courses from the Spanish American Merchants Association (SAMA) including computer training, QuickBooks and sales and marketing seminars. This outreach was not sponsored by the MDC.

He feels there is a benefit to being a certified M/WBE, but can not identify specific times when the certification has provided business.

Interview 2: A Hispanic American owner of a construction company used the services of SCORE and the Small Business Initiative (an arm of the City of New Haven's Economic Development Office). He was taught how to complete job proposals, provide quotations, and compute certified payrolls and to understand the requirements of insurance and bonding.

This owner is certified with the State of Connecticut Department of Administrative Services as an MBE. He feels there is significant benefit to being a certified MBE and uses its certification wherever possible to obtain job opportunities. The company has made significant efforts to do business with the MDC but not through the M/WBE officer of MDC. The principal feels very dependent upon M/WBE programs to survive in business.

Interview 3: An African American-owned construction company does not rely upon M/WBE programs for business but is certified as a MBE with the State of Connecticut and the Cities of Hartford and Bloomfield. The firm also has licenses with the states of CT, NY, NJ and Washington DC. The principal does not feel that his firm has benefited yet from the aforementioned certifications which required a lot of paper work.

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Interview 4: A general construction company is certified as a MBE by the State of Connecticut and the City of Hartford. The firm has benefited by these certifications by being contacted to satisfy minority requirements on various projects but is not dependent upon M/WBE programs for its livelihood.

Interview 5: A Hispanic American owner of goods & supplies firm has attended the Tuck School of Business at Dartmouth, various seminars, utilized technical assistance provided by SCORE. The company has obtained financing through the SBA and the local Chamber of Commerce helped the firm to find its current location and continues to notify the firm of various technical assistance programs.

The principal feels the firm has benefited from its certifications by gaining opportunities to bid on various projects. The business is not dependent on M/WBE programs but feel "they help companies get a foot in the door."

Interview 6: A WBE construction company attends 3-4 seminars per year dealing with improving management skills.

The company is certified by the State of CT. They have benefited from their certification on at least two specific contracts they were awarded that had WBE goals. They feel that there would be a negative impact on business if M/WBE goals were not imposed.

Interview 7: An African American-owned construction company says that the firm has received mail regarding opportunities at the MDC and has attended MDC-sponsored seminars.

The firm is certified by the CT DOT as a Disadvantaged Business Enterprise (DBE), the CT DAS and the city of Hartford as an MBE. The owner states that they have received a contract by benefit of being a DBE, but does not depend on such certification for survival. He does feel that "If it is regulated there is a better chance".

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Interview 8: The Native American owner of a goods & supplies firm manufacturer has taken various computer training courses offered by colleges in the Hartford area.

Interview 9: A Hispanic American-owned, construction company is certified as an MBE with the State of CT and the City of Hartford. They have gotten jobs as a result of the certification but are not dependent on M/WBE programs.

Interview 10: An African American-owned construction company is certified with the City of Hartford and has been awarded city jobs with the help of the certification. The firm is not dependent upon M/WBE programs for its survival.

Interview 11: A WBE goods & supplies firm has taken seminars and classes sponsored by various State agencies (she could not recall the specific agencies) focused on improving management and marketing skills.

Interview 12: The owner of a White male-owned, goods & supplies firm takes advantage of various mechanic training programs offered by major manufacturers. He also makes this training available to his employees in addition to OJT the owner provides. In addition, the owner has attended management seminars geared toward improving management and marketing skills.

Interview 13: The principal of a White male-owned architecture & engineering firm stated that professional practices training is available and encouraged for all company professionals (paid by the company). Additionally, management and marketing seminars are regularly attended.

Interview 15: An African American owner of a construction company believes that WBEs get more work as subcontractors with MDC than MBEs. Further, he reports that MDC does not check and verify, so therefore has no idea who is really participating on contracts.

Interviewee reports that the company does not rely on the MDC M/WBE program to grow his business. Interviewee states that most of his business is

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in the private sector and relies on two contractors who award his firm a substantial amount of work.

FG #1 P#1:

An African American owner of a professional services company states that MDC has not provided any outreach for professional services. All of the outreach has been for construction companies.

He further reports that he has participated in MDC-sponsored outreach sessions although they were focused on construction only and not on his line of business.

FG #1 P#2:

The White male owner of a professional services company believes that the current M/WBE goal for Clean Water projects is pitiful. Further, he reports that at least 60 percent of the work is labor intensive and sees no reason why local businesses and residents shouldn't benefit from the Clean Water program before outsiders. "At the very least, 100 percent of the labor should be local residents."

FG #1 P#3:

A WBE professional service company reports that M/WBE contractors are available in the community and sees no reason why a higher goal shouldn't be applied to Clean Water projects.

FG #3 P#4:

An African American owner of a construction company reports that you cannot leave it to the General Contractor to self-report M/WBE participation. Further, the MDC must improve their monitoring of contracts to ensure real M/WBE participation, because there currently is no system in place to ensure that M/WBEs are truly participating and being paid in a timely manner.

FG #3 P#5:

An African American owner of a construction company reports that he recently attended an outreach session sponsored by the MDC. Present at the session was the contractor who was from out-of-state, that was recently awarded a MDC contract. "We all thought that this may be an opportunity for subcontracts. But the contractor informed us that all subcontracts had been

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awarded. Subsequently, we found out that all the subcontractors were from out-of-state.”

FG #4 P#3

A Hispanic American owner of construction company in business for 3 years with five employees has never worked on an MDC project as a prime or sub contractor. The owner was notified about meetings conducted by the MDC and the Minority Construction Council. She attended MDC meetings regarding specific new projects that were “coming out” but never heard anything more from MDC about the projects.

FG #4 P#6:

The Hispanic American owner of a construction company does not believe that the MBE certification determines whether one gets awarded a contract but believes that 50 percent of the city of Hartford’s contracts are obtained through some sort of affiliation. He believes most contractors are not respected for the work they have done or their qualifications.

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Theme 8: **Failure to pay in a timely manner:** *This section relates comments regarding any difficulties businesses have encountered in obtaining timely payments for work performed.*

Interview 4: A Hispanic American principal of a general construction company reports that the firm was treated unfairly about 10 years ago on a HUD job in Hartford where they had difficulty getting paid. They also had a problem getting paid for work performed on a local college sports arena.

Interview 15: An African American owner of a construction company states that he started a public sector job in June, as a subcontractor, and was paid only half of what was invoiced to the client.

He believes his firm would be larger if he had clients who paid on time and didn't hold their money. Due to lack of payment, he has scaled back and will only work with those contractors his firm has experience with and a history of being paid on time.

FG #3 P#4: The African American owner of a construction company reports that she is privy to a MDC contract where the African American contractor was listed to receive a contract worth a specific amount. Subsequently, the contract was cancelled and the contractor was paid a less amount, which allowed the White male prime to complete the work with his own forces and receive the additional payment.

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Theme 9: **Racial and gender stereotyping.** *This section addresses concerns of contractors who believe their expertise and competency is not being fully considered because of race/ethnicity/gender.*

Interview 2: A Hispanic American owner of a construction company feels it is being blocked from new business opportunities by well established, entrenched family businesses and has been told by one such competitor that "We will do anything to protect our turf; we don't want you quoting work for this municipality".

Interview 3: An African American-owned construction company was the low bidder on work to be done at Eastern CT State University when the bid was pulled then awarded six weeks later to the next lowest bidder, a White male-owned firm.

Interview 4: A Hispanic American owner of a general construction firm feels that minority-owned firms are discriminated against although he is not sure that he has experienced that discrimination. He has not had any experience with the MDC and has not taken advantage of any M/WBE programs. He has reviewed bid specs for MDC projects but has not bid because he didn't feel there was a match.

Interview 5: A Hispanic American owner of a goods & supplies firm feels that there is a lack of understanding in the general market place how sophisticated many M/WBEs are and what their capabilities are. He feels the perception is that M/WBEs are less capable. Their client base is almost evenly split between the public and private sector. The firm has no previous experience with MDC.

FG #1 P#1: An African American owner of a professional service company states that he does not have a favorable impression of the construction industry as a whole and MDC in particular. He further reports that he and his M/WBE clients are treated differently than White male-owned firms on projects and believes that their competence and abilities are less valued than their White counterparts.

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FG #3 P#4:

An African American owner of a construction company reports that contractors believe that they have to give the company the rates they will charge the client because they believe I don't know my business. The owner reports that the majority of the time contractors approach the company with rates they have included in their bid. "I have been in this business 22 years and I'm fully capable of determining what rates I will charge based on the work." Further, the owner reports, "there is no way another company can provide rates for my line of work."

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Theme 10: **Suggestions and Comments:** *This final section captures ideas presented by interviewees on how to improve and/or modify the M/WBE and procurement processes. This section also addresses other issues that were not covered in the previous themes.*

Interview 16: A White male owner of a construction firm reports that experience, competition, pricing, prior experience and reputation are the most important factors when selecting a subcontractor.

FG #1 P#1: An African American owner of a professional services company states that creating partnerships are the only way that small and minority firms will participate in MDC projects.

FG #2 P#1: An African American representative of a community organization reports that MDC has the habit of coming to the community at the last minute and expects the community to rubber stamp any decision that they have made.

Further she reports, that in her experiences with MDC, the organization is more than willing to buy-off individuals with the goal of maintaining the status quo. Further, she reports that MDC would rather not hear or respond to community concerns and issues.

FG #2 P#2: A Hispanic American representative of a community organization reports that MDC isn't sensitive to the needs and concerns of the community. He indicates that as a representative for his organization, he or his colleagues are seldom notified about street closings or construction in the area.

FG #2 P#2: An African American representative of a local civic organization reports that keeping the community well informed on future construction activity is not a priority of MDC. She further reports that this attitude is par for the course for MDC, since it is expected for the community to take any slights and half-hearted efforts on behalf of MDC.

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FG #2 P#3:

An African American representative of a community organization reports that MDC consistently states that there are not minority contractors who have the skill set. Further, the representative indicates that the MDC has been informed that there are organizations willing to work with MDC to establish programs to increase minority firm's expertise and the expertise of potential minority employees.

8.6 Observations Drawn From the Interviews

After analyzing the anecdotal evidence collected from 33 in-depth interviews of business owners and civic organization representatives in the greater Hartford area, the following observations illustrate the possible barriers to minority and women business owners as they attempt to transact business with The Metropolitan District Commission.

- MDC repeatedly utilizes the same vendors; MDC shows favoritism toward select contractors;
- MDC does not do business with local businesses;
- Lack of openness in the MDC procurement process;
- Lack of support by MDC to new businesses, particularly small-, minority- and women-owned businesses;
- Prime contractors utilize unfair business practices against M/WBEs, including bid shopping, slow or non payment, non utilization of identified M/WBEs;
- Lack of sufficient MDC monitoring and tracking systems to ensure that M/WBEs are treated fairly by procurement personnel and prime contractors; and,
- Access to capital continues to be a constraint to M/WBEs.

Chapter 9: Race-Neutral Analysis

9.1 Introductions

CONSIDERATION OF RACE-NEUTRAL ALTERNATIVES

This chapter investigates the effectiveness of race/gender-neutral programs in the Hartford Area. The U.S. Supreme Court in *Croson* made it clear that the second prong of the “strict scrutiny” test demands that any remedial action be “narrowly tailored” to address past or present discrimination. A program should be instituted either after, or in conjunction with, race-neutral means of increasing minority business participation. While *Croson* does not define race-neutral programs or what constitutes a consideration of race-neutral programs, passages in *Croson* do shed some light on the Court’s thinking on these two issues.

The U.S. Supreme Court noted that the City of Richmond had at its disposal a wide array of race-neutral measures, which could “increase the accessibility of city contracting opportunities to small entrepreneurs of all races. Simplification of bidding procedures, relaxation of bonding requirements, and training and financial aid for disadvantaged entrepreneurs of all races would open the public contracting market to all those who have suffered the effects of past societal discrimination or neglect.”⁹⁶ Subsequent federal and circuit court case law has provided additional illumination on the question of what constitutes adequate consideration of race-neutral measures.

- A governmental entity does not have to enact race-neutral means if they are not feasible or conducive to remedying past discrimination.
- The existence of continued underutilization of M/WBEs in the face of existing race neutral remedies is an indication that they are not effective alone in eradicating discrimination.

This section will provide a descriptive overview of the use of various current federal, city and state race-neutral programs offered in the Hartford area. Most of the organizations described in this chapter offer various forms of management and technical assistance (M&TA) to small businesses and M/WBEs. Some offer funding. Where available, evidence will be provided of M/WBE participation in these race-neutral programs.

⁹⁶ *City of Richmond v. J.A. Croson*, 488 U.S. 69, 706, 109 S. Ct. at 734 (1989).

9.2 Small-, Minority- and Women-Owned Business Programs

1. City of Hartford, Economic Development Division *(Development Services Department)*

The Economic Development Division of the Hartford Development Services Department works to create an environment in Hartford conducive to growing and attracting businesses throughout the city and its neighborhoods. Services include:

- **Small Business Development:** The Small Business Development program provides technical assistance to neighborhood businesses and entrepreneurs interested in starting a new business. This technical assistance may take many forms including training programs such as blue print reading, assistance with writing business plans, assistance with bonding and bid preparation. Services include:
 - Business Plan Development Assistance
 - Financial Projections and Analysis
 - Financial Loan Packaging
 - Real Estate/Leasing Information
 - Licensing and Permitting
 - Referral to Partners/Training Opportunities
 - One-on-One Consultation
 - Business Visitations
 - Interact with Merchants Associations and Neighborhood Groups
 - Quality of Life Issues

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- **Corporate Development:** The Corporate Development effort assigns a project manager to work with industries, companies, commercial, service firms, and chain retailers on projects that retain and create new jobs and spur investment in the city.
- **Hartford Redevelopment Agency (HRA) and Neighborhood Development:** The (HRA) establishes and manages Redevelopment Plans. To meet the goals for each plan, the HRA may purchase targeted properties through negotiated acquisitions or through the use of eminent domain. Following acquisition, properties are sold and redeveloped in accordance with the plan. HRA currently manages over 18 Redevelopment Plans throughout the city.

Neighborhood Development efforts center on providing assistance to developers and neighborhood groups to ensure that blighted and underutilized properties are renovated and put back to productive reuse. In addition to providing technical assistance with business plans and attracting financing to projects, staff works to develop productive relationships between developers and community stakeholders.

Through the City of Hartford, Community Development Block Grant (CDBG), funding of the Minority Contractor program is operated by Hartford Economic Development Corporation (HEDCo). This program is coordinated through HEDCo's Business Resource Center which assists participants in proposal and bid preparation, business plan development, tax structure, cash flow and record keeping, computer skills development, accounting and payroll services, contract negotiations, licensing, financing and bonding, resume development, legal issues, and incubator office space.

2. City of Hartford, Office of Human Relations (*Human Relations Department*)

The Office of Human Relations works to promote equal opportunity, diversity and the elimination of discrimination through education, enforcement, community partnerships and customer service, throughout the city and its neighborhoods through the following programs and initiatives:

A. Minority/Female Tradesworker Participation Goal

The City of Hartford's contracts include a 15 percent minimum and 50 percent overall minority/female tradesworker participation goal, by trade, of the total project hours.

Contractors must submit on a monthly basis the Monthly Utilization Report (1391-A Form) for review to determine compliance.

B. Hartford Resident Worker Goal

The City of Hartford includes a minimum 30 percent Hartford residency goal of the total project hours in their contracts. Contractors must submit on a monthly basis the Monthly Utilization Report (1391-A Form) for review to determine achievement. Space is provided on this report for information related to Hartford residency.

3. Connecticut Office of Supplier Diversity (State of Connecticut Department of Administrative Services [DAS])

The State of Connecticut's Supplier Diversity Program was established to ensure Connecticut small businesses an opportunity to bid on a portion of the State's purchases. The program is run by the State of Connecticut Department of Administrative Services (DAS) and its main objective is to increase the number of small- and minority-owned enterprises the Office of Supplier Diversity certifies throughout Connecticut.

Supplier Diversity Set-Aside

The Supplier Diversity program simply registers firms with the Department of Administrative Services. Once certified, a M/WBE business owner can bid on contracts covered by the program, as well as all other state contracts.

Business Development Representatives are responsible for identifying and certifying small and minority businesses by conducting thorough and effective eligibility reviews while ensuring vendors receive prompt and responsive customer service.

- Eligibility criteria are set forth in Section 4a-60g of the Connecticut General Statutes. DAS, Office of Supplier Diversity maintains a list of certified small and minority business enterprises which is available online.
- In addition, Connecticut General Statutes, Section 4a-60g, require Connecticut State agencies and political subdivisions of the State to set aside each fiscal year, after approved exemptions by the DAS, 25 percent of their budgets for construction, housing rehabilitation,

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and purchasing supplies and services to be awarded to certified small businesses, with 25 percent of this amount to be awarded to certified minority business enterprises.

Connecticut companies who are certified by the Connecticut Department of Transportation and meet this program's certification requirements are automatically eligible for certification by DAS. Some additional information may be required depending on the company's business structure.

Using improved management procedures, the office has shortened the time needed to secure certification while reducing the amount and type of detailed business data required for applicants. The OSD office:

- Serves as primary liaison for small vendors seeking state procurement opportunities;
- Recruits and certifies small-, women-, minority- and disabled-owned businesses to participate in the Set-Aside Program;
- Measures the state's success as it relates to SBE/MBE spending;
- Matchmaking viable-growth oriented SBE/MBE businesses with purchasing/ contracting opportunities; and,
- Advocates for Small Business Enterprises working within the state procurement process.

Procurement Portal SBE/MBE/DBE Bids/RFP's

DAS provides an online State Contracting Portal for procurement at:

[http://www.das.state.ct.us/Purchase/Portal/portal Bids Open.asp?F Bid Type=5&F Unit=](http://www.das.state.ct.us/Purchase/Portal/portal%20Bids%20Open.asp?F_Bid_Type=5&F_Unit=)

Procurement Contracting Manual

The Office of Supplier Diversity offers a Procurement Contracting Manual. Understanding the growing demand for current procurement information, this manual is designed to give Connecticut State Agencies the latest information about procurement topics to assist them in performing their purchasing functions in a legal and ethical manner. The Department of Administrative Services (DAS) Procurement Division encourages State Agencies to contact them at any time with questions about procurement policies, procedures and programs.

Contractor Prequalification Program

The Contractor Prequalification Program was developed to provide agencies and municipalities in the State of Connecticut with a list of prequalified building contractors. Projects requiring prequalification consist of public construction projects that will be paid for in whole or in part with state funds and are estimated to cost five hundred thousand dollars or more.

- Connecticut General Statute §4a-100 requires that any contractor who wants to bid on a state funded contract or perform work pursuant to a contract for the construction, reconstruction, alteration, remodeling, repair or demolition of any public building or any other public work by the state or a municipality except a public highway or bridge project or any other construction project administered by the Department of Transportation which is estimated to cost more than \$500,000 be prequalified through the Department of Administrative Services.
- As of October 1, 2007, no company whose contract exceeds \$500,000 in value may perform work as a subcontractor on said projects, unless the company is prequalified with the Department of Administrative Services.

MANAGEMENT AND TECHNICAL ASSISTANCE

4. The Small Business Development Center (CSBDC)

Since 2006, the Connecticut Small Business Development Center (CSBDC) has been a part of Central Connecticut State University (CCSU) and is housed at the Institute Technology Business Development Center (ITBD) in downtown New Britain. The SBDC was hosted for 20 years, until 2006, by the SBA and the University of Connecticut.

The CSBDC partnership includes Central Connecticut State University, the CSU system which includes Western Connecticut State University (WCSU), Southern Connecticut State University (SCSU), Eastern Connecticut State University (ECSU) as well as CCSU, the United States Small Business Administration, the Department of Economic and Community Development, and the private sector. Mandated by Congress, the SBDC is the only organization that represents this broad-based partnership to small businesses.

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The mission is to assist in the creation and growth of small business in Connecticut. The CSBDC provides one-on-one counseling, as well as group training programs at regional locations around the state. The regional offices are staffed by professional business counselors who provide one-on-one counseling without charge to Connecticut's small business community.

The CSBDC also conducts small business training and educational workshops throughout the state. For example, the following entrepreneurial education workshop series were held at Western Connecticut State University offered in first quarter 2009. These workshops are designed to assist start-ups or more established businesses.

- Entrepreneur Self Assessment: Do You Have What It Takes?
- Starting Up: A Step-by-Step Guide on How to Start a Business in Connecticut
- Writing a Business Plan: Your Company's Roadmap
- Fundamentals of Running Your Small Business
- Online workshops include:
 - Starting Your Business
 - Developing a Business Plan
 - Conducting a Marketing Analysis
 - Analyze your Competition
 - Targeting Your Market
 - Maintaining an Agile Company
 - Creating a Competitive Advantage
 - Creating a Strategic Plan
 - Determining Your Business Legal Structure
 - Protecting Your Business with Patents, Copyrights, and Trademarks
 - Managing Your Finances
 - Preparing a Cash Budget

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- Preparing a Balance Sheet
- Managing Your Cash Flow
- Running a Profitable Company
- Creating a Profit and Loss Statement
- Analyzing Your Financial Ratios
- Protecting Your Business with Contracts
- Assessing Your Company's Financial Needs
- Partners and Investors
- Valuing a Business
- Foundations of Marketing
 - Pricing Products and Services
 - Building Your Brand
 - Promoting Your Business
 - Advertising Your Business
 - Building a Web Site
 - Personalization Strategies to Attract and Retain Customers
 - Identifying Your Sales Strategy

Small Business Development Centers provide special small business grants, technical assistance training, counseling and loan application assistance for conventional bank and alternative lender financing programs such as SBA loans, State agency backed loan programs, asset based loans, etc. This assistance may take the form of providing help in writing business plans, marketing plans, and financing plans to include cash flow projections and pro forma profit & loss statements. Small business grants typically reference funding to attend SBDC educational seminars and workshops.

5. The Connecticut Department of Transportation (ConnDOT)

ConnDOT has opened the Connecticut Business Opportunities and Workforce Development Center (CT BOWD Center) in 2008 to provide business development and supportive services to certified DBE firms and On-the-Job Training program participants. Central Connecticut State University's Institute of

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Technology and Business Development (CCSU-ITBD) has been contracted to host and administer the program. An assessment is done to determine a firm's overall health and condition. Based on the assessment, steps or actions are prescribed in the form of a development plan to promote business growth and development. Firms enrolled in the program will receive one-on-one support and development services. The firms will also have priority enrollment in CT BOWD Center sponsored workshops and events. Additionally they will have access to the resource library which has copies of ConnDOT's Plans and Specifications, and RFPs/RFQs.

Doing Business with ConnDOT covers a wide range of topics in an effort to provide information to those wishing to do business with the department. Included is information on contracts, contract development, consultant information, along with standards and specifications and publications.

- Contractor Resources
- Consultant Resources
- Standards and Specifications
- Engineering Resources

6. The Women's Business Development Center (CT WBDC)

The Women's Business Development Center (WBDC), located in Stamford, Connecticut, is a 501(c)(3) non-profit micro-enterprise development organization whose goal is to increase economic independence for women. This is accomplished through Small Business and Professional Development Training specifically, small business and micro-enterprise training, career assistance, networking and access to applicable resources.

WBDC offers a broad array of programs and services to both the small business owner and the entrepreneur interested in personal and professional development. WBDC interviews each entrepreneur to assess where they are in their small business venture or professional development. WBDC then places clients in specific workshops and/or one-on-one counseling sessions.

Although the cost of WBDC programs and services are well below the national average, many economically challenged clients cannot afford to pay for services. Women from low- and moderate-

income communities can especially benefit from training and technical assistance to make the mainstream business world more accessible. WBDC offers a scholarship program because it is committed to serving women who are socially and/or economically disadvantaged. For a majority of these clients, having the financial assistance to benefit from a WBDC service is the first and possibly only glimmer of hope for their financial future.

7. The Connecticut Licensing Info Center (CT-CLIC)

The Connecticut Licensing Info Center (CT-CLIC) helps businesses come into full compliance with Connecticut law quickly and easily. CT-CLIC offers both a free self-service approach via www.CT-CLIC.com and a free full-service approach through the Smart Start business registry program.

Smart Start for Business

Whether starting, purchasing, expanding or relocating a business in Connecticut, this program offers a way to navigate through the various state licensing and registration requirements, including: Banking, Insurance Professionals, Health, Occupational/Professional, and registration with the Secretary of State.

The system guides the user step-by-step through the process leading to the appropriate agencies, necessary forms and additional information sources. This process is effective for the majority of businesses, however if further assistance is needed, a business owner can contact Smart Start for customized, one-on-one support.

8. Connecticut Economic Resource Center, Inc. (CERC)

Connecticut Economic Resource Center, Inc. (CERC) is a non-profit corporation that provides its clients with objective research, marketing and economic development services consistent with the mission of making Connecticut a more competitive business environment.

CERC has comprehensive economic development resources to promote Connecticut as a prime business location. CERC works with state, regional, local and utility partners to promote Connecticut as a prime business location by assisting with managing and supporting programs for business attraction, formation and expansion including Connecticut's Business Response Center (CERC).

CERC offers a wealth of information on federal, state, regional and local business assistance programs through a database called CERC ProgramFinder®.

Connecticut's Business Response Center (BRC) makes it easy to handle everything a business owner needs to know about doing business in the state. Every year, they handle more than 20,000 inquiries and all services are free due to funding from CERC's funding partners.

FINANCIAL ASSISTANCE

9. The Small Business Administration (SBA)

The SBA provides specific assistance to small businesses through training, financing, and advocacy for small firms. It also offers several loan programs for businesses that are independently owned and operated and meet size requirements established by the SBA. The SBA is primarily a guarantor of loans made by private and other institutions. The 7(a) loan program is the primary business loan vehicle which may be used for working capital, machinery & equipment, furniture & fixtures, land & buildings and most other sound business purposes. The 504 program offers long-term fixed asset financing for the acquisition, construction, expansion, or renovation of land and building.

The Small Business Administration has authorized a number of banks throughout the state as preferred lenders to expedite loans. As a preferred lender, these banks are authorized to make the credit decision on SBA guaranteed loans which shortens the borrowers wait time for a decision.

The banks based in Connecticut, who currently have this designation, are:

- UPS Capital Business Credit 280 Trumble St., Hartford, Connecticut 06103
- New Alliance Bank, 195 Church St., New Haven, Connecticut 06510
- New Milbank, 301 Main St., Dan Berry Connecticut 06801
- People's Bank 850 Main St., Bridgeport Connecticut 06604
- Webster Bank for 36 Slater Rd, New Britain, Connecticut 06053

In addition, the SBA works with Small Business Development Centers to provide their services.

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10. Connecticut Community Investment Corporation (CTCIC)

Connecticut Community Investment Corporation (CTCIC), headquartered in Hamden, Connecticut, is a non-profit economic development lender. It provides Connecticut's small business owners with access to capital that may not be available elsewhere. In addition, it provides financing opportunities for expanding businesses looking to purchase real estate and/or machinery and equipment. CTCIC's mission is to enhance commerce, industry and local entrepreneurship.

CTCIC holds several designations from the U.S. Small Business Administration (SBA) based on its years of experience participating in SBA loan programs. The SBA 504 Loan Program and its sister programs help create jobs and promote community economic development by providing capital for business expansion. And because these programs are successful, CTCIC is able to support other programs and services that might not otherwise be available.

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SBA 504 Loan Program

Under the SBA 504 Loan Program, CTCIC is a statewide Priority Certified Development Corporation and participant in the Accredited Lender Program (ALP). As a result, CTCIC receives expedited services from SBA and is delegated certain additional authority from the agency.

- They provide SBA 504 loan packages that finance up to 90 percent of the total cost of purchasing owner-occupied commercial real estate, including new construction and renovations.
- The same 90 percent SBA 504 loan package is also available to purchase and install machinery and equipment. Its features make business expansion more attractive and attainable. And business expansion usually means job creation and retention, a key element of the national economic development agenda.
- Program advantages:
 - Conserve valuable operating capital
 - Limited collateral
 - Low fixed rate
 - Fully amortizing over an extended term

SBA 504 MicroLoan Program

Under the SBA Microloan Program, CTCIC is a statewide Intermediary Lender. The SBA MicroLoan Program focuses on start-up businesses as well as established businesses that typically have difficulty obtaining small loans from traditional sources.

The Microloan Program provides very small loans to start-up, newly established, or growing small business concerns. Under this program, loans are to eligible borrowers in amounts up to a maximum of \$35,000. The average loan size is about \$13,000. These loans can be combined with other financing sources up to \$105,000. The maximum term allowed for a microloan is six years; the interest rate is typically between eight and thirteen percent. Personal credit history is taken into consideration.

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- Eligible uses include:
 - Purchase of machinery and equipment (including tools, office equipment and furnishings)
 - Purchase of inventory
 - Leasehold improvements
 - Insurance premiums
 - Marketing programs (including design work and the cost of print and other forms of advertising)
 - Professional fees (including the cost to set up a business entity)
 - Permitting, licensing & zoning approval costs
- Benefits:
 - Can be startup or existing business
 - Technical assistance on all phases of business is available
 - Fixed rate interest
- Requirements:
 - Business must demonstrate ability to repay debt
 - The minimum collateral is lien on business assets
 - Personal guarantee from all owners of 20 percent or more of the business
 - Cannot be used to refinance debt

SBA 504 Look-Alike Loans

SBA 504 Look-Alike Loans are available to existing businesses in amounts from \$50,000 to \$1,000,000 to fund projects that will have a positive community impact. SBA 504 Look-Alike are typically combined with financing from traditional lenders in a manner similar to the SBA 504 Loan Program to create a total financing package. That said, SBA 504 Look-Alike Loans offer more flexibility in structuring and can be used as a stand-alone product under limited circumstances.

SBA 504 Look-Alike Loans can be used to finance the following:

- Purchase of land and building with or without renovation
- Renovation and/or expansion of your current business facility
- Purchase of real estate with construction of a new building
- Purchase and installation of machinery and equipment

The total financing package can be as high as 90 percent of the value of your real estate project (as supported by an appraisal) or 80 percent of the cost of new equipment. Used equipment can also be financed.

A. New Market Loans

CTCIC is working to help revitalize distressed areas (according to the U.S. Census) within Connecticut's urban and rural communities by providing New Markets Real Estate and Equipment Loans to qualifying borrowers (including non-profit businesses). New Markets Loans are offered with lower down payments, lower interest rates and costs and extended repayment terms up to 25 years as an incentive for businesses to locate or remain within these targeted areas.

New Markets Loans are available to existing businesses in amounts from \$50,000 to \$1,500,000. New Market Loans are typically combined with financing from traditional lenders in a manner similar to the SBA 504 Loan Program to create a total financing package. Stand-alone New Market Loans are also available.

The interest rate is below market and fixed for the first seven years of the term. The rate is reset on the seventh anniversary of the loan and remains fixed at the new rate for the balance of the term of the loan.

New Market Real Estate Loans may be eligible for a 25-year repayment schedule. New Markets Equipment Loans may be eligible for a seven-year repayment schedule.

B. Defense Diversification Fund

Defense Diversification Fund (\$100,000 maximum) funded by the Department of Commerce. Minimum DDARLF loan amount is \$25,000 typically up to \$100,000. CTCIC can either lend directly or leverage DDARLF loan with equity or financing from other private or public sources. Loan proceeds may be used to buy machinery and equipment, remodeling of new/existing business location and for working capital. Loan proceeds may not be used to refinance existing debt or to pay taxes.

Applications will be accepted from any business negatively impacted by defense-related adjustments and located within the territories listed below. Number and quality of jobs created or retained will be considered in evaluating loan applications. Other businesses located within the targeted communities that are expanding and creating significant employment within the territory may also qualify. Owners must be willing to personally guarantee the loan.

C. Technology Investment Fund (TIF)

The Technology Investment Corporation (specifically for New Haven companies) provides equity money in increments of \$100,000. TIF looks for a return commensurate with risk assumed and anticipates a maximum five year term on its loans. Loan proceeds may be used for research and development, marketing, purchase of machinery and equipment and/or retrofit of new/existing business location, working capital, and contract financing.

The number and quality of jobs to be created or retained will be considered in evaluating TIF applications and must clearly demonstrate business' ability to strengthen city's economic base and to create new jobs for city residents. There are on-going financial reporting requirements.

CTCIC staff review business plans, assist with operating issues and provide networking opportunities for borrowers and potential borrowers.

11. Connecticut Economic Development Fund (CEDF)

The Connecticut Economic Development Fund (CEDF) recently relocated its headquarters from West Hartford to Meriden, Connecticut. The CEDF was formed under Governor Weicker in the 1980s as a state/private (bank debenture) partnership to be the lender of last recourse to small businesses located in Connecticut's largest cities. Now, it has expanded its service area statewide. CEDF offers several loan and training opportunities.

Loan Products

CEDF provides loans to start-up and existing businesses who have difficulty obtaining traditional financing or need flexible terms.

A key ingredient in the CEDF loan program is that any small business owner who receives a loan also receives free one-on-one business counseling, including pre- and post-loan assistance. This assistance is part of CEDF's mission of not just growing businesses, but also developing the management skill and expertise of the business owner. They support the owner in sales, marketing, financial reporting, and cash management. This support is provided on a regular basis by a team of professionals who make sure all borrowers get the assistance they need. The counselors also provide suggestions and referrals to accountants, attorneys and other professionals when more in-depth assistance is needed.

D. Standard Loan Program

- for start-up businesses or existing businesses
- loans from \$5,000 to \$250,000

E. Grow Your Business Loans (GYB)

- for existing businesses established for 3 or more years
- for loans up to \$250,000

F. SBA Micro Loans

- for loans up to \$35,000

G. Micro Loan Guarantee Program for Women and Minority Owned Businesses

A special loan guarantee program offered in conjunction with the Department of Economic and Community Development (DECD), helps women- and minority-owned businesses obtain flexible financing. This is for start up as well as the growth of existing businesses.

- for loans \$5,000-\$50,000

H. Connecticut Inner City Business Loan Guarantee Program

As part of the Governor's initiative, CEDF, in conjunction with the Department of Economic and Community Development (DECD), this program offers guarantees for small business loans in designated industry clusters located in Waterbury, Hartford, New Britain, Bridgeport, and New Haven. This guarantee is for small businesses that would otherwise have difficulty obtaining traditional financing or need more flexible terms.

- for loans \$50,000 to \$250,000

I. Other Loan Related Services

- An Asset Acquisition Program to encourage the purchase of commercial and mixed-use real estate. The acquirer must have their business as an occupant of the building financed (no occupancy percentage required/maximum loan \$500,000). If the requested loan exceeds \$500,000, CEDF will and has participated with one or more of its 18 bank funders.
- \$150,000 maximum loan guaranty pool for Hartford area businesses, which grants a 30 percent guaranty for the first loss to lenders. This is a partnership with the City of Hartford that provides the funding for this program through its CBDG funding.

- A 30 percent guaranty for the first loss to lenders to women- and minority-owned businesses, as long as there is a 51 percent woman or minority ownership interest (maximum loan \$50,000).
- A Grow Your Business loan program for firms in business three or more years. This program is designed to help small business owners take advantage of time sensitive situations, such as entering new markets, acquiring new technology etc. The application process is streamlined and underwriting less stringent.
- Two segmented loan funds, which combine state and private funding. Eventually, this program will be expanded to five regions and will cover the state. At present, the two funds consist of \$4 million each (\$2 million from the state and \$2 million from private sources) and are available to businesses in Eastern Connecticut and South Western Connecticut.

Small Business Training

CEDF now offers small business skills workshops in a small group setting to its existing clients and makes this resource available to all other current small business owners throughout the state.

- Training topics include:
 - Basic Financials
 - Understanding Business Finances to Maximize Your Profit
 - Tax Issues For Small Business
 - QuickBooks
 - Public Relations
 - Customer Service
 - Marketing and Advertising

CEDF clients have the opportunity to reduce the interest rate on their loan for a total of up to three quarters of a percent (0.75 percent) by successfully completing three workshops. (A quarter of a

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percent (0.25 percent) reduction will be earned for each completed class, up to a maximum of three classes.)

- A Small Business Skills seminar to high risk/low income small business owners in East Hartford and four other locations around the state. These seminars teach financial planning skills, QuickBooks training, tax budgeting, recording and paying and other aspects of running a small business. It does not train firms on how to write a business plan. The program is expanding into areas such as marketing. Businesses may sign up for specific topics of interest (computerized accounting, MIS systems, marketing, etc.) at \$25-\$50 per course. A course consists of two-six workshops.

12. Hartford Economic Development Corporation (HEDCo) and Greater Hartford Business Development Center (GHBDC)

HEDCo & GHBDC work in tandem to stimulate economic development in the Hartford Metropolitan Area by collaborating with concerned public and private organizations to help start, finance, retain, and recruit small businesses within the region's core city, Hartford, and its fifty-seven surrounding cities and towns. HEDCo provides its small business clientele with business support needs that would be otherwise un-met or under-served. HEDCo partners with GHBDC to foster the community relationships crucial to sustained and broad-based economic growth and to provide small businesses throughout the region with alternative financing. HEDCo has staff who individually understand client and local market needs and collectively provide successful development outcomes.

HEDCo is a not-for-profit organization that awards loans to existing businesses located in Hartford or wishing to relocate or expand into Hartford, as well as individuals wishing to start businesses in Hartford. With \$20 million in loan funds dedicated to Hartford neighborhoods, HEDCo may lend to borrowers directly or participate with other banks and organizations.

Loan Products

The following are some of the loan products available at HEDCo:

HEDCo:	
	Description: These revolving loan funds are designated to encourage growth and stimulate small and mid-

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HEDCo:	
	sized industries and businesses resulting in the creation and retention of jobs in the region.
	Eligible Activities: The funds will entertain request for the following:
1.	<i>Acquisition and/or renovation of commercial or industrial real estate in which the applicant occupies a significant portion of the available space for the operation of the business. The Nuisance Abatement pool will cover acquisition and/or renovation of commercial property which the applicant occupies a significant portion for the business and the property has been determined to a nuisance and under the control of the City of Hartford and the State of Connecticut.</i>
2.	<i>Purchase of machinery and equipment.</i>
3.	<i>Purchase of inventory, financing of receivable and the overall enhancement of working capital.</i>
	Types of Loans: Direct loans, participation loans and loan guarantees.
	Minimum Interest Rate: 6.5% - 8%
	The Loan Approval Process: The approval process consists of several steps designed to obtain necessary information for the diligent review of the project under consideration. Outlined below are the major steps of the process:
1.	<i>Completed application including required documentation.</i>
2.	<i>Pre-qualifying interview.</i>
3.	<i>Appraisal and environmental survey on property to be acquired or used for collateral.</i>
4.	<i>Prospective borrowers should return completed application and additional information to The Hartford Economic Development Corporation, 15 Lewis St., Suite 204, Hartford, CT 06103.</i>
5.	<i>Loan requests are presented, discussed and approved by a Loan Committee. The Committee may vary terms when exceptional circumstances dictate.</i>
6.	<i>In some instances, approval by a Board of Directors is required.</i>
Merchants Revolving Loan Fund	
	Loan amount: up to \$50,000
	Term: Typically five years
	Covered towns: Hartford
	Others: Business located in the Frog Hollow and Parkville area must be/become members of the Spanish American Merchants Association.
Neighborhood Economic Development Fund	
	Loan amount: loans vary up to \$250,000
	Term: Typically 3-10 years
	Covered towns: Hartford, New Britain, New Haven, West Haven and Meriden.
	Others: Businesses located in New Britain, New Haven, West Haven, Meriden and Hartford's Frog Hollow and Parkville areas must be/become members of the Spanish American Merchants Association.

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HEDCo:	
Umbrella Revolving Loan Fund	
	Loan amount: loans vary up to \$150,000
	Term: Typically 3-10 years
	Covered towns: Hartford
Nuisance Abatement Loan Fund	
	Loan amount: Loans vary up to \$100,000 for manufacturing and \$25,000 for retail.
	Term: Typically 3-10 years
	Covered towns: Hartford
New London Revolving Loan Fund	
	Loan amount: up to \$30,000
	Term: Typically 5 years
	Covered towns: New London, Norwich and Groton
Business Consortium Fund	
	Term: up to 4 years
	Other: Business must be a certified ethnic minority vendors of the National Minority Supplier development Council Inc's (NMSDC). While it is desirable that Borrower have a contract or purchase order with a corporate Member of the NMSDC or affiliated RMSDC/RMPC, it is required at a minimum that borrower have a relationship with such corporate member.
Business Resource Center Contractors	
	Loan amount: Up to \$150,000
	Term: 3 -5 years
	Covered towns: Greater Hartford area
	Other: Must be associated with the Business Resource Center

GHBDC is a not-for-profit organization that awards loans to existing businesses located in Hartford or wishing to relocate or expand into Hartford, as well as individuals wishing to start businesses in Hartford.

The following are some of the loan products available at GHEDC:

GHBDC:	
	Description: These revolving loan funds are designated to encourage growth and stimulate small and mid-

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GHBDC:	
	sized industries and businesses resulting in the creation and retention of jobs in the region. These revolving loan funds are designated to encourage growth and stimulate small and mid-sized industries and businesses resulting in the creation and retention of jobs in the region. Our Non-Profit revolving loan fund is designed to assist 501(c)(3) Non Profits businesses.
	Eligible Activities: The funds will entertain request for the following:
1.	<i>Acquisition and/or renovation of commercial or industrial real estate in which the applicant occupies a significant portion of the available space for the operation of the business. The Nuisance Abatement pool will cover acquisition and/or renovation of commercial property which the applicant occupies a significant portion for the business and the property has been determined to a nuisance and under the control of the City of Hartford and the State of Connecticut.</i>
2.	<i>Purchase of machinery and equipment.</i>
3.	<i>Purchase of inventory, financing of receivable and the overall enhancement of working capital.</i>
	Types of Loans: Direct loans, participation loans and loan guarantees.
	Minimum Interest Rate: 6.5% - 8%
	The Loan Approval Process: The approval process consists of several steps designed to obtain necessary information for the diligent review of the project under consideration. Outlined below are the major steps of the process:
1.	<i>Completed application including required documentation.</i>
2.	<i>Pre-qualifying interview.</i>
3.	<i>Appraisal and environmental survey on property to be acquired or used for collateral.</i>
4.	<i>Prospective borrowers should return completed application and additional information to The Hartford Economic Development Corporation, 15 Lewis St., Suite 204, Hartford, CT 06103.</i>
5.	<i>Loan requests are presented, discussed and approved by a Loan Committee. The Committee may vary terms when exceptional circumstances dictate.</i>
6.	<i>In some instances, approval by a Board of Directors is required.</i>
Metro Hartford Revolving Loan Fund/Capital Region Revolving	
	Loan amount: up to \$150,000
	Term: Typically 3-10 years
	Covered towns: 29 Capital Region Towns
Non-profit Revolving Loan Fund	
	Loan amount: up to \$75,000 (Loans will not be made to fund deficits or operating losses of the applicant.)
	Term: Typically 1-4 years
	Covered towns: applicants located in the 29 Capital region towns.
	Guidelines: 1. The applicant must be a 501(c)(3) organization in good standing with the Internal Revenue Service and the

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GHBDC:	
	State of Connecticut and normally must have an operating budget of under \$8,000,000.
	2. The applicant must have a demonstrated track record of providing beneficial service to the community, with such benefit being maintained or enhanced by the loan being requested.
	3. Loans will only be made to cover short-term cash flow, working capital, leasehold improvement and/or machinery and equipment financing needs of the applicants.
The Central Connecticut Revolving Loan Fund	
	Loan amount: loans vary up to \$100,000 for manufacturing and \$25,000 for retail
	Term: Typically 3-10 years
	Covered towns: Berlin, Bristol, Burlington, New Britain, Plainville, Plymouth and Southington.
Hartford Foundation for Public Giving Contractors Fund	
	Loan amount: not shown
	Term: not shown
	Covered towns: not shown

Business Resource Center (BRC)

The Business Resource Center is a unit of HEDCo that operates as a one-stop shop for the provision of technical assistance and financing for WBEs, MBEs and the general small business population. They provide technical assistance for such purposes as business formation, business certification, and issues faced by contractors under the Minority Contractors program. One year old, the BRC created a \$1 million fund to provide bonding for MBEs and WBEs working on jobs in the city of Hartford. The Travelers Insurance Company leveraged these funds to create a pool of \$20 million. Any Connecticut company may qualify for bonding under this program (with the \$1 million specifically for MBEs and WBEs). This program is specifically for firms with no track record with bonding companies or those firms that are relatively new. The BRC also provides its clients with funds control, loan packaging and other services. Training is provided through various programs, such as a 30-hour OSHA safety course, and courses in scheduling, bidding, AIA billing, Blueprint reading, change orders, bonding and insurance.

13. Ironwood Capital Advisors LLC

Ironwood is located in Avon, Connecticut. It is licensed by the SBA as a Small Business Investment Firm. They provide equity and mezzanine financing (interim financing designed to be relatively short

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term in duration, typically retired by permanent financing or an equity infusion) to firms with revenues over \$10 million and EBIDA (earning before the deduction of interest, depreciation and amortization) of 10 percent. They have a goal to invest up to 50 percent of their \$360 million fund with women and minority owned businesses. The minimum investment Ironwood will make is \$4 million. The funding is typically made with 25 percent equity and 75 percent mezzanine debt which may or may not have warrants attached which convert the debt to stock. Ironwood seeks companies with good cash flow and a solid track record. (ironwoodcap.com)

14. Business Lenders, LLC

Business Lenders, LLC is a division of the Merrill Lynch Investment Corporation in Hartford, Connecticut. It provides SBA backed loans of all types with a much easier and less cumbersome loan evaluation process than traditional banks. They suggest that their services are much more efficient and faster acting than typical bank process. In addition to providing loans, they have established linkages with other business service providers to offer a complete business planning and technical assistance resource. The other providers offer business plan assistance, accounts receivable financing, insurance, legal support, and special assistance to businesses, which would be classified with marginal lending potential.

15. GE Capital Business Credit

GE Capital Business Credit is a division of General Electric finance, focusing on providing financial support for businesses in need of receivables financing and/or revolving loans.

16. People's Capital & Leasing Corp.

People's Capital and Leasing Corporation, headquartered in Waterbury, Connecticut, provides equipment leasing programs for businesses requiring asset financing.

17. Connecticut Accounting Aid & Services

Connecticut Accounting Aid & Services, located in West Hartford, Connecticut, was formed in 1974 by the Connecticut Society of Certified Public Accountants to further the development of small

companies. Volunteer CPAs provide accounting and financial counseling one-on-one and business education programs for groups of small business owners.

TRAINING

18. The Entrepreneurial Center, University of Hartford

The Entrepreneurial Center at the University of Hartford is a small business support organization that provides workshops for training small business entrepreneurs. The work shops include topics such as self assessment for existing and prospective business owners, business plan development, and research and assistance in seeking sources of capital. Most of these training sessions have a modest fee requirement. There are provisions for some of these fees to be waived for women and minority business owners.

19. International Union of Operating Engineers

Headquartered in Hamden, Connecticut, the International Union of Operating Engineers is a statewide construction trade union whose members include heavy equipment operators, mechanics, welders and shop workers. The Union works with the State of Connecticut to sponsor an apprenticeship program that was upgraded about eight years ago to be more inclusive of minority and woman participants. The program is a four-year effort, with the first six weeks being extensive classroom work. After completion of the first six weeks, the apprentice receives a certificate and their Commercial Drivers License (CDL.) On average, class sizes vary between 10-20 individuals (40–50 percent minority and 1–2 count women) each year. During the program, the union places these apprentices with companies. At the end of the training program, they are considered journeyman, with all the rights and privileges of a full union member.

20. Housatonic Community College (HCC)

On September 6, 2008, HCC began a new program "The Construction Management Training Program" which is aimed at enhancing skills of small contractors. The program is offered in both

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English and Spanish to enhance the opportunities for minorities working in construction. Offered over four consecutive six-hour Saturday session at HCC's Bridgeport campus, the intensive program covers fundamentals, such as blueprint reading, project scheduling, estimating and contract administration. Participants will receive two continuing education units and a certificate upon completion of the course.

The program is geared towards construction workers and people who have their own business and represents a three way partnership among HCC, the City of Bridgeport and the Regional Alliance for Small Contractors which is coordinating classes.

The program is open to all small contractors at a fee of \$50 for Bridgeport residents and \$100 for all others.

OUTREACH AND MATCHMAKING

21. The Connecticut Minority Supplier Development Council (CMSDC)

CMSDC, based out of Hamden, Connecticut, is a non-profit Connecticut corporation whose mission is to significantly increase procurement opportunities between its corporate members and certified minority-owned businesses. CMSDC has worked closely with the State of Connecticut and the major corporations and municipalities to provide opportunities for minority businesses. During the last three years, it has organized and hosted a Construction Expo which has brought together minority businesses, major construction contractors and construction procurement organizations to stimulate more growth, development and business opportunities. The Expo has grown to contain 50 trade show booths manned by the three groups with over 300 attendees to the one day event.

22. The Spanish American Merchants Association

The Spanish American Merchants Association is a non-profit Connecticut corporation located in Hartford Connecticut. It serves as a vehicle for the economic growth of small businesses, and in particular, Latino businesses. It assists businesses to acquire a better understanding of basic business management and economic principles through technical assistance and advocacy. They currently offer special training programs in Quick Books and Marketing.

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23. The Greater Manchester Chamber of Commerce

The Greater Manchester Chamber of Commerce in Manchester hosts a women-owned business support group, which meets at their facility. It provides networking and peer support for its members. The Chamber of Commerce does not provide any program support for this organization.

24. National Association of Women Business Owners (NAWBO)

NAWBO, a national organization has a state chapter in Connecticut. NAWBO is dedicated to advancing education, mentoring and empowerment of female business owners by strengthening their wealth, building strategic alliances, transforming public policy, influencing opinion and affecting changes in business culture and providing a positive support network.

25. Business Matchmaking

Business Matchmaking is a partnership between the SBA and the Service Corps of Retired Executives (SCORE) and the Hewlett Packard Small Business Foundation. It matches small companies with federal, state, and local government agencies and large corporations that have contract opportunities for products and services offered by smaller companies. Business Matchmaking combines education and counseling by expert small business advisors and topical experts with networking and matchmaking through regional face-to-face events.

26. Connecticut Business & Industry Association

Connecticut Business & Industry Association, located in Hartford, Connecticut, with over 10,000 members, is the state's largest business group. It promotes business and industry in the state by sponsoring programs and events that bring together business, government, education and private enterprise to work on common problems, manage, compete and comply.

ECONOMIC DEVELOPMENT

27. Connecticut Department of Economic and Community Development (DECD)

In addition to several other programs, the Connecticut Department of Economic and Community Development (DECD) provides support through the Small Business Development Centers to assist

small businesses. DECD's mission is to attract and retain businesses and jobs, revitalize neighborhoods and communities, ensure quality housing and to foster appropriate development in Connecticut's towns and cities. It provides financing programs, such as Small Cities Community Development Block Grant Program (CDBG), Urban Act Program, Small Town Economic Assistance Program (STEAP), Energy Conservation Loan (ECL) Program and the Connecticut Main Street Center Program. DECD's Office of Infrastructure and Real Estate (OIRE) manages various projects including municipal development projects, brownfield programs, and DECD surplus property program. OIRE also provides technical support functions such as project feasibility assessment, cost estimate validation/budgets, consultant design assistance, construction bid/contracting guidance, permitting/regulatory assistance, and construction services. CEDC also provides tax incentives to corporate businesses. It makes available pro bono business analysis and action planning to troubled small businesses that request financing through one of the State's programs utilizing technical assistance provided by members of the state's Turnaround Management Association.⁹⁷

28. Connecticut Development Authority (CDA)

Connecticut Development Authority's (CDA) mission is to expand Connecticut's economic base, by providing financing for business growth and success. Programs include the Urbank program, which provides loan guarantees for companies unable to get bank financing (maximum loan \$350K). CDA also provides direct loans in the form of direct senior, subordinated or mezzanine financing for businesses that have the potential to contribute significantly to the state. Additionally, the CDA provides financing for permanent working capital, equipment & machinery and real estate acquisition (up to \$5 million). The CDA may issue Industrial Revenue Bonds (IRBs) for manufacturers in amounts ranging from \$2 million to \$10 million.

9.3 Conclusions

There are a significant number of race-neutral programs targeted to assisting and supporting M/WBEs. Some organizations continue to rely on goal-based programs to ensure M/WBE participation in their organization's procurement opportunity. Though race-neutral programs within the Hartford MSA have made some progress in improving M/WBE management skills, access to

⁹⁷ The Turnaround Management Association (TMA) is the only international non-profit association dedicated to the development of a stronger economy through the restoration of corporate value. TMA Connecticut Chapter(<http://www.cttma.org/>)

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capital, and greater exposure to the larger business community, M/WBEs still face difficulty in gaining access to public and private sector contracting opportunities. Two critical issues, however, have not been addressed: (1) building capacity, and (2) increases in contracts.

Given this result, race-neutral programs providing management, finance and technical assistance, in and of themselves, do not appear to adequately address issues and barriers faced by M/WBEs in the Hartford MSA.

The Memorandum of Understanding signed by MDC allows the Business Resource Center (BRC), operated by the Hartford Economic Development Corporation (HEDco) to develop courses in marketing, contract financing, estimating, bidding, scheduling and safety program development. BRC also provides assistance in completing bond applications.

Chapter 10: Analysis of Private Sector

10.1 Introduction

The chapter begins with a summary of background information on the demographic and economic profile of City of Hartford within the MDC Metropolitan Statistical Area (utilizing U.S. Census data); and, a brief description of the industrial and occupational composition of the local economy.

Following this summary is a review of available research that addresses private sector disparities.⁹⁸ This chapter examines private sector disparities primarily in the construction industry in the following ways:

1. Occupational and apprentice employment using 2000 Census data;
2. Comparison by occupation of employment in the market place (based on EEO census tabulations);
3. Private sector bid and award activity, based on Reed Elsevier data;
4. Available information on access to finance by M/WBEs; and,
5. PUMS (US Census data) to examine factors that impact choice of self-employment and level of self-employment income;

The data will offer some insight into the extent of M/WBE penetration of the private sector of the local construction industry. To the extent the data allow, the present analysis may offer some evidence to the existence of passive participation by the city in discriminatory acts in the private sector.

⁹⁸ A fundamental constraint, however, is the scarcity of economic and historical research that is sufficiently localized to address the first *Crosby* standard.

10.2 Demographic and Economic Profile of the City of Hartford Area

The demographic structure of the local area may explain some differences in the market availability and utilization of M/WBEs, since business owners are a subset of the general population. Understanding the broad contours of the City of Hartford population is necessary to identify instances in which discrimination may have inhibited M/WBE development.

According to 2000 U.S. Census Bureau data, there were over 1.2 million people in the City of Hartford relevant market area. The relevant market area covers Hartford, MSA which includes White male; African or African-American; Hispanic; American Indian and Alaska Native; Asian American; Native Hawaiian and other Pacific Islander; and other races as shown in Table 10.1. In 2000 African American, Asian American, Hispanic American, American Indian and Other were over 26 percent of the City of Hartford population (Table 10.1). Hispanics (of all races) and African Americans comprised the largest minority groups at 8.76 percent and 8.62 percent respectively. Asians were at 2.03 percent of the total population.

Table 10.1 Population by Race and Ethnicity Census 2000 Relevant Market*		
Race/Ethnicity	Population	Percentage of Population
	#	%
White	954,912	73.64
African or African American	111,809	8.62
Hispanic**	113,540	8.76
American Indian and Alaska Native	2,751	0.21
Asian American	26,379	2.03
Native Hawaiian and Other Pacific Islander	490	0.04
Other Races	86,769	6.69
TOTAL	1,296,650	100.00

Source: Tape File 1 (STF 1) 100-Percent data. Census 2000 Summary File (SF 1) 100-Percent Data;

M³ Consulting

*MDC relevant market = Hartford, CT MSA.

**Hispanic origin may be of any race.

Table 10.2 contains data on the civilian labor force by race and Hispanic origin, according to the 2000 Census of Population. Over 77 percent of the civilian labor force of MDC relevant

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market (persons 16 years and over) was comprised of Whites. Close to 49 percent of the civilian labor force is female in FY 2000.

Table 10.2 Civilian Labor Force by Race and Hispanic Origin Census 2000 Relevant Market*			
Race	Gender	#	%
White	Male	261,941	40.51
	Female	238,575	36.89
	Total	500,516	77.40
African American or African American	Male	23,214	3.59
	Female	27,062	4.19
	Total	50,276	7.78
American Indian and Alaska Native	Male	462	0.07
	Female	661	0.10
	Total	1,123	0.17
Asian American	Male	7,931	1.23
	Female	6,514	1.01
	Total	14,445	2.23
Native Hawaiian and Other Pacific Islander	Male	169	0.03
	Female	201	0.03
	Total	370	0.06
Hispanic or Latino	Male	21,816	3.37
	Female	22,422	3.47
	Total	44,238	6.84
Other Race	Male	17,552	2.71
	Female	18,116	2.80
	Total	35,668	5.52
Male Total		333,085	51.51
Female Total		313,551	48.49
GRAND TOTAL		646,636	100.00

Source: 2000 Summary File 3 (SF 3) Sample Data; M³ Consulting

*MDC relevant market = Hartford, CT MSA

10.3 Education and Training: Pathways to the Construction Sector

It is generally recognized that relevant education and prior experience in an industry and occupation are strongly and positively correlated with the business formation decision. Of particular relevance to the formation of new businesses is the availability of jobs that offer the opportunity for occupational training, either in the form of formal apprenticeship training,

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or other more or less formal pathways to occupational expertise. This connection is particularly important in the construction industry.

Table 10.3 summarizes employment in construction occupations in 2000, as enumerated by the 2000 Census EEO File. In most of these occupations (with different skill requirements), White males accounted for a large majority of the male employment and Hispanic females account for the large proportion of female employment in Hartford CT, MSA. Hispanic males and African American males were the other groups that appear to be participating in the industry. The remaining race/ethnic groups have little to no participation in any of the occupations in the construction industry. Female participation is higher in production operations and transportation and material moving operations as opposed to construction, extraction, installation, repair and laborers.

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Table 10.3

**Employment in Selected Apprenticable EEO Construction Occupations
by Hispanic Origin and Race
Hartford, CT MSA*, 2000**

Occupation Race/Ethnicity/Gender	Construction and Extractive Craft Workers			Installation, Maintenance and Repair Craft Workers			Production Operation Workers			Transportation and Material Moving Operation Workers			Laborers and Helpers		
	Total #	Male %	Female %	Total #	Male %	Female %	Total #	Male %	Female %	Total #	Male %	Female %	Total #	Male %	Female %
Total	22,905	98.01%	1.96%	28,975	92.72%	7.26%	39,285	66.18%	33.84%	18,210	82.70%	17.33%	19,225	85.10%	14.92%
White	19,975	98.20%	1.80%	24,390	93.83%	6.17%	28,150	69.70%	30.30%	13,615	83.73%	16.27%	14,015	85.16%	14.84%
Hispanic	1,335	97.00%	3.00%	1,685	86.35%	13.65%	5,370	55.77%	44.23%	1,955	70.59%	29.41%	2,880	84.03%	15.97%
African American	1,100	98.64%	1.36%	2,010	86.07%	13.93%	3,115	59.39%	40.61%	2,130	85.92%	14.08%	1,700	87.94%	12.06%
Asian American	110	81.82%	18.18%	455	87.91%	12.09%	1,655	55.59%	44.41%	180	88.89%	11.11%	190	73.68%	26.32%
Native Hawaiian and Other Pacific Islander	15	100.00%	0.00%	0	0.00%	0.00%	34	11.76%	88.24%	10	100.00%	0.00%	30	100.00%	0.00%
American Indian and Alaska Native	25	100.00%	0.00%	25	60.00%	40.00%	50	20.00%	80.00%	35	100.00%	0.00%	35	57.14%	42.86%
Other Minority	339	95.87%	4.13%	405	93.83%	6.17%	920	65.22%	34.78%	289	84.43%	15.57%	378	84.66%	15.34%
Total Minority	2,924	96.96%	3.04%	4,580	86.90%	13.10%	11,144	57.24%	42.76%	4,599	79.56%	20.44%	5,213	84.88%	15.12%

Source: US Census Bureau, Census 2000 special tabulation

*Include Hartford County, Middlesex County and Tolland County, CT.

NOTE: Percentages may not add to total due to rounding.

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Typically, prior experience in an industry and occupation are strongly and positively correlated with the business formation decision. While Table 10.3 indicates those that may be employed in the construction occupations, it does not point toward potential self-employed M/WBEs since it includes mostly workers in the construction trade. Table 10.4 presents data on professional occupations (as enumerated by the 2000 Census EEO File), which may be more reflective of those most likely to be in a position of self-employment or business ownership. In the service sector, in managerial positions, males are in higher proportion than females; however the difference is not very large. Only among African Americans, females obtained more managerial positions than males. In science, engineering and computer professionals, overall, more males are employed in these occupations, while the opposite is noted in healthcare professions where females obtained more positions, and only American Indian males are in higher proportion than females. Males tended more toward sales and protective service professions, while females tended more toward technicians, administrative support, service work professions, and other professional jobs. These trends are seen across all race/ethnic groups.

In support service jobs such as technicians, sales workers, administrative support, protective service occupations, minorities represent 40 to 70 percent of employment. Overall, as represented in Table 10.5 females represent over 51 percent of the civilian labor force and minorities represent about 19 percent of occupations. In official and managerial occupations, these numbers are 49 percent and 10 percent respectively. Professional occupations employ about 55 percent female employees and 13.8 percent minorities, while technician occupations consist of 66 percent female and 16.7 percent minorities.

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Table 10.4 (Part 1 of 2)

**Employment in Selected Applicable EEO Professional Occupations
by Hispanic Origin and Race
Hartford, CT MSA*, 2000**

Occupation Race/Ethnicity/Gender	Management, Business and Financial Workers			Science, Engineering and Computer Professionals			Healthcare Practitioner Professionals			Other Professional Workers		
	Total #	Male %	Female %	Total #	Male %	Female %	Total #	Male %	Female %	Total #	Male %	Female %
Total	77,725	58.55%	41.43%	36,775	74.99%	24.99%	21,695	26.57%	73.43%	76,900	39.12%	60.90%
White	69,855	59.39%	40.61%	31,540	76.46%	23.54%	19,180	25.68%	74.32%	65,885	39.35%	60.65%
Hispanic	2,095	53.94%	46.06%	945	55.56%	44.44%	525	40.00%	60.00%	3,710	29.92%	70.08%
African American	3,405	44.05%	55.95%	1,315	56.27%	43.73%	870	18.39%	81.61%	4,625	42.27%	57.73%
Asian American	1,430	62.59%	37.41%	2,560	73.63%	26.37%	900	46.11%	53.89%	1,690	42.01%	57.99%
Native Hawaiian and Other Pacific Islander	4	0.00%	100.00%	45	55.56%	44.44%	10	0.00%	100.00%	20	0.00%	100.00%
American Indian and Alaska Native	95	52.63%	47.37%	19	78.95%	21.05%	10	100.00%	0.00%	145	17.24%	82.76%
Other Minority	825	53.33%	46.67%	344	79.65%	20.35%	199	22.11%	77.89%	840	42.86%	57.14%
Total Minority	7,854	51.12%	48.88%	5,228	66.26%	33.74%	2,514	33.37%	66.63%	11,030	37.72%	62.28%

Source: US Census Bureau, Census 2000 special tabulation

*Include Hartford County, Middlesex County and Tolland County, CT.

NOTE: Percentages may not add to total due to rounding.

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Table 10.4 (Part 2 of 2)

**Employment in Selected Applicable EEO Professional Occupations
by Hispanic Origin and Race
Hartford, CT MSA*, 2000**

Occupation Race/Ethnicity/Gender	Technicians			Sales Workers			Administrative Support Workers			Protective Service Workers			Service Workers, except Protective		
	Total #	Male %	Female %	Total #	Male %	Female %	Total #	Male %	Female %	Total #	Male %	Female %	Total #	Male %	Female %
Total	13,710	41.17%	58.79%	67,150	51.48%	48.51%	108,375	24.47%	75.55%	11,465	82.41%	17.43%	72,310	35.49%	64.51%
White	11,415	42.58%	57.42%	56,130	53.74%	46.26%	86,160	23.29%	76.71%	8,525	84.05%	15.95%	49,885	33.64%	66.36%
Hispanic	655	33.59%	66.41%	4,380	37.33%	62.67%	7,490	29.17%	70.83%	960	76.56%	23.44%	9,275	44.04%	55.96%
African American	1,035	29.47%	70.53%	4,160	38.70%	61.30%	11,355	27.70%	72.30%	1,625	80.31%	19.69%	9,380	33.53%	66.47%
Asian American	270	42.59%	57.41%	1,265	47.83%	52.17%	1,735	33.72%	66.28%	120	79.17%	20.83%	1,710	48.83%	51.17%
Native Hawaiian and Other Pacific Islander	0	0.00%	0.00%	65	38.46%	61.54%	80	43.75%	56.25%	0	0.00%	0.00%	15	0.00%	100.00%
American Indian and Alaska Native	65	30.77%	69.23%	90	50.00%	50.00%	165	21.21%	78.79%	30	66.67%	33.33%	100	40.00%	60.00%
Other Minority	264	46.97%	53.03%	1,055	45.97%	54.03%	1,410	32.62%	67.38%	186	68.82%	31.18%	1,940	39.95%	60.05%
Total Minority	2,289	34.25%	65.75%	11,015	39.99%	60.01%	22,235	28.99%	71.01%	2,921	78.16%	21.84%	22,420	39.61%	60.39%

Source: US Census Bureau, Census 2000 special tabulation

*Include Hartford County, Middlesex County and Tolland County, CT.

NOTE: Percentages may not add to total due to rounding.

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Table 10.5 summarizes employment by job categories in FY 2000, as enumerated by the FY 2000 Census EEO File. Within all job categories in the Hartford, CT MSA, Whites accounted for the large majority across all job categories, followed by African Americans and Hispanics. As officials and managers, the proportion of males is higher than females for Whites, Hispanics, Asians, Native Hawaiian and American Indian, while for African Americans, females are higher than males. Under professional jobs, more females are employed than males in most of the race/ethnic groups, except in Asians, where there are more males than females. Males tended more toward craft, laborer and helper jobs, while females tended more toward administrative support, technicians, sales workers and service worker jobs.

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Table 10.5 (Part 1 of 2)

**Employment in Selected Apprenticable EEO-1 Job Categories for Construction and Professional Services by Hispanic Origin and Race
Hartford, CT MSA*, 2000**

Occupation	Total Civilian Labor Force			Officials and Managers			Professionals			Technicians			Sales Workers		
	Total #	Male %	Female %	Total #	Male %	Female %	Total #	Male %	Female %	Total #	Male %	Female %	Total #	Male %	Female %
Total	618,525	51.66%	48.34%	77,725	58.55%	41.43%	135,370	46.86%	53.15%	13,710	41.17%	58.79%	67,150	51.48%	48.51%
White	500,515	52.33%	47.67%	69,855	59.39%	40.61%	116,605	47.14%	52.86%	11,415	42.58%	57.42%	56,130	53.74%	46.26%
Hispanic	44,235	49.33%	50.67%	2,095	53.94%	46.06%	5,180	35.62%	64.38%	655	33.59%	66.41%	4,380	37.33%	62.67%
African American	48,615	45.94%	54.06%	3,405	44.05%	55.95%	6,815	41.89%	58.11%	1,035	29.47%	70.53%	4,160	38.70%	61.30%
Asian American	14,360	54.94%	45.06%	1,430	62.59%	37.41%	5,150	58.45%	41.55%	270	42.59%	57.41%	1,265	47.83%	52.17%
Native Hawaiian and Other Pacific Islander	329	44.07%	55.93%	4	0.00%	100.00%	75	33.33%	66.67%	0	0.00%	0.00%	65	38.46%	61.54%
American Indian and Alaska Native	925	40.54%	59.46%	95	52.63%	47.37%	175	28.57%	71.43%	65	30.77%	69.23%	90	50.00%	50.00%
Other Minority	9,555	52.73%	47.27%	825	53.33%	46.67%	1,385	49.82%	50.18%	264	46.97%	53.03%	1,055	45.97%	54.03%
Total Minority	118,019	48.81%	51.19%	7,854	51.12%	48.88%	18,780	45.13%	54.87%	2,289	34.25%	65.75%	11,015	39.99%	60.01%

Source: US Census Bureau, Census 2000 special tabulation

*Include Hartford County, Middlesex County and Tolland County, CT.

NOTE: Percentages may not add to total due to rounding.

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Table 10.5 (Part 2 of 2)

**Employment in Selected Apprenticable EEO-1 Job Categories for Construction and Professional Services
by Hispanic Origin and Race
Hartford, CT MSA*, 2000**

Occupation	Administrative Support Workers				Craft Workers				Operatives				Laborers and Helpers				Service Workers			
	Total #	Male %	Female %		Total #	Male %	Female %		Total #	Male %	Female %		Total #	Male %	Female %		Total #	Male %	Female %	
Total	108,375	24.47%	75.55%		51,880	95.09%	4.92%		57,495	71.38%	28.61%		19,225	85.10%	14.92%		83,775	41.92%	58.08%	
White	86,160	23.29%	76.71%		44,365	95.80%	4.20%		41,765	74.27%	25.73%		14,015	85.16%	14.84%		58,410	40.99%	59.01%	
Hispanic	7,490	29.17%	70.83%		3,020	91.06%	8.94%		7,320	59.77%	40.23%		2,880	84.03%	15.97%		10,235	47.09%	52.91%	
African American	11,355	27.70%	72.30%		3,110	90.51%	9.49%		5,240	70.13%	29.87%		1,700	87.94%	12.06%		11,005	40.44%	59.56%	
Asian American	1,735	33.72%	66.28%		570	86.84%	13.16%		1,840	58.70%	41.30%		190	73.68%	26.32%		1,830	50.82%	49.18%	
Native Hawaiian and Other Pacific Islander	80	43.75%	56.25%		15	100.00%	0.00%		45	33.33%	66.67%		30	100.00%	0.00%		15	0.00%	100.00%	
American Indian and Alaska Native	165	21.21%	78.79%		55	81.82%	18.18%		85	52.94%	47.06%		35	57.14%	42.86%		140	46.43%	53.57%	
Other Minority	1,410	32.62%	67.38%		755	94.70%	5.30%		1,195	69.46%	30.54%		378	84.66%	15.34%		2,135	42.39%	57.61%	
Total Minority	22,235	28.99%	71.01%		7,525	90.83%	9.17%		15,725	63.72%	36.28%		5,213	84.88%	15.12%		25,360	44.05%	55.95%	

Source: US Census Bureau, Census 2000 special tabulation

*Include Hartford County, Middlesex County and Tolland County, CT.

NOTE: Percentages may not add to total due to rounding.

10.4 Analysis of Reed General Construction Data

In showing an additional source of employment and available contractors, M³ Consulting collected information maintained by the private firm of Reed Elsevier (Reed), which surveys all construction-related activity in various regions around the United States. Reed data is similar to the other major commercial database, FW Dodge. The substantial part of the Reed data relates to bid activity, and substantially so for projects owned by public entities than for private owners⁹⁹. M³ Consulting, however, analyzed all projects submitted whether public or private. In the case of the data M³ Consulting received from Reed, the selected geographic region for analysis was the Hartford, CT MSA.

The details about the data submitted by Reed Elsevier are presented in Chapter III, Statistical Methodology. M³ Consulting also discusses the information that was available and the information that was extracted from the database for the objectives of this study.

COMPARISON OF BID ACTIVITY AND BIDDERS ACROSS COMMERCIAL, PUBLIC AND NON-PROFIT OWNERS OF PROJECTS

Reed data provided all bids that occurred during the last two years in City of Hartford and State. Table 10.6 provides the frequency of the count of distinct projects in the relevant market by various agencies in the public sector and the private sector. There were a total of 3,945 projects for the FY 2005-FY 2008. Of these, the majority of the projects were public sector (74 percent) and the remaining 26 percent were private sector projects. Over 92 percent of projects, public and private sector went to White male-owned firms. MBEs and WBEs received 2.12 percent and 0.38 percent of public sector projects respectively. In private sector projects, 4 percent and 0.68 percent of projects were awarded to MBEs and WBEs respectively. SBEs received 5.21 percent of the public sector and 3.12 percent of all private sector projects.

Based on Table 10.7, the number of public sector projects more than doubled from FY 2005 to years FY 2006 and FY 2007, but declined in FY 2008. White male-owned firms, however, consistently received over 91 percent of projects for all years. In the private sector, White

⁹⁹ This may be a function of the ease with which public records may be accessed as opposed to bid documents of private owners that may be protected from public scrutiny.

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male-owned firms received anywhere from 88 to 94 percent of the projects (see Table 10.8). M/WBEs received 8 (4.21 percent) private sector projects in FY 2005, 27 projects (9.85 percent) in FY 2006, which declined to six projects (1.82 percent) and seven projects (3.02 percent) in FY 2007 and FY 2008 respectively. In contrast, in public sector projects, M/WBEs received 13 (2.95 percent) projects in FY 2005, 26 projects (2.77 percent) in FY 2006, which declined to 13 projects (1.50 percent) and 21 projects (3.12 percent) in FY 2007 and FY 2008 respectively.

Table 10.6
Count of Projects by Owner
Hartford, CT MSA

Ethnicity	Public		Private		Total	
	#	%	#	%	#	%
White male	2,694	92.29	946	92.20	3,640	92.27
Asian American	36	1.23	12	1.17	48	1.22
African American	20	0.69	4	0.39	24	0.61
Hispanic	2	0.07	4	0.39	6	0.15
Non-designated MBEs	4	0.14	21	2.05	25	0.63
MBE	62	2.12	41	4.00	103	2.61
WBE	11	0.38	7	0.68	18	0.46
Non-designated M/WBEs	0	0.00	0	0.00	0	0.00
M/WBE	73	2.50	48	4.68	121	3.07
SBE	152	5.21	32	3.12	184	4.66
Total	2,919	100.00	1,026	100.00	3,945	100.00

Source: Reed Data 2005-2008

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Table 10.7
Count of Projects by Owner and Fiscal Year
Project Owner: Public Sector
Hartford, CT MSA

Ethnicity	2005		2006		2007		2008		Grand Total	
	#	%	#	%	#	%	#	%	#	%
White male	408	92.52	856	91.16	805	93.06	625	92.73	2,694	92.29
Asian American	7	1.59	9	0.96	7	0.81	13	1.93	36	1.23
African American	0	0.00	9	0.96	5	0.58	6	0.89	20	0.69
Hispanic	0	0.00	1	0.11	1	0.12	0	0.00	2	0.07
Non-designated MBEs	3	0.68	1	0.11	0	0.00	0	0.00	4	0.14
MBE	10	2.27	20	2.13	13	1.50	19	2.82	62	2.12
WBE	3	0.68	6	0.64	0	0.00	2	0.30	11	0.38
Non-designated M/WBEs	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
M/WBE	13	2.95	26	2.77	13	1.50	21	3.12	73	2.50
SBE	20	4.54	57	6.07	47	5.43	28	4.15	152	5.21
Total	441	100.00	939	100.00	865	100.00	674	100.00	2,919	100.00

Source: Reed Data 2005-2008

Table 10.8
Count of Projects by Owner and Fiscal Year
Project Owner: Private Sector
Hartford, CT MSA

Ethnicity	2005		2006		2007		2008		Grand Total	
	#	%	#	%	#	%	#	%	#	%
White male	174	91.58	242	88.32	313	94.85	217	93.53	946	92.20
Asian American	6	3.16	4	1.46	1	0.30	1	0.43	12	1.17
African American	0	0.00	0	0.00	0	0.00	4	1.72	4	0.39
Hispanic	0	0.00	2	0.73	1	0.30	1	0.43	4	0.39
Non-designated MBEs	1	0.53	19	6.93	0	0.00	1	0.43	21	2.05
MBE	7	3.68	25	9.12	2	0.61	7	3.02	41	4.00
WBE	1	0.53	2	0.73	4	1.21	0	0.00	7	0.68
Non-designated M/WBEs	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
M/WBE	8	4.21	27	9.85	6	1.82	7	3.02	48	4.68
SBE	8	4.21	5	1.82	11	3.33	8	3.45	32	3.12
Total	190	100.00	274	100.00	330	100.00	232	100.00	1,026	100.00

Source: Reed Data 2005-2008

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Tables 10.9 and 10.10 below present firm availability by role based on Reed data. Accordingly, in the public sector projects, there appears to be at least 37 architects; 91.9 percent of who are White male-owned firms. There is one MBE and WBE architect each. In addition, there are five White male construction managers, 58 construction engineers with 3 MBEs and one WBE. There are also 73 general contractors that include three MBEs, one WBE and 12 SBEs; there are additionally 35 subcontractors that include two MBEs, one WBE and five SBEs.

In private sector projects, there are 54 architects, 98 percent of whom are White male-owned firms. In construction management, there are only 6 White male-owned firms and over 99 percent of Engineers, 97 percent of general contractors and all 100 percent of subcontractors are White male-owned as well in private sector contracts in the MDC relevant market. Based on Reed construction data, therefore, M/WBEs probably have a higher probability of finding construction sector jobs in the public sector domain.

Table 10.9
Firms Availability by Role and Project Owner
Project Owner: Public Sector
Hartford, CT MSA

Ethnicity	Architect		Construction Manager		Engineer		General Contractor		Subcontractor	
	#	%	#	%	#	%	#	%	%	#
White male	34	91.89	5	100.00	54	93.10	57	78.08	27	77.14
Asian American	1	2.70	0	0.00	2	3.45	0	0.00	1	2.86
African American	0	0.00	0	0.00	0	0.00	1	1.37	0	0.00
Hispanic	0	0.00	0	0.00	1	1.72	0	0.00	0	0.00
Non-designated MBEs	0	0.00	0	0.00	0	0.00	2	2.74	1	2.86
MBE	1	2.70	0	0.00	3	5.17	3	4.11	2	5.71
WBE	1	2.70	0	0.00	0	0.00	1	1.37	1	2.86
Non-designated M/WBEs	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
M/WBE	2	5.41	0	0.00	3	5.17	4	5.48	3	8.57
SBE	1	2.70	0	0.00	1	1.72	12	16.44	5	14.29
Total	37	100.00	5	100.00	58	100.00	73	100.00	35	100.00

Source: Reed Data 2005-2008

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Table 10.10
Firms Availability by Role and Project Owner
Project Owner: Private Sector
Hartford, CT MSA

Ethnicity	Architect		Construction Manager		Engineer		General Contractor		Subcontractor	
	#	%	#	%	#	%	#	%	%	#
White male	53	98.15	6	100.00	99	91.67	44	97.78	42	100.00
Asian American	0	0.00	0	0.00	2	1.85	0	0.00	0	0.00
African American	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Hispanic	0	0.00	0	0.00	1	0.93	0	0.00	0	0.00
Non-designated MBEs	0	0.00	0	0.00	4	3.70	1	2.22	0	0.00
MBE	0	0.00	0	0.00	7	6.48	1	2.22	0	0.00
WBE	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Non-designated M/WBES	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
M/WBE	0	0.00	0	0.00	7	6.48	1	2.22	0	0.00
SBE	1	1.85	0	0.00	2	1.85	0	0.00	0	0.00
Total	54	100.00	6	100.00	108	100.00	45	100.00	42	100.00

Source: Reed Data 2005-2008

COMPARISON OF M/WBE COMPETITIVENESS BASED ON RANKING OF BIDS

The data provided by Reed included a separate table listing the top three bidders on various projects. Hence, the firms with Rank #1 are essentially the low bid, and presumably the winner. Table 10.11 shows the distribution of firms by race/gender in terms of their rankings for public sector projects. If M/WBES are as competitive as their White male counterparts, then there should be no noticeable difference in their distributions across the ranking levels.

The results presented indicate that the percentage of M/WBES within each ranking level increases among the non-winners. Participation of M/WBES between Rank #1 and Rank #2 actually declined (10.22 percent to 9.12 percent), but the proportion of losers in Rank #3 increases to 12.00 percent (of the total losers in Rank #3) compared to those among winners (Rank #1).

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Table 10.11
Distribution of M/WBEs by Bidder Ranking
Public Projects - Reed Data
Hartford, CT MSA

	Rank #1		Rank #2		Rank #3	
	#	%	#	%	#	%
White male	280	75.27	211	77.01	164	72.89
Asian	2	0.54	1	0.36	1	0.44
Black	11	2.96	2	0.73	4	1.78
Hispanic	7	1.88	5	1.82	5	2.22
Native American	0	0.00	0	0.00	0	0.00
Non-designated MBEs	9	2.42	8	2.92	9	4.00
MBE	29	7.80	16	5.84	19	8.44
WBE	7	1.88	7	2.55	6	2.67
Non-designated MWBEs	2	0.54	2	0.73	2	0.89
MWBE	38	10.22	25	9.12	27	12.00
SBE	54	14.52	38	13.87	34	15.11
Total	372	100.00	274	100.00	225	100.00

Source: Reed Data 2002-2007; M³ Consulting, Inc.

Table 10.12 adds additional information to that contained in Table 10.11 by focusing on only private sector projects. There is a great difference in the percentage representation of M/WBEs within the Rank #1, Rank #2 and Rank #3. Rank #1 had 10 percent M/WBEs, but in the loser categories of Rank #2 and Rank #3 category for private sector projects, M/WBEs have zero percent M/WBE participation. This indicates M/WBEs are less competitive than White male-owned firms, in private sector projects than in public sector projects.

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Table 10.12
Distribution of M/WBEs by Bidder Ranking
Private Projects - Reed Data
Hartford, CT MSA

	Rank #1		Rank #2		Rank #3	
	#	%	#	%	#	%
White male	12	80.00	5	71.43	0	0.00
Asian	0	0.00	0	0.00	0	0.00
Black	0	0.00	0	0.00	0	0.00
Hispanic	0	0.00	0	0.00	0	0.00
Native American	0	0.00	0	0.00	0	0.00
Non-designated MBEs	2	13.33	0	0.00	0	0.00
MBE	2	13.33	0	0.00	0	0.00
WBE	0	0.00	0	0.00	0	0.00
Non-designated MWBEs	0	0.00	0	0.00	0	0.00
MWBE	2	13.33	0	0.00	0	0.00
SBE	1	6.67	2	28.57	3	100.00
Total	15	100.00	7	100.00	3	100.00

Source: Reed Data 2002-2007; M³ Consulting, Inc.

DISTRIBUTION OF BID VALUE AMONG RANK #1 BIDDERS

Table 10.13 summarizes the distribution of the dollar value of the bid amount among those bidders ranked as #1. Firms with Rank #1 have the low bids, and may be considered the winning bidder. In other words, Table 10.13 provides the distribution of awardees by race and gender. A total of \$1.9 billion in bid amounts occurred in public sector projects, and a total of \$6.0 million occurred in projects let by private entities.

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Table 10.13
M/WBE Value of Rank #1 Bid Amounts
Reed Construction Data
Hartford, CT MSA

	Private		Public	
	\$	%	\$	%
White male	3,788,367	63.03	1,670,002,543	88.90
Asian American	0	0.00	8,648,195	0.46
African American	0	0.00	4,550,621	0.24
Hispanic	0	0.00	21,651,413	1.15
Native American	0	0.00	0	0.00
Non-designated MBEs	50,428	0.84	27,215,109	1.45
MBE	50,428	0.84	62,065,338	3.30
WBE	0	0.00	45,984,692	2.45
Non-designated M/WBEs	0	0.00	3,778,839	0.20
M/WBE	50,428	0.84	111,828,869	5.95
SBE	2,171,800	36.13	96,769,465	5.15
Total	6,010,595	100.00	1,878,600,877	100.00

Source: Reed Data 2002-2007; M³ Consulting, Inc.

M/WBEs received \$111 million (5.95 percent) of the projects in the public sector, and they received \$50,428 (0.84 percent) for projects in the private domain. Table 10.14 provides the corresponding summary of counts of projects. M/WBEs received one private sector contract while they received 126 public sector projects.

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Table 10.14 M/WBE Count of Rank #1 Bids Reed Construction Data Hartford, CT MSA				
	Private		Public	
	#	%	#	%
White male	11	73.33	759	71.81
Asian American	0	0.00	6	0.57
African American	0	0.00	13	1.23
Hispanic	0	0.00	27	2.55
Native American	0	0.00	0	0.00
Non-designated MBEs	1	6.67	42	3.97
MBE	1	6.67	88	8.33
WBE	0	0.00	33	3.12
Non-designated M/WBEs	0	0.00	5	0.47
M/WBE	1	6.67	126	11.92
SBE	3	20.00	172	16.27
Total	15	100.00	1,057	100.00

Source: Reed Data 2002-2007; M³ Consulting, Inc.

DISTRIBUTION OF PRIME BID AMOUNTS: REED DATA

This section looks at the prime dollar award amounts based on project values for the MDC relevant market. The tables provide a comparison of these award amounts for private sector and public sector projects. Of a total of \$1.08 billion, in public sector projects, M/WBEs received less than 5.5 percent of the total dollars in the private sector. Of this, the majority of the dollars went to Asian American-owned firms. Of a total of \$1.06 billion, in private sector projects, 3.13 percent were M/WBEs who received less than 5.5 percent of the total dollars in the public sector. Asian American-owned firms had the highest dollar awards, although Hispanic American- and African American-owned firms received contract awards as well.

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Table 10.15 Based on Dollar Award Activity

Project Value (\$)
Public Sector
Hartford, CT MSA

Ethnicity	Architect		Construction Manager		Engineer		General Contractor		Subcontractor		Grand Total	
	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%
White male	94,674,884	63.85	187,455,698	100.00	442,947,698	98.41	4,709,570	47.82	281,064,372	98.25	1,010,852,222	93.45
Asian American	51,123,900	34.48		0.00	883,500	0.20	0	0.00	0	0.00	52,007,400	4.81
African American	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Hispanic	0	0.00	0	0.00	1,500,000	0.33	0	0.00	0	0.00	1,500,000	0.14
Non-designated MBES	0	0.00	0	0.00	0	0.00	4,500,000	45.69	0	0.00	4,500,000	0.42
MBE	51,123,900	34.48	0	0.00	2,383,500	0.53	4,500,000	45.69	0	0.00	58,007,400	5.36
WBE	500,000	0.34		0.00		0.00	75,000	0.76		0.00	575,000	0.05
M/WBE	51,623,900	34.82	0	0.00	2,383,500	0.53	4,575,000	46.45	0	0.00	58,582,400	5.42
SBE	1,979,647	1.34		0.00	4,760,048	1.06	564,342	5.73	5,000,000	1.75	12,304,037	1.14
Total	148,278,431	100.00	187,455,698	100.00	450,091,246	100.00	9,848,912	100.00	286,064,372	100.00	1,081,738,659	100.00

Source: Reed Data 2002-2007; M³ Consulting, Inc.

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Table 10.16 Based on Dollar Award Activity

**Project Value (\$)
Private Sector
Hartford, CT MSA**

Ethnicity	Architect		Construction Manager		Engineer		General Contractor		Subcontractor		Grand Total	
	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%
White male	47,650,000	60.58	320,400,000	100.00	453,000,000	97.25	170,575,000	100.00	27,803,000	2.61	1,019,428,000	95.88
Asian American	9,500,000	12.08	0	0.00	4,500,000	0.97	0	0.00	0	0.00	14,000,000	1.32
African American	11,000,000	13.99	0	0.00		0.00	0	0.00	0	0.00	11,000,000	1.03
Hispanic	0	0.00	0	0.00	6,100,000	1.31	0	0.00	0	0.00	6,100,000	0.57
Non-designated MBEs	0	0.00	0	0.00	2,200,000	0.47	0	0.00		0.00	2,200,000	0.21
MBE	20,500,000	26.06	0	0.00	12,800,000	2.75	0	0.00	0	0.00	33,300,000	3.13
WBE		0.00		0.00		0.00	0	0.00		0.00	0	0.00
M/WBE	20,500,000	26.06	0	0.00	12,800,000	2.75	0	0.00	0	0.00	33,300,000	3.13
SBE	10,500,000	13.35	0	0.00	0	0.00	0	0.00	0	0.00	10,500,000	0.99
Total	78,650,000	100.00	320,400,000	100.00	465,800,000	100.00	170,575,000	100.00	27,803,000	2.61	1,063,228,000	100.00

Source: Reed Data 2002-2007; M³ Consulting, Inc.

10.5 Access to Capital

THE NATIONAL SCENE

Federal Reserve Bank Chairman Alan Greenspan stated at a 2000 conference¹⁰⁰ that:

"In some cases, studies have found discrepancies in the turn-down rates for minority-owned small business applicants responding to our small business survey (NSSBF). Not all of these differences are readily explained by income, balance sheet factors, or credit histories, although considerably more work needs to be done to take account of possible explanatory factors not included in the studies to date. But, if after such examination, the gap persists, it raises disturbing questions."

Cavalluzzo, Ken and John Wolken [2002], using newly available data from the Federal Reserve,¹⁰¹ examined the impact of personal wealth on small business loan turndowns across demographic groups.

- They found substantial unexplained differences in denial rates between African American, Hispanic, Asian American, and non-MBE-owned firms.
- They also found that greater personal wealth was associated with a lower probability of loan denial. However, even after controlling for personal wealth, large differences in denial rates across demographic groups remained.
- Further, they noted some evidence the African American denial rates increased with lender market concentration.

As recent as 2003, Blanchflower, Levine and Zimmerman used both the 1993 and 1998 National Survey of Small Business Finances (NSSBF) data¹⁰² and examined the existence of discrimination in the small business credit market. The NSSBF has the advantage of a larger sample of minority firms and better controls for credit characteristics. The data is especially relevant since they were collected by the regulator – the Board of Governors of the Federal

¹⁰⁰ <http://www.theonefund.org/Greenspan.html>

¹⁰¹ Cavalluzzo, Ken and John Wolken. "Small Business Loan Turndowns, Personal Wealth and Discrimination." Finance and Economics Discussion Series 2002-35, Board of Governors of the Federal Reserve System, August 2002.

¹⁰² D. Blanchflower, P. Levine and D. Zimmerman, "Discrimination in the Small Business Credit Market," Review of Economics and Statistics, November 2003, 85(4), 930-943.

Reserve System and the Small Business Administration. Data on firms that applied for loans, firms that were approved for loans along with the characteristics of the firm and other factors are included. The NSSBF in 1998 provides more details of firms' credit ratings from Dunn and Bradstreet and personal housing and non-housing net worth of owners that may be used as collateral to secure loans. The sample in this 1998 survey¹⁰³ study included 3,561 firms. Blanchflower, Levine and Zimmerman [2003] found that:

- When minority-owned firms did apply for a loan, their loan requests were substantially more likely to be denied than other groups, even after accounting for differences in factors like size and credit history. A comparable loan filed by a firm owned by African Americans is twice as likely to be denied than if the application was filed by a White owner.
- The gap between African American- and White-owned firms is about 25 percentage points in denial rates in both survey years (1993 and 1998) in the small businesses credit market compared to eight percentage points in the mortgage market, controlling for creditworthiness and other characteristics.¹⁰⁴
- Both in 1993 and 1998, it is noted that African American-owned firms were charged at least one full percentage point higher than White-owned firms with similar creditworthiness and other characteristics.
- With the exception of large firms, in 1998, corporations, older firms, larger firms, and firms seeking credit for reasons other than working capital were 13 to 25 percent more likely to have their loan rejected if African American-owned, even though personal characteristics should be less important in these categories.
- When minority-owned firms received a loan, they would have to pay higher interest rates on the loan than was true of comparable White-owned firms. For African Americans, even if they got through the hurdle of having their loans approved, they have had to pay a one-percentage point higher interest rate than their White counterpart with the same application.

¹⁰³ Surveys were done in 1999 and 2000 of firms in business in 1998

¹⁰⁴ Other characteristics include the characteristics of loan applicants (amount requested, Percent loans to be used for working capital, Percent loans to be used for equipment, Percent loans to be used for land/buildings, Percent loans to be backed by real estate).

- A greater share of minority-owned firms complained that the availability of credit was, or had been, the most important issue likely to confront the firm in the past, present and future.
- The results imply African American-owned firms face impediments in obtaining credit that go beyond observable credit characteristics. These concerns discourage African American-owned firms from applying for loans, in fear of prejudice or discrimination.
- A very important conclusion is that there is no evidence that the level of discrimination in the market for credit has diminished during the 1990s.

These results occurred fairly consistently, regardless of the particular statistical relations specified among the factors affecting access to credit. Blanchflower, Levine and Zimmerman [2003] documented that the disparities in small business lending are much larger than the disparities in mortgage lending markets. They attributed this, in part, to special mortgage lending programs and regulatory incentives that are in the mortgage market and to the fact that there is a large secondary market for mortgage loans, but not for small business loans.

The Regional Scene:

For this analysis, M³ Consulting studied firms in the New England region using the 2003 NSSBF database. A total of 1,235 observations were used, although the majority of these were non-minority or non-Hispanic respondents. A total of 20 Asian or Hawaiian Pacific Islander firms, 15 African American-owned and 10 Hispanic-owned firms were among the respondents in this region¹. A total of 380 female-owned firms are also among the respondents¹⁰⁵.

Characteristics of firms by Race/Gender/Ethnicity.

Based on the data provided, minority or Hispanic firms and female-owned firms have slightly lower credit scores compared to white male owned firms.

¹⁰⁵ It should be noted that the number of observations on the MBE categories as indicated are small and consequently any statistical estimates for these groups are problematic and therefore not included. The demographic categories considered here are not mutually exclusive and include both genders. Female owned businesses can be of any race or ethnicity. Both are exclusive of white male.

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MBE or Hispanic American-owned firms' owners have a higher level of education than owners of White male-owned firms. Owners of female- and male-owned firms in the New England region have on average the same level of education.

The average experience of owners and the average age of firms is higher for male owners than female owners and for White male owners than minority or Hispanic American firm owners.

Table 10.17 Characteristics of Firms by Race/Ethnicity/Gender Hartford, CT MSA								
	MBE/Hispanic owned or not					Female-owned or Not		
		Sample size	Average	Std. Deviation		Sample size	Average	Std. Deviation
D&B Credit Score	MBE or Hispanic	45	3.89*	1.21	Female	370	3.99*	1.392
	White Male	1165	4.15*	1.331	Male	840	4.21*	1.292
Average education level of owners**	MBE or Hispanic	45	6	1	Female	380	5	2
	White Male	1175	5.0	2	Male	840	5	2
Average experience of owners (in years)	MBE or Hispanic	45	15.89	10.219	Female	380	20.57	10.224
	White Male	1175	22.51	10.801	Male	840	23.04	11.039
Age of firm in years	MBE or Hispanic	45	10.56	9.979	Female	380	15.76	11.311
	White Male	1175	17.14	11.066	Male	840	17.41	10.963

*D&B scores range from 0 to 100. 3 indicates a score between 26-50 and 4 indicates a score between 51-75. The higher the score the better the credit.

**Education is scored from high school or less to post graduate education of higher. 1 is less than high school; 2 is high school graduate or equivalent; 3 is some college but no degree granted; 4 is Associate degree occupational/academic program; 5 is Trade school/vocational program ; 6 is college degree and 7 is post graduate degree.

Loan characteristics:

The Table 10.18 presents loan characteristics by race/gender/ethnicity. The number of observations by gender is about even but the number of MBE or Hispanic American respondents were limited, which limits the analysis. The results indicate that, the number of

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mortgages that MBE/Hispanic American-owned firms have is higher than White male-owned firms while the difference between females and male owned firms is small.

In terms of lines of credit, there is not much difference in the groups based on race/ethnicity or gender. A larger percent of White male-owned firms use trade credit than females or MBE or Hispanic American-owned firms, but in terms of actual percent of purchases made using trade credit, the proportions were even across groups.

A lower percent of MBE or Hispanic and female owned firms were denied trade credit as opposed to White male-owned firms.

A larger percent of male owned firms and MBE/Hispanic owned firms had one or more applications for renewal of existing lines of credit.

In terms of percent of firms that had one or more applications for new loans excluding renewals of lines of credit, female and MBE/Hispanic American-owned firms exceeded White male-owned firms.

MBE/Hispanic American-owned firms applied on average for about \$155,667 in loans and received about the same amount. White male-owned firms applied for about \$1.13 million and were granted slightly more than they applied.

Females applied and were granted about \$215,000 in loans and males applied and were granted about \$1.46 million in loans.

The difference in the original interest rate charged on the loan as well as the total cost of obtaining a loan does not differ much among any of the groups in comparison with White male-owned firms.

The percent of firms denied loans is higher for the MBE/Hispanic American-owned firms than for White male owners. Despite this, the sample size for this group is too small to make any generalizations on this issue. However based on the data available for the New England region, credit does not appear to be an issue for MBE/Hispanic American-owned firms.

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**Table 10.18 Loan Characteristics by Race/Ethnicity/Gender
Hartford, CT MSA**

	Minority/Hispanic owned or not					Female-owned or Not			
		Sample size	Average	Std. Deviation			Sample size	Average	Std. Deviation
How many mortgages does the firm have?	MBE or Hispanic	10	5.5	4.743		Female	75	1.93	2.25
	White Male	190	1.45	0.995		Male	125	1.48	1.14
How many lines of credit does the firm have?	MBE or Hispanic	20	1	0		Female	140	1.07	0.258
	White Male	515	1.08	0.302		Male	395	1.08	0.309
Percent of firms using trade credit in the last year?	MBE or Hispanic	45	44.4			Female	380	69.7	
	White Male	1175	79.1			Male	840	81.5	
Percent purchases made using trade credit last year	MBE or Hispanic	20	63.75	37.588		Female	265	60.3	35.078
	White Male	930	67.86	33.728		Male	685	70.7	32.864
Percent of Suppliers denied firm trade credit	MBE or Hispanic	45	0			Female	380	2.6	
	White Male	1175	6.4			Male	840	7.7	
Percent of firms that had one or more renewals of existing lines of credit	MBE or Hispanic	45	25.1			Female	380	19.7	
	White Male	1175	11.1			Male	840	26.8	
Percent of firms that had 1 or more apps for new loans excluding renewals of loc	MBE or Hispanic	45	44.4			Female	380	27.6	
	White Male	1175	23			Male	840	22	
MRA total amount applied	MBE or Hispanic	15	155,667	59,139		Female	130	215,115	488,744
	White Male	430	1,133,049	5,426,686		Male	315	1,465,337	6,302,571
MRA dollar amount of credit granted	MBE or Hispanic	15	155,667	59,139		Female	130	215,153	488,728
	White Male	430	1,135,520	5,423,612		Male	315	1,468,695	6,298,780

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Table 10.18 Loan Characteristics by Race/Ethnicity/Gender Hartford, CT MSA									
	Minority/Hispanic owned or not					Female-owned or Not			
		Sample size	Average	Std. Deviation			Sample size	Average	Std. Deviation
MRA orig interest rate	MBE or Hispanic	15	5.5433	1.61481		Female	130	5.404	2.0061
	White Male	430	5.7986	2.43485		Male	315	5.9493	2.54529
MRA total cost obtain a loan	MBE or Hispanic	15	5,203	7,435		Female	130	1,279	3,226
	White Male	430	5,361	32,276		Male	315	7,038	37,573
Percent of firms denied loans	MBE or Hispanic	20	50			Female	150	16.6	
	White Male	455	6.6			Male	325	4.6	

Credit history of firms:

Based on the credit history of firms the frequency of owner and firm related delinquencies, judgments passed are higher for female owned firms than their male counterparts and for minority/Hispanic owned firms than their White male-owned firm counterparts.

More White male firm owners and more female-owned firm owners declared bankruptcy in the past seven years than MBE/Hispanic American-owned firms and male-owned firms respectively.

Based on race/ethnic grouping of firms the same percent of firms are in the 'high risk' category determined by credit scores while more MBE/Hispanic-owned firms are in the 'average risk' category.

More female-owned firms are in the high risk and average risk categories than their male counterparts.

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**Table 10.19 Credit History of Firms
Hartford, CT MSA**

	Minority or Hispanic owned	Non- Minority/Hispanic owned	Female	Male
Percent of Firms with delinquent obligations	22.2	17.7	22.7	15.8
Percent of Firms with judgements in the past three years	11.1	3.4	5.3	2.9
Percent of firms with owner declared bankruptcy in the past seven years	0	1.3	2.7	0.6
Sample size	45	1190	375	860
Percent of Firms in the High risk category (low credit score - D&B credit score of 0 to 25)	11	10.9	12.3	10.5
Percent of Firms in the Average risk category (average credit score - D&B credit score of 26-75)	55.6	47.5	47.9	48.3
Sample size	45	1180	365	860

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Other firm characteristics:

Based on other firm characteristics that may reflect capacity of firms, White male- and male-owned firms have higher sales, profits, assets and liabilities than minority/Hispanic- and female-owned firms. (See Table 10.20 below.)

Table 10.20 Other Firm/Owner Characteristics Hartford, CT MSA				
Firm/Owner Characteristics	Minority or Hispanic owned	Non- Minority/Hispanic owned	Female	Male
Total sales	1,674,722	4,159,436	1,341,519	5,258,165
Profit (any firm type)	51,362	550,259	187,425	682,366
Total Assets	532,166	3,027,644	468,754	4,012,862
Total loans that firms had	445,649	1,115,667	180,080	1,488,567
Total liabilities	579,790	1,814,505	326,158	2,398,887
Sample size	45	1190	375	860

Based on loan characteristics, M³ Consulting is limited in conducting regression analysis due to the limited numbers of observations of M/WBEs responding in the New England area, which included 20 M/WBEs on questions regarding loan denials and 15 or less on most other questions.

10.6 Disparities in Business Formation: PUMS Analysis

PUMS ANALYSES

Public Use Microdata Samples (PUMS) [from U.S. Census data] analysis is undertaken by M³ Consulting to examine the impact of race and gender, along with other demographic and economic factors that impact: (1) the choice of self-employment and (2) the level of self-employment income.

Promoting entrepreneurship is often a good way to improve the economic status of minorities and women. Disparities in business formation often limit the development and growth of firms. In their research on this topic, African American, Holtz-Eakin and Rosenthal [2000]¹⁰⁶ found that there was considerable spatial variation in self-employment rates (and self-employment earnings), especially for minorities—among metropolitan areas. They noted that the variation is 70 percent among African Americans, 166 percent among Hispanics, and 100 percent among Asians. A central point of the literature in self-employment has been on the degree to which access to capital limits the ability of individuals to attain self-employment, especially the role of such constraints in explaining racial differences in self-employment. Meyer [1990]¹⁰⁷. African American, Holtz-Eakin and Rosenthal [2000], in their analysis of regional rates of self-employment for the prime-age males (25 to 64) found:

- Overall, in the United States, the self-employment rate is 10.4 percent, which includes a range from 9.9 percent in the Northeast to 12.7 percent in the Pacific region; a difference of nearly 30 percent.
- The rate of self-employment differs greatly across races, ranging from a low of 4.3 percent among African Americans to 12.7 among Whites.

This section describes the two types of statistical analyses conducted to examine the impact of race and gender on self-employment, controlling for economic and demographic characteristics. The first analysis, undertaken via binary logistic regression, examines the likelihood that the individual will be self-employed. The second analysis, conducted via linear regression, examines the determinants of self-employment income. The analysis uses variables from the Public Use Microdata Sample (PUMS)

¹⁰⁶Black, D., D. Holtz-Eakin and S. Rosenthal (2001), "Racial Minorities, economic scale and the geography of Self-employment," Brookings-Wharton Papers on Urban Affairs, pp 245-286.

¹⁰⁷ Meyer, B. 1990. "Why Are There So Few Black Entrepreneurs?" National Bureau of Economic Research, Working Paper No. 3537.

data from the 2006 Census of Population and Housing. The labor force participants were selected for the sample if they satisfied the following criteria:

- Were residents of the State of Connecticut
- Were 18 years of age or older

Self-Employment Decision

First, M³ Consulting attempted to examine the factors that impact the self-employment decision and whether there are differences in the probability of self-employment among the different races and genders.

We examine the self-employment decision using a statistical technique called binary logistic regression model. In a logistic regression model, the dependent variable is a categorical variable where “yes” is equal to 1 and “no” is equal to 0. The binary logistic regression allows the statistician to determine if a certain characteristic increases or decreases the likelihood that the dependent variable will be a “yes” or a “no.” For instance, a statistician can use a logistic regression model to examine if a certain set of characteristics (called independent variables) will increase the likelihood of teen pregnancy in a certain population. Thus, the independent variables will allow the researcher to determine whether they contribute to the “yes” or “no” response, and also whether these variables impact the response variable by increasing or decreasing the likelihood. For example, the logistic regression may show that parental involvement may decreases the incidence of teen pregnancy, while single family home (lack of monitoring) may increases this likelihood. Similarly, we attempt to examine if a certain set of characteristics (called independent variables) will increase the likelihood of self-employment in a certain population (in this case, New York). Mathematically, the logistic regression model can be written as:

$$\ln(\pi/1-\pi) = \alpha + \beta_1 X_1 + \varepsilon_1$$

where:

$(\pi/1-\pi)$ =the probability of self-employment

α =a constant

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- β_1 =the coefficient for each of the independent variables
- X =the independent variable, namely race, gender, education level, marital status, household income, and home ownership status
- ε_1 =the error term that captures the variation in the variables

In our model, the binary logistic regression investigates if a set of independent variables such as race, gender, age, education, household type and other economic and demographic characteristics contribute to the likelihood of self-employment. We estimate this model for the entire sample from the PUMS database for Connecticut, and then separately for self-employment in areas of construction, non-construction, architecture and engineering.

Second, M³ Consulting analyzed the factors that impact self-employment income and whether self-employment income is impacted by race and/or gender.

We use linear regression to answer the question if the earnings of self-employed minority and female owners are different from those of White male-owned firms, given a set of economic and demographic characteristics. The dependent variable in this analysis is the amount of self-employment earnings.

Mathematically, the linear regression model can be written as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \dots + \varepsilon_1$$

where,

- Y =the self-employment income
- β_0 =a constant
- β_1 =the coefficient for each of the independent variables, representing the impact of that variable on the dependent variable, self-employment income
- X =the independent variable, namely race, gender, education level, marital status, language proficiency, disability, etc.
- ε_1 =the error term that captures the variation in the variables

In the linear regression model, we are able to estimate the impact of race and gender on the dependent variable, (earnings received by owners), controlling for the independent variables (economic and demographic characteristics).

10.7 Results and Discussion of the Analyses

This section provides the results of the binary logistic regression for impact of race and gender on the likelihood of self-employment.

The binary logistic regression analysis examined the impact of economic and demographic characteristics on the probability of self-employment across all industries. In particular, the analysis examined if minorities and females were more or less likely to be self-employed. The analysis includes six minority indicator variables: Hispanic, American Indian, Asian American, African American, Hawaiian-Pacific Islander, and female owners (based on PUMS data definitions). Research finds that minorities and females are less likely to be self-employed, perhaps due to factors such as limited access to capital and other resources. Other factors, such as level of education attained, household income, home ownership, marital status, and language proficiency are also contributing factors to self-employment. Thus, the likelihood of self-employment was determined to be a function of race and gender, a subset of economic and demographic variables that allow for self-employment.

The logistic regression is first estimated for the full PUMS sample for the State of Connecticut. The results of the logistic regression provide estimates of the independent variables and the probability of self-employment. The analysis allows the computation of the odds of self-employment or not, given this set of independent variables. The results of odds ratios for minority groups being self-employed are presented in the following table. The odds ratio estimates the probability of self-employment for the various race and gender groups after accounting for economic and rank demographic variables that may impact self-employment. Alternately, if minority groups who are similarly situated with White males, with respect to economic and demographic variables are compared, the odds ratio estimates the probability of each group's likelihood of self-employment compared to White males.

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Table 10.21 "Odds Ratio" For Self-Employment for Minority Groups Relative to White males Controlling for Economic and Demographic Factors

Race/Ethnic Group	Odds Coefficient	Odds Ratio Inverse
Hispanic American	0.921	1.086
American Indian	1.306	0.766
Asian Pacific Islander	0.443	2.257
African American	0.246	4.065
Hawaiian Pacific Islander	0.017	58.824
Other Race	0.408	2.451
Caucasian Female	0.494	2.024

Source: M³ Consulting, Inc., PUMS data, US Census Bureau

From the results listed in Table 10.21, comparing similarly situated individuals (in terms of economic and demographic variables), a non-minority male is 1.09 times more likely to be self-employed as a Hispanic American, over twice as likely as a Caucasian female and an Asian American, and over four times as likely to be self-employed as a African American.

The full results of the binary logistic regression are presented in the following table.

Table 10.22 Results of the Binary Logistic Regression Analysis for the Full Sample

Variable	Coefficient (β)	Standard Error	Significance (p-value)	Significance
Hispanic American	-0.082	0.315	0.795	N
African American	-1.402	0.37	0	Y
American Indian	0.267	0.572	0.641	N
Asian American	-0.814	0.318	0.01	Y
Hawaiian Pacific Islander	-4.094	15.726	0.795	N
Caucasian Female	-0.705	0.094	0	Y
Other Race	-0.898	0.505	0.075	N
Native American	-0.279	0.15	0.062	N
Age	0.067	0.018	0	Y
Age Squared	0	0	0.018	Y
Laid off	-1.846	0.419	0	Y
Disability Flag	-0.153	0.138	0.27	N
College Education	-0.245	0.099	0.014	Y
House Value	0.198	0.019	0	Y
Constant	-7.324	0.616	0	Y

Source: M³ Consulting, Inc.; PUMS US Census Bureau

The logistic regression estimates the likelihood of self-employment based on race and gender characteristics, controlling for variables related to economic and demographic factors. We find that

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race and gender have a significantly negative impact on the probability of being self-employed; Asian American-, African American-, and females are significantly less likely to be self-employed in Connecticut. Laid off individuals, however, are significantly less likely to be self employed. The economic and demographic control variables show that married individuals and those living in higher-value homes are more likely to be self-employed. Surprisingly, those with higher educational levels are less likely to be self-employed. Perhaps individuals with higher educational levels are able to more easily find professional careers in Connecticut especially with its proximity to New York and Philadelphia, while those with lower levels of education are more likely to seek self-employment.

Following are the results of the linear regression for the impact of race and gender on self-employment earnings.

The linear regression analyses estimated the impact of race and gender on self-employment earnings, controlling for economic and demographic characteristics. The dependent variable for this analysis is self-employment earnings. The independent variables and the hypothesized relation to self-employment earnings are as follows:

- **Age:** Research shows that age proxies for experience, and self-employment earnings should be positively related to age.
- **Sex:** Research shows that males are more likely to receive higher earnings than females.
- **Race:** Research shows that non-minorities earn more than minorities, and minority status should be negatively related to earnings.
- **College Education:** Research shows that individuals with higher educational levels earn more, and college educated individuals should receive higher earnings.
- **Age-Squared:** Research shows a non-linear relation between earnings and age. This variable captures the fact that earnings increase up to a certain age, and then tend to level off.
- **Disability:** Research shows a negative relation between earnings and disability status.
- **Marital Status:** Research shows that married individuals tend to earn more than those single individuals.

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- English fluency: Research indicates a positive relation between earnings and the ability to speak English fluently.
- Home Value: Research indicates a positive relation between self-employment earnings and the home values.

Table 10.23 Linear Regression Results for the Determinants of Self-Employment Income by Race and Gender for the Full Sample					
Variable	Coefficients (β)	Standard Error	t-statistic	Significance	Significant
(Constant)	-9966.882	3698.18	-2.512	0.012	y
American Indian	4947.597	5433.067	0.911	0.363	n
Asian American	-4205.356	1269.01	-3.314	0.001	y
African American	-4770.533	1909.33	-2.499	0.013	y
Hawaiian Pacific Islander	-5201.433	14321.423	-0.363	0.716	n
Other Race	-3576.641	1503.657	-2.379	0.017	y
Hispanic American	-1801.63	1147.825	-1.57	0.117	y
Caucasian Female	-4584.753	931.666	-4.921	0	y
Disability	-1967.451	1205.398	-1.632	0.103	y
Marital Status	-753.696	949.912	-0.793	0.428	n
English Fluency	1646.346	1195.447	1.377	0.169	n
College Education	-1500.518	838.31	-1.79	0.074	y*
Age	493.873	126.411	3.907	0	y
Age Squared	-4.704	1.211	-3.886	0	y
Home Value	267.755	128.569	2.083	0.037	y

Source: M³ Consulting, Inc.; PUMS US Census Bureau;

*Significant at the 10 percent level

Full Sample Results: The linear regression is first estimated for the full PUMS sample for the State of Connecticut.

Earnings = (-)9966.882 + 4947.597 American Indian + (-)4205.356 Asian American + (-)4770.533 African American + (-)5201.433 Hawaiian Pacific Islander + (-)1801.63 Hispanic American + (-)4584.753 Non-minority female + (-)3576.641 Other Race + 493.873 Age + (-)4.704 Age Squared + (-)1500.518 College Education + (-)1967.451 Disability + 267.755 Home Value + 1646.346 English Fluency + (-)753.696 Marital Status

From the above equation, we document that:

- All other variables kept constant, a self-employed African American will earn about \$4,771 less than a non-minority; a self-employed Hispanic will earn about \$1,802 less, an Asian American will earn about \$4,205 less and a non-minority female will earn 4,585 less than a non-minority male.
- An individual on disability earns about \$1,967 less, while the ability to speak English fluently increases self-employment income by about \$1,646. Surprisingly, those with a college education earn about \$1,500 less than those without a college education. Age increases earnings by about \$493. However, this decreases as one gets older, but by a very negligible amount. Married individuals earn \$754 less than single individuals and those with homes earn 268 more than individuals without homes.

10.8 Conclusions

This chapter examined various activities within the private sector in order to determine M/WBEs participation levels. The data from Reed Elsevier covered the Hartford, CT MSA and provided the bid activity in the area for public and private projects. The following observations can be made:

- In terms of counts of projects, M/WBEs received a higher percentage of number of contracts in the private sector than in the public sector (Table 10.6);
- In terms of project value, M/WBEs received a higher percentage of dollars in the public sector than in the private sector (Tables 10.15 and 10.16);
- M/WBEs are less competitive than their White male counterparts, based on the ranking of bidders;

To examine disparities in business formation from PUMS analysis on self-employment, comparing similarly situated individuals (in terms of economic and demographic variables), a non-minority male is 1.09 times more likely to be self-employed as a Hispanic American, over twice as likely as a females and an Asian American, and over four times as likely to be self-employed as a African American.

The linear regression analyses estimated the impact of race and gender on self-employment earnings, controlling for economic and demographic characteristics. It is noted from this regression

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that, all other variables kept constant, a self-employed African American, Hispanic American or Asian American and a female will earn less than a non-minority.

In addition, it is also noted that, an individual on disability earns less, while the ability to speak English fluently increases self-employment income. Surprisingly, those with a college education earn about slightly less than those without a college education. Similarly, married individuals earn less than single individuals and those with homes earn slightly more than individuals without homes. Age increases earnings but this declines as a person gets older.

Chapter 11: Conclusions and Recommendations

11.1 Introduction

Miller³ Consulting, Inc. (M³ Consulting) was commissioned by MDC to conduct a Disparity Study to determine the level of availability of minority- and woman-owned businesses (M/WBEs) in MDC's relevant market and the actual utilization of those firms in MDC's contracting opportunities. M³ Consulting conducted several analyses for MDC: legal analysis, statistical analysis of disparity in purchasing, purchasing analysis, survey analysis, anecdotal analysis, private sector analysis and race-neutral analysis. These analyses provide an overall picture of the environment faced by M/WBEs attempting to do business with and in MDC.

11.2 Conclusions

Based on the findings in the previous nine chapters, M³ Consulting draws an inference of discrimination against:

- African American-owned firms in construction;
- African American-, Hispanic American-owned firms and WBEs in non-professional services; and,
- Asian American-, African American-, Hispanic American- owned firms and WBEs in goods & supplies.

The disparity analysis revealed statistically significant disparity in these industry categories for these groups. For A&E and professional services, the disparity analysis either revealed non-significant disparity or overutilization for all M/WBEs. The regression analysis further suggests that disparities found may be due, in part, to race/gender/ethnicity.

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Table 11.1. MDC Disparity Ratios					
	A&E ¹	Construction ¹	Professional Services ¹	Non-professional Services ²	Goods & Supplies ²
Asian	Under	Under	Over	Over*	Under**
African	Under	Under**	Over	Under**	Under**
Hispanic	Over	Over*	Under	Under**	Under**
Native American	ND	0.0	ND	ND	ND
WBE	Under	Over*	Over	Under** ³	Under**

Source: M³ Consulting

1—Contract awards

2—Accounts payable (same results for PO data unless otherwise indicated)

3—If based on PO, underutilization, but non-significant

The statistical analysis, if reviewed in isolation, suggests that overall, MDC has utilized M/WBEs at higher levels than their availability in the marketplace or that underutilization could not be determined to be because of race/gender. In other words, the statistical analysis suggests that the MDC and the business community in which it sits has done a good job in utilizing M/WBEs on available contract opportunities. Yet, procurement processes and environmental factors may have guised the disparity results. It is important to remember that the statistics chart trends. The other findings and/or factors explain why these trends may exist.

The statistical analysis has captured a snapshot in time of the MDC procurement process. Through internal self-assessments, MDC had already started to recognize many organizational and process problems within its procurement process and had begun to implement changes that could significantly alter the statistical analysis after a full 12-month cycle under the new environment. However, many of these changes are outside of the purview of this study, as they were occurring post our data gathering process. It is our understanding that many other changes are still in the initial implementation phases.

The findings of this study should be reviewed in combination with other studies and activities currently underway, in order that MDC can implement a robust organizational change process that comprehensively addresses all issues completely and in a coordinated fashion.

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The procurement processes and environmental factors impacting the results of the statistical analysis are as follows:

1. Barriers within the MDC Procurement Processes
2. Limited MDC Outreach to M/WBE Community
3. Local Firm Capacity
4. Private Sector Participation and Prime Contractor Practices

BARRIERS WITHIN THE MDC PROCUREMENT PROCESSES

M³ Consulting identified several barriers to M/WBEs attempting to do business with MDC. These procurement barriers include the following:

- MDC has historically focused on doing business with a small number of incumbent vendors and using on-call contracts;
- Efforts to involve M/WBEs in the MDC contracting process are applied inconsistently throughout the organization, even though management has stated that it desires the implementation of an M/WBE program;
- Procedures are not in place that allow the Procurement Services Unit, Supplier Diversity, user departments and PMU to work in concert with each other to maximize M/WBE opportunities;
- Reporting procedures have not been established that will allow Supplier Diversity to be aware of projects in the planning stage and obtain reports of on-going activities reported on a monthly basis;
- A structured matchmaking, technical assistance and outreach program has not been developed that will allow MDC to truly involve the total community in all contracting opportunities with the MDC; and,
- Goal-setting on projects is not project-specific. The MDC Procurement Services Unit and Supplier Diversity are not isolating the various work elements within bid documents and identifying M/WBEs who are potentially available to provide the service. This methodology will enable the MDC to set goals that at times, may be higher than the current goals. (See *Procurement Chapter, VII-215*).

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The end result is that these procurement practices have impacted both availability and utilization outcomes.

Availability among all firms may be lower than normally expected. For the period of FY 2005-2007, MDC data reflected a significant number of contracts on which there were only 1-2 bids. (See *Procurement Chapter, VII-205*) Through increased efforts to open up the bid process, FY 2008 numbers reflect an increase in the number of bidders on all MDC opportunities.

Closed procurement practices typically impact small-, minority- and woman-owned businesses to a greater degree. These firms tend not to submit bids to organizations which they consider not to be transparent, fair and equitable. This conclusion is supported by anecdotal testimony in the *Anecdotal Chapter, VIII-222*.

When comparing RWASM availability to Census, M/WBEs have lower percentage availability for Census than RWASM in construction. Numerically, however, there are a greater number of M/WBEs than reflected in RWASM; the numerical difference for White males is much larger than that for M/WBEs. When using Census County Business Patterns (CBP) to determine availability of firms within MDC's areas of specialization, again, we see much higher *numbers* of available firms based on counts than are bidding on MDC contract opportunities. (see Appendix, Tables A.59 and A.60) Even a comparison of certified DBEs by CT DOT, only for MDC areas of specialization, reveals greater numbers of DBEs than are bidding on MDC opportunities. (see Appendix, Tables A.68 and A.69).

While these firms may be potentially available, it does not suggest that CBP and CT DOT are better measures of availability, particularly given the MDC procurement environment. The low level of bid activity as shown in the procurement chapter and the negative perceptions of MDC expressed by several M/WBEs, along with anecdotal and statistical data on lack of firm financial strength does not suggest that this larger pool is "ready, willing and able" to do business with MDC.

M³ Consulting anticipates, however, that the number and mix of firms "ready, willing and able" to do business with MDC will change dramatically over the next few years, as MDC's Clean Water project moves into full gear. With this increased procurement and contracting activity at MDC, and the completion of several major projects for other public entities in the Hartford area, firms—both White male-owned firms and M/WBEs—will begin to focus more on available opportunities at MDC.

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As for utilization, the preference for doing business with a small number of firms and reliance on on-call contracts creates a significant outlier impact. That is, firms that repeatedly win contracts with MDC skew the results for a particular race/gender group. For example, one WBE significantly contributes to the utilization of WBEs in construction. When removed, WBE utilization falls from 11.26 to 8.18. One Hispanic-owned firm received a \$22 million contract in FY 2008. With the exception of this firm, Hispanic-owned firms' utilization falls from 24.79 to 2.59 for the study period. (see *Utilization Chapter*, p. V-123) The top ten analysis further buttresses this conclusion, as 10 firms secured over 38.74 percent of the MDC contracts awarded over the study period. M³ Consulting anticipates that the outlier effect will begin to diminish as more firms begin to bid on MDC opportunities. With greater levels of competition, incumbent firms may begin to win fewer awards. Anecdotally, MDC staff has stated that they already started to see this effect in FY 2008.

LIMITED MDC OUTREACH TO THE M/WBE COMMUNITY

MDC traditionally has had a low level of outreach to the M/WBE community. Recent efforts have been implemented to address the outreach issue. This process, however, will take time given the high level of distrust that currently exists in the M/WBE community.

LOCAL FIRM CAPACITY ISSUE

Firms desirous of doing business with MDC must face several capacity determinations. Any firm that wants to bid on MDC opportunities over \$500,000 must be pre-qualified by the Connecticut Department of Administrative Services. Furthermore, under the MDC charter, Sec 3-11, any "single item of capital expense not regularly recurring" in excess of \$5 million dollars must be approved by two-thirds vote of the board and a majority of the electors of the district. Any appropriation "in one year for the purpose of meeting a public emergency" over \$10 million must be similarly approved. MDC interprets these charter requirements as an upper limit on the size of its contracting opportunities. Under the 2006 Clean Water referendum, however, these charter requirements do not apply to Clean Water projects.

The threshold analysis reveals the dangers of these types of measures on firm growth and operation. For the most part, M/WBE utilization occurs below the Connecticut Department of Administrative Services (DAS) \$500,000 pre-qualification limit (when outliers are accounted for). On the other end, White male-owned firms show no participation above \$10 million. In FY 2008, MDC moved away from this charter requirement somewhat, increased its outreach, and attempted to increase the

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number of bidders on its contract opportunities. The end result was an award to a NJ-based Hispanic-American owned firm in excess of \$20 million. While the threshold analysis provides an inference of capacity, the MDC environment reflects that procurement operations can have a hampering effect on actual capacity.

These imposed capacity thresholds may have the greatest impact on local firms who have traditionally bid on and won MDC contracts. MDC is now moving from a period of relatively small contracts which local firms could meet to larger contracts, which is beyond their typical capacity load. Further, MDC is moving from plant construction, which local firms have been involved into tunnel construction, which is activity in which neither MDC nor local firms have been involved to any significant degree.

Capacity, however, could expand in the Hartford area as larger firms enter the marketplace and may offer larger, more stable subcontractor opportunities to local firms. Without proactive efforts by MDC to address this lack of capacity among both White male-owned firms and M/WBEs, the opportunity to expand local firm capacity at both the prime and subcontractor levels may be missed.

M³ Consulting's analysis of capacity based on Census data and survey data was generally inconclusive. The results do suggest that M/WBEs have significantly lower revenues than similarly situated firms. Variation in their revenues (based on revenues regression), however, may not be purely due to chance and may be due to differences in race/ethnicity/gender¹⁰⁸. Due to limited data, the multivariate regression presented above cannot conclusively state that this result is largely due to the difference in capacity of firms.

PRIVATE SECTOR PARTICIPATION AND PRIME CONTRACTOR PRACTICES

Reed Construction data revealed that M/WBEs won more contracts in the public sector than in the private sector, although participation is relatively low in both arenas. Based on data gathered over a five-year period, MBEs received 0.84 percent of private sector dollars, while WBEs received 0.00. In the public sector, MBEs received 3.30 percent, while WBEs received 2.45 percent.

The lower levels of private sector participation may be a result of unfair business practices by prime contractors. Anecdotal testimony buttressed this finding to some degree. While a few M/WBEs

¹⁰⁸ The caveat to note from these conclusions is that while this is true for the respondent firms, the number of respondents being low limits us to generalize these results to the population of firms that bid with MDC.

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stated that they fared better in the private sector, some M/WBEs discussed unfair business practices utilized by prime contractors—such as bid shopping and non-utilization of named subcontractors. (See *Anecdotal Chapter, VIII-227, 239, 240*) The MDC, on its own, discovered many of the unfair business practices outlined in the anecdotal chapter and took steps to ensure this activity was not occurring on its own contracts, including imposing penalties on firms that continued to engage in this type of activity. The MDC, based on *Croson*, should insure it is not a passive participant in private sector discrimination.

M³ Consulting was unable to probe the extent of these unfair business practices on M/WBE participation in both private and public sector opportunities, due to the high degree of mistrust and apathy in the M/WBE community, which contributed to low participation in the anecdotal and survey process. Further, building permits data from the City of Hartford was not made available for this analysis, such that M³ Consulting could further probe M/WBE participation in private sector opportunities.

Addressing any of the issues outlined above could dramatically impact both availability and utilization of M/WBEs. As such, we strongly recommend, in addition to the recommendations outlined below, that the MDC conduct yearly statistical updates to map its progress in making adjustments to its procurement processes, using these findings as a baseline. While it may be tempting to utilize measures of potential availability, it will not provide MDC with direct results on the success of its organizational development efforts.

11.3 Recommendations

In light of the findings discussed in the previous chapters and the conclusions above, M³ Consulting is providing the following recommendations to MDC. The recommendations contain both race/gender-neutral and race/gender-conscious elements. The recommendations are grouped under the following categories:

- Changes in Purchasing Procedures and Practices
- Enhancements to the Minority and Women Business Enterprise Program
- Nondiscrimination Policy
- Identification of Race/Gender-Conscious Goal Possibilities

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- Goal-Setting Formulas and Techniques

These recommendations consist of a listing of pertinent options from which MDC may select in narrow tailoring its efforts to the findings of this report. The options combine agency specific and best practices recommendations that are legally defensible in light of the factual findings of this study. MDC should consider adoption of those recommendations that are considered most appropriate in terms of cost, resources, likely effectiveness, community acceptance and organizational feasibility.

Following careful consideration of these recommendations, MDC will be positioned to customize and modify its current Supplier Diversity Program to enhance its effectiveness.

CROSON PARAMETERS FOR RECOMMENDATIONS

If MDC chooses to continue to utilize some form of a race/gender-conscious program, it will need to meet the U.S. Supreme Court requirements of *Richmond v. Croson*. Narrow tailoring is the crucial element in crafting appropriate *Croson* remedies. Courts, for failure of local jurisdictions to narrowly tailor their remedies, have struck down many M/WBE programs. Once a factual predicate has been established, post-*Croson* case law presents several broad guidelines for crafting recommendations for M/WBE programs by a public entity, based on the factual predicate findings.

- Race/gender-conscious M/WBE programs should be instituted only after, or in conjunction with, race/gender-neutral programs.
- M/WBE programs should not be designed as permanent fixtures in a purchasing system without regard to eradicating bias in standard purchasing operations or in private sector contracting. Consequently, each M/WBE program should have a sunset provision, as well as provisions for regular review. Additionally, there is the implication that reform of purchasing systems should be undertaken.
- M/WBE programs should have graduation provisions for the M/WBEs that have largely overcome the effects of discrimination and no longer are in need of a remedy.
- Rigid numerical quotas run a greater risk of being overturned by judicial review than flexible goals.

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- Race/gender-conscious goals, if any, should be tied to M/WBE availability and to addressing identified discrimination.
- M/WBE programs should limit their impact on the rights and operations of third parties.
- M/WBE programs should be limited in scope to only those group(s) and firms that suffer the on-going effects of past or present discrimination.

CHANGES IN PURCHASING PROCEDURES AND PRACTICES

These measures are designed to address the underlying systemic factors that contributed to the disparity in contracting. M³ Consulting is providing MDC with procurement and M/WBE recommendations that will allow MDC the ability to determine specifically how it will adjust its procurement system. The following recommendations address procurement policies, procedures and practices that can be adjusted in order to allow MDC to effectively include M/WBEs in its contracting opportunities in a race/gender-neutral environment.

We note that current goal-setting techniques employed by MDC do not typically produce results different from the overall organizational goals. To be consistent with *Croson*, it is important that the overall goal be viewed as a *target* and not operate as a *quota*. Given the complexity of the MDC contracting and purchasing opportunities, there should be observable variability in project goals. Goal-setting techniques are discussed in more detail later in this chapter. However, in the context of procurement operations that promote the implementation of leadership's M/WBE policies and commitments, we recommend the following:

a. Development of a Procurement and Economic Development Council

Particularly under the Clean Water Program, MDC will contribute heavily to the local economy over the next ten years. However, the current organizational structure of MDC does not consider the procurement function to be a driver of economic development. From a practical standpoint, the organization controls MDC dollars that can be used to spur economic development. M³ Consulting proposes that MDC take the leadership in the creation of a citywide procurement and economic development council, which preserves the current MDC structure, but brings together the appropriate officials to plan procurement and economic development initiatives in a manner that maximizes the growth and development of local firms, particularly small-, minority- and woman-owned firms.

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In this structure, the Chief Executive Officer would be responsible for guiding the strategic process for translating procurement and contracting forecasts into socioeconomic development targets, as it relates to business and employment development.

The procurement and economic development council, having the greatest amount of knowledge and information regarding business and economic development initiatives in the City of Hartford, is positioned to utilize MDC purchases in a manner that maximizes business and economic growth.

b. Optimize Procurement Projections from Annual Budgeting and Forecasting Process

MDC should develop a budgeting and forecasting process for procurement and Capital Improvement Projects that provides project information necessary for planning its activities as it relates to M/WBE participation in the five industry categories of A&E, construction, professional services, non-professional services and goods & supplies.

Once procurement projections are completed, the Procurement Services Unit should consolidate and categorize the procurement projections, such that they can be utilized for planning purposes. Procurement projections should be posted to the MDC website. The procurement projections should be organized as follows:

- By department
- By industry category and by commodity
- By anticipated bid/solicitation date
- By project manager responsible
- On major development and infrastructure projects, projections should include projected sub industry and commodity categories necessary for completion of the overall project. This process moves beyond simple contract unbundling. It anticipates the categories that a construction manager or prime contractor will need to address in its planning process in order to construct a winning team of joint venture partners and/or second- and third-tier subcontractors/subconsultants.

With this information in hand, MDC can conduct the following tasks:

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- Combined with economic indicators and workforce analysis, project the impact of MDC purchases on economic, business and employment growth in the City of Hartford.
- Conduct pre-bid matchmaking, as discussed in detail below at p. XI-342.
- Identify areas where local capacity is needed among both M/WBEs and non-M/WBEs and begin pre-bid capacity building efforts.

c. Integration of M/WBE Objectives into the Purchasing Process

The key to the effective operation of any race/gender-conscious or race/gender-neutral programmatic initiatives is their integration into the purchasing process, such that employees with buying authority can be held fully accountable for the results. When M/WBE initiatives are separated from the purchasing process, they tend to become someone else's responsibility.

There are several adjustments that MDC can make to ensure that employees with buying authority are held fully accountable for increasing the level of business that they do with M/WBEs:

1. Establishment of a clear mission, goals and objectives, the communication of such throughout the organization and the community, and appropriate oversight of their implementation.
2. Establishment of M/WBE spending goals for employees with buying authority, based on the commodities for which they are responsible.
3. Tracking of purchasing activity by employees with buying authority, level of business done with M/WBEs, number of awards to individual vendors (by purchasing unit and/or employees with buying authority), and dollar value of awards to individual vendors (by purchasing unit and/or employees with buying authority).
4. Establishment of evaluation mechanisms for senior management and employees with buying authority to measure their effectiveness in achieving the goals and objectives of MDC's M/WBE program.
5. Training which will enhance the achievement of MDC's M/WBE objectives by creating responsibility for the program among all employees involved in buying.

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6. Greater integration of Supplier Diversity into the purchasing process. Goal setting and innovative techniques that facilitate M/WBE participation, such as matchmaking, should be planned and jointly executed by the Procurement Services Unit, PMU, Supplier Diversity and departments with buying authority.
7. Clarify responsibility for monitoring compliance with contractors' M/WBE commitments, so that implementation can occur expeditiously.

d. Promoting M/WBE Participation at the Prime Contractor Level

MDC is positioned to implement several activities to promote the inclusion of M/WBEs at the prime contractor level. Below is a listing of those efforts that MDC can undertake:

- Utilize race/gender-conscious initiatives such as evaluation preferences, joint venture incentives, price preferences, targeted solicitation;
- Utilize bid rotation;
- Unbundling contracts into commercially viable units;
- Create and optimize small business set-aside program (discussed at p. XI-345);
- Optimize joint venture;
- Target solicitations electronically to M/WBEs based on project descriptions and scope of work;
- Develop and encourage mentor/protégé programs;
- Review and revise all technical specifications to exclude proprietary language that discourage M/WBEs from bidding; and,
- Eliminate bonding requirements on contracts less than \$300,000 or utilize bonding techniques discussed below.

e. Bonding and Insurance Requirements

While State law indicates that bonds and insurance requirements should be included on projects, there are no dollar limits established. It does state that bond waivers are not allowed. MDC procurement rules also do not identify dollar limits. As such, this provides MDC with flexibility to establish bonding and insurance requirements that are amenable to the small business community.

BONDING

Payment and performance bonds are customarily required on construction contracts. A payment bond is a guarantee to the owner (MDC) that payroll will be met and that suppliers and subcontractors will be paid. A performance bond protects the owner in the event the bonded contractor defaults in its performance of the contract or otherwise fails to perform.

Bonds are financial instruments, treated much like extensions of credit, issued by bonding companies. All contractors who secure bonds must demonstrate creditworthiness, a good record of past performance, and are subject to bonding limits much like credit limits. The rate charged for a bond is tied to these factors, as well as the amount of the bond. As such, many relatively new businesses, small businesses, and M/WBEs have problems securing bonds at the level needed, securing bonds at all, or securing bonds at reasonable rates.

At least four approaches may be taken to remove the barrier that bonding requirements sometimes can represent. These include waiving bonding requirements, removing customary bonding stipulations at the subcontract level, reducing bonding, and phasing bonding. Each is described below:

- *Waiving bonding requirements.* While bonding may be required by local, state, or federal statute in particular instances, all governmental entities have some latitude in requiring a bond in the first place. Typically, small dollar value contracts are not required to have bonds. An honest assessment of the actual risk involved to the owner ought to be performed before deciding to always require a bond on every job. In addition, bonds can be required within a certain number of days after bid submittal, rather than with the bid submittal, so that only low bidders, and not unsuccessful bidders, must obtain them.
- *Removing bonding stipulations at subcontract level.* Typically, on larger construction jobs, the owner requires bonds of the prime contractor. This means, essentially, that the total job is bonded. The practice of requiring bonds of subcontractors is just that, a practice. It is not required by the owner. Therefore, the owner may develop a policy that does not permit a prime's requirement of a subcontract bond to constitute a barrier to M/WBE participation.

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Both the owner and the prime contractor should be willing to undertake special activities to monitor subcontractors' performance and lend technical assistance, if necessary.

- *Reducing bonding.* Rather than requiring a 100 percent payment and performance bond, consideration also can be given to reducing the dollar coverage of the bond. A 50 percent bond, for example, can be required, thus reducing the size and cost of bonding. In this way, a company's bonding capacity is not reached so quickly and bonding is made more affordable. The owner benefits by still being protected by a bond and in the form of lower bids since the cost of bonding is built in to contractor's bids.
- *Phasing bonding.* This technique can be used in instances where bonding cannot be waived but where there are limitations of the low bidder to obtain a full bond. If the contract amount is \$1 million, for example, the owner can divide the job into three phases, each requiring a separate notice to proceed. The successful bidder is then required to obtain a bond of approximately \$333,333.00. Upon completion of the first phase of the work, the bond is released and the contractor is required to provide a second bond in a like amount. This process is then repeated for a third time. The owner thereby accommodates a small or M/WBE firm that might not otherwise qualify, the owner is still protected from risks, and the contractor builds a track record of completing work under three bonds, thereby building bonding capacity and lowering the cost of bonding.

In addition to the above, several governmental bodies across the country have worked with local banking and other financial institutions to create bonding programs underwritten by the local government. A key to the success of such programs is establishing a contractor performance monitoring function to provide an early warning to any problems being encountered by covered contractors. The monitors are empowered to mobilize necessary assistance to ensure completion of the work and to minimize financial and other risk to the underwriter.

WRAP-UP INSURANCE

This represents an approach to affording all contractors the necessary insurance to perform public work, while guaranteeing the owner that needed insurance coverage is in place in all critical areas of contracting. Under a wrap-up insurance plan, the owner establishes a subsidiary organization,

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usually made up of a consortium of insurance brokers. Insurers are normally eager to compete for this business, and will offer competitive rates to secure it. The arrangement also represents an excellent opportunity to involve M/WBEs in this business.

Once in place, the owner offers blanket insurance coverage to all of its contractors through the wrap-up program. Bidders and subbidders benefit, as the insurance has been secured. They do not have to worry about securing insurance or paying for it. Additionally, as a participant in a wrap-up insurance program, bidders and subbidders' premiums are reduced. The owner benefits through lower bid prices and by buying lower cost coverage through the consortium because of the large group insured. In addition, the administrative arm of the consortium can be required to manage the insurance requirements (e.g., ensuring that all policies are executed before commencing work) as well as the owner's construction safety program. The latter activity is a natural extension of the consortium's interest since safety awareness and good practice lowers the instance and cost of claims.

11.4 Enhancing the Minority Business Enterprise Program

Whether MDC employs race/gender-conscious or race/gender-neutral means to achieving M/WBE participation, M³ Consulting suggests that MDC consider focusing its priorities in the following areas:

A. Develop an M/WBE Policy

An M/WBE policy should reflect MDC leadership's commitment to the utilization of M/WBEs in MDC procurement and contracting opportunities. This commitment can be reflected in race/gender-conscious and/or race/gender-neutral policies. Proper accountability and reporting measures should be implemented to ensure that the CEO and Board have access to sufficient information to hold the Procurement Services Unit, Supplier Diversity, PMU and other MDC departments accountable for the achievement of leadership's commitment to M/WBE participation. Accordingly, an M/WBE policy should be established to:

- Identify overall goals for M/WBE participation;

- Ensure that transparency and accountability measures are incorporated into the M/WBE policy, such that the CEO and Board can sufficiently oversee the implementation of its policy, without imposing undue restrictions on departmental operations; and,
- Ensure that Procurement, PMU and Supplier Diversity develop standard operating procedures for all MDC departments that support the implementation of M/WBE policy. Standard operating procedures should include good faith efforts, standardized forms and databases for reporting. They should also address the six essential elements of a M/WBE program which are provided below.

Figure 11.1: M³ Consulting Six Essential M/WBE Program Elements

1	Outreach and Matchmaking	→efforts to increase the business community's awareness of an entity's procurement and contract opportunities and match M/WBEs to specific contract opportunities
2	Certification	→eligibility criteria for M/WBE participants
3	Technical Assistance	→informational and strategic support of businesses to meet the entity's M/WBE plan objectives
4	M/WBE Inclusion in Bid Opportunities	→the mechanism by which the entity assures that material consideration of M/WBE participation is given in the award of a contract
5	Contract Award Review	→ensuring adherence to M/WBE plan goals on all contracts after execution of the contract
6	Organizational Performance Evaluation	→a comparison of performance results to the entity's goals to determine policy successes, strengths and weaknesses, and performance improvement areas

Source: M³ Consulting

On large construction and development projects, opportunities for M/WBE participation should be identified within the construct of the phases of a development project. The seven phases of a development project and possible opportunities (list intended to provide examples, not be exhaustive) at each stage are:

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- Planning—opportunities exist in the acquisition of right-a-way; acquisition of property; legal services; environmental studies; land use studies; geotechnical studies and feasibility studies.
- Financing—opportunities may include investment banking, lobbyists, grant proposers, and legal services.
- Designing—design services include both architectural and engineering services, with other additional services that may be required such as geotechnical services, or environmental services. Design services may also include the development of a bulk purchasing plan.
- Constructing—these services include construction management, prime contractor/subcontractor activities including tradesmen and soil testing.
- Equipping—involves the furnishing of facilities and buildings.
- Maintaining—involves the maintenance of equipment, facilities and buildings.
- Operating—covers the provision of those services that contribute to the overall continued function of the facility and buildings.

MDC must also develop monitoring and reporting processes sufficient to ensure that the flexible and aspirational goal consistent with *Croson* is being achieved in a manner that can be reported to MDC leadership.

B. Focusing Minority Business Program Operations: Matchmaking and Monitoring

Matchmaking is fundamental to a successful minority and women business program, whether race/gender-conscious or race/gender-neutral. Central to matchmaking is advance notice of the universe of upcoming contracting opportunities. Optimizing forecasting and budgeting was discussed previously on p. XI-335. The Procurement Services Unit, Supplier Diversity, PMU and departments with buying authority then work with M/WBEs, White male-owned prime contractors (including Construction Managers), and MDC's buyers and others involved in the purchasing process to facilitate involvement of M/WBEs on MDC projects at the prime and/or subcontractor level. As such, the role of matchmaking will need to take on some level of significance. Below is more detail on the definition and operations of a matchmaking program.

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- *Matchmaking*—Creating productive relationships between MDC, M/WBEs and White male-owned firms can encourage the three groups to work more closely together on MDC's contracting opportunities. For the most part, increasing M/WBE participation is a function of relationship building. As such, the Procurement Services Unit, PMU, Supplier Diversity and departments with buying authority should be involved in two levels of matchmaking:
 - *Internal Matchmaking*—This activity focuses on ensuring that M/WBEs have the opportunity to sell their goods and services directly to MDC on prime contract opportunities. The Procurement Services Unit, PMU, Supplier Diversity and departments with buying authority should review forecasted activity and bids for viable opportunities for M/WBEs and inform M/WBEs of those opportunities. Matchmaking at this level extends beyond conducting mere workshops and vendor trade shows; it involves ensuring that M/WBEs have the opportunity to dialogue directly with MDC officials who have buying authority on specific opportunities. Conducting internal matchmaking requires MDC Procurement Services Unit, PMU and Supplier Diversity and departments with buying authority to fully integrate M/WBE activity into the purchasing process.
 - *External Matchmaking*—Bringing White male-owned firms and M/WBEs together on specific MDC projects where opportunities are available assists MDC in ensuring that M/WBEs have the opportunity to sell their services to prime contractors. Matchmaking sessions should occur concurrent with the release of contract forecasts to give M/WBEs and non-M/WBEs the maximum time available to create relationships, determine credentials and capabilities and prepare adequate bids. The Procurement Services Unit, PMU, Supplier Diversity and departments with buying authority, and MDC's Program Managers and General Contractors should be actively involved in this process.

Matchmaking programs must be tailored to the dynamics of a particular procurement operation. We emphasize that the matchmaking session is not for the purpose of steering vendors to buyers. MDC Project Managers and Supplier Diversity will be required to have detailed knowledge of the capabilities of certified M/WBEs in order to fully maximize the matchmaking process. The

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matchmaking session can include only M/WBEs, White male-owned firms or both. The matching sessions should include the following:

- To the degree possible, coordinate matchmaking sessions with forecast release and/or solicitation schedule. In many instances, matchmaking sessions follow pre-bid conferences. Matchmaking sessions can also be utilized to identify available firms for particular projects in planning stages. While not called matching sessions, the federal government often allows vendors to provide qualification information in pre-bid research to determine the level of competitiveness it can expect once the bid is let.
- Focus on particular commodity areas in the five industry categories, such that vendors specializing in particular goods and services will have the opportunity to meet with buyers responsible for those commodities.
- Buyers should have the procurement projections such that they can discuss specific upcoming opportunities and the requirements and procurement mechanisms that will be utilized to procure the good or service. This specificity is the key factor that distinguishes matchmaking sessions from outreach and vendor fairs.
- Identify informal and formal opportunities during the matching session so that vendors can determine where they have the greatest likelihood of successfully marketing to MDC.

Matchmaking at the subcontractor level. Matchmaking takes on a team building dynamic at this level. Prime contractors/consultants have the opportunity to identify potential M/WBE team members on upcoming opportunities to be let by MDC. To be most effective, Project Managers and Supplier Diversity will be required to have an in-depth knowledge of the capabilities of the pool of certified M/WBEs. Supplier Diversity also needs to have strong business development skills. *The matchmaking session* should focus on a particular project, either in planning or prior to bid. It is critical for success that matchmaking occur as early in the planning process as possible. Prime contractors, construction managers and large consultants' planning process begin well in advance of the actual Invitation to Bid or Request for Proposal.¹⁰⁹ As such, at the time of bid letting, prime contractors and contract managers have already identified team members to address commercially

¹⁰⁹ In fact, a growing sector of companies now specialize in tracking projects for their clients at the federal, state and local levels from initial planning phases through project close-out or project renewal. Information is gathered by direct contact with procurement personnel and user departments in public sector agencies to determine project status. These services are costly for small firms and provide significant information advantages to firms that can afford the services.

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viable opportunities at the subcontractor level that build a firm's capacity and portfolio. Conformance to M/WBE requirements often times does not produce quality and high level M/WBE participation, because these firms are an "appendage" to the team already developed.

Contract Monitoring. It is important that the Procurement Services Unit and Supplier Diversity, along with engineers and inspectors, have the capacity to perform contract and on-site reviews to ensure that prime contractors and MDC employees with buying authority are utilizing M/WBEs to the degree outlined in contract documents. Contract monitoring also allows Supplier Diversity and the Procurement Services Unit to more effectively intervene in problem situations that may hamper a relationship between the M/WBEs and White male prime contractors/consultants (e.g., discrimination, slow payment, and M/WBE need for management and technical assistance).

C. Maximizing the Utilization of Race/Gender-Neutral Goal-Based Programs

MDC should develop a Small, Local Business Program. This program could provide MDC with a greater opportunity to build capacity of small firms through set-asides and other targeted mechanisms that are not available under race/gender-conscious programs. As such, the programs would have distinct purposes and therefore would be integrated into the procurement process differently:

- M/WBE Program—designed to address disparity and/or discrimination in contracting within the U.S. Supreme Court requirements under *Richmond v. Croson*.
- Small, Local Business Program—designed to build capacity at the small dollar level or below an identified dollar value and provide previously excluded firms access to MDC contract opportunities.

The programs can be tailored to small disadvantaged businesses, as long as the definition of disadvantage does not include a presumption of disadvantage because of race and/or gender.

d. Sunset Plan

If MDC decides to utilize race/gender-conscious goals, it should establish a sunset date at the outset of the implementation of those goals. Once MDC establishes a Sunset date for its M/WBE Program,

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a Sunset Plan should be implemented. A Sunset Plan facilitates the maintenance and increase of M/WBE participation levels in a race/gender-neutral environment, by preparing the organization over the course of the race/gender-conscious program for a race/gender-neutral environment. The Sunset Plan should contain program elements that must be achieved to create a race/gender-neutral environment, as well as evaluation mechanisms to determine whether race/gender-conscious programs should continue to be relied upon in certain areas. Elements of the Sunset Plan should include:

- Evaluation mechanisms for measuring senior management commitment to M/WBE participation in MDC's contracting opportunities;
- Evaluation mechanisms for measuring achievement of established targets, goals or benchmarking by employees with buying authority;
- A plan of action for ensuring that M/WBE participation objectives have been integrated into overall Purchasing operations;
- A plan for reviewing and measuring the viability of the opportunities and contracts available to M/WBEs;
- A database for measuring availability and utilization of M/WBEs, including an evaluation or measurement process to be conducted each quarter;
- Development of MDC's matchmaking and outreach program to address the needs of M/WBEs in a race/gender-neutral environment;
- A plan of action for ensuring that certain types of purchases are not concentrated among a few vendors or contractors (this may require addressing employees' purchasing habits, adjusting purchasing methods, or redesigning the entire process to ensure that MDC promotes competitive contracting, as opposed to concentrated contracting);
- A plan for addressing private sector discrimination;

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- Development of an operational viability analysis¹¹⁰ for all vendors; and,
- Criteria for evaluating the successful inclusion of M/WBEs in MDC's contract opportunities in a race/gender-neutral environment, in order to determine whether race/gender-conscious measures need to be utilized.

NON-DISCRIMINATION POLICY

M³ Consulting recommends that MDC implement a Nondiscrimination Policy. Procedures should be developed which impose penalties on MDC employees and prime contractors for practices that involve disparate treatment and disparate impact on women and minority contractors. Critically important to enforcement of nondiscrimination policies is active investigation to determine whether discrimination is occurring, as opposed to a passive process, which depends on the filing of a complaint.

It is noteworthy that strong nondiscrimination programs engender significant support from proponents and opponents of race/gender-conscious programs. In fact, the Southeastern Legal

¹¹⁰ Emphasis should be placed on conducting an operational viability analysis of M/WBEs so that respective strengths and weaknesses can be assessed, technical assistance can be tailored to individual M/WBE needs, and realistic matchmaking may be undertaken.

An operational viability analysis of an M/WBE may be undertaken at any stage, pre-contract award or post-award. The M/WBE entity's interest in operating as a prime contractor, a subcontractor, or as a vendor or supplier can be determined. Information such as form of business, nature of business, number of years in business, ownership percentages, capitalization, etc. can be used to establish an opinion of each firm's interest, capacity, and growth potential. Furthermore, direct interaction with each M/WBE can occur so that technical assistance needs are identified, such as:

- Accounting/bookkeeping
- Bid preparation/estimating
- Workforce sources/recruiting needs
- Claim preparation
- Office or contract management
- Bonding and insurance
- Purchasing/sources of supply
- Legal assistance
- Understanding MDC's contract terms and conditions
- Contract payments
- Release of retainage
- Mobilization
- Sources of credit/financing

Through an operational viability analysis, an accurate determination can be made of each M/WBE firm's strengths, weaknesses, and immediate needs, so that local governments can more realistically set program objectives, deliver technical assistance, and advocate the involvement of M/WBEs in contracting activities.

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Foundation, which has initiated litigation against several public sector M/WBE Programs, proposed a strong nondiscrimination plan as part of suggested race-neutral alternatives. The key to the success of this mechanism, however, is *implementation*. The following represents the essential components of an effective nondiscrimination plan:

- As important as ensuring that vendors are not discriminating is ensuring that employees are not discriminating in their purchasing activities. Monitoring and evaluation techniques should be established to ensure that employees with buying authority, in particular, are achieving diversity in purchasing and utilizing sound business and purchasing techniques.
- It is important that vendors doing business with the MDC have the opportunity to have their complaints heard, investigated and ruled upon, particularly in a race/gender-neutral environment, where MDC is dependent upon contractors to cooperate in their business dealings across racial and gender lines. In establishing an adjudicatory body, there would be two components, an investigative arm and a hearing arm.
- MDC should develop a certification of nondiscrimination to be completed by all eligible bidders.¹¹¹ This will ensure that MDC is not involved in any discriminatory practices in the private sector.
- A tracking system should be developed which allows MDC to measure overall participation levels in federal, local, and private sectors, by vendors doing business or attempting to do business with MDC.
- MDC should develop penalties for discrimination, (i.e., barring a contractor found to have discriminated against M/WBEs from bidding with MDC for an established period of time).
- It is important to note that many large firms that must meet federal, state and municipal requirements have established supplier diversity and workforce diversity programs for their firms. MDC should utilize this information to confirm a firm's commitment to the utilization of M/WBEs and minority and female employees.

¹¹¹ This process is supported by *Norwood v. Harrison*, 93 S.Ct. 2804 (1973), a U.S Supreme Court case relied upon heavily in *Croson*.

IDENTIFICATION OF RACE/GENDER-CONSCIOUS GOAL POSSIBILITIES

The actual setting of M/WBE goals is a policy decision that requires action by MDC. MDC can establish overall M/WBE policy goals that then may be used by employees with buying authority. MDC can then develop an action plan that specifies procedure, program and goal improvements that will be made and the timeline allocated for those tasks.

It is important to emphasize an annual overall goal simply establishes a target level of M/WBE participation desired by MDC. The existence of established goals is an effective mechanism for establishing objectives for MDC and in achieving the desired outcome, when effectively implemented. If operations are inflexible, it falls into a quota. The annual goal should be utilized by the MDC to periodically evaluate the effectiveness of its program and its project-specific efforts, as well as to gauge whether it is appropriate to increase or decrease the mix of more aggressive remedies.

In certain categories and for certain groups, race/gender-conscious means are supportable activities toward the achievement of established goals, based on the findings of statistically significant disparity. Those include:

Figure 11.2 Race/Gender-Conscious Means		
Construction	Non-professional Services	Goods & Supplies
African American	African American	Asian American
	Hispanic American	African American
	WBE	Hispanic American
		WBE

As significant disparity is eliminated in the above categories, the utilization of race/gender-neutral means in attaining the established goals should be increased. However, in all instances where race/gender-neutral means are utilized, if significant disparity re-emerges, then race/gender-conscious techniques can be utilized on a non-permanent basis to correct identified disparities.

Race/gender-neutral means should be utilized primarily for:

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Figure 11.3: Uses for Race/Gender-Neutral Means

A&E	Construction	Professional Services	Non-professional Services
Asian American	Asian American	Asian American	Asian American
African American	Hispanic American	African American	
Hispanic American	WBE	Hispanic American	
WBE		WBE	

GOAL-SETTING FORMULAS AND TECHNIQUES

Below, M³ Consulting provides MDC three methodologies for computing goals.

e. Algorithm Target (ATM) Methodology^{SM112}

The ATMSM formula, developed exclusively by M³ Consulting, allows entities to develop goals based on both market conditions (availability) and actual levels of participation by MDC (utilization). The ATMSM formula also allows MDC to forecast the necessary M/WBE participation levels to achieve the desired outcome, correcting for stated disparity, by an established date. This methodology has been designed to assist MDC to determine its goals through a realistic and statistically valid model.¹¹³

The calculation of ATMSM is a two-step process:

1. A weighted availability measure is developed by using Sum of the Year's Digits method which results in a higher amount of weight being given to an availability measure which is ranked higher or deemed more reliable or important than other weighted availability used to calculate an average. The following formula: $\{N \times (N + 1)\} / 2$, will calculate the sum of the number of availability measures being averaged.
2. This weighted availability measure is then used in the computation process identified below to establish the actual target goal.

¹¹² The ATM formula can be installed in MDC's Supplier Diversity Program, Procurement Services Unit or other designated tracking system for easy calculation.

¹¹³ ATM operates most realistically for an organization over time. The ATM is designed to correct for any disparity found. As such, established goals will be higher than availability, if disparity exists. Thus, if an organization attempts to correct for this disparity in a very short period of time, the goal calculations will result in very high numerical percentages. Actual calculations would be based on specific availability and utilization data from MDC.

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ATMSM Formula

For Computing Annual Targets for Minority and Female Participation

$$ATM = \frac{G_p(TCE_t) - TME_p}{T - P} \div TE_a$$

Where

G_p = target goal for M/WBE participation. When the policy goal is used to bring utilization in line with availability, then

TCE_t = total cumulative expenditure at time frame

TE_a = total annual MDC expenditure

TME_p = total minority cumulative expenditure at present

T = time frame year

P = present year

As indicated by the sample table below, the ATMSM formula allows MDC the maximum level of options in setting its targets or goal:

- Targets can be established based on a preferred availability measures;
- Targets can be established based on a weighted average of all availability measures; and,
- Targets can be established based on availability and utilization data, as well as a desired program length.

Further, because the ATM formula actually corrects for identified disparity, the calculation automatically identifies 1) the level of utilization to be achieved to make the correction, 2) the level of utilization to be achieved through race/gender-conscious means (actual availability) and 3) the level of utilization to be achieved through race/gender-neutral means (ATM target minus actual

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availability). This is reflected in a sample table on the next page. *These calculations are not based on MDC's data.*

Table E.1: ATM Formula Matrix						
Policy Goal/Program Target						
Total Utilization-Construction-Relevant Market						
African-American	Availability					
	Weighted	RWASM	Public Availability SM	D&B	Reed	Census
Program Length	5.3%	5.4%	2.4%	12.4%	1.5%	2.6%
1	32.4%	33.1%	12.1%	82.1%	5.8%	13.5%
3	14.3%	14.6%	5.6%	35.6%	2.9%	6.2%
5	10.7%	10.9%	4.3%	26.3%	2.4%	4.8%
7	9.2%	9.4%	3.8%	22.4%	2.1%	4.2%
9	8.3%	8.5%	3.5%	20.1%	2.0%	3.8%
10	8.0%	8.2%	3.4%	19.4%	1.9%	3.7%

Source: M³ Consulting

Note: Data in table is for illustration purposes only, and not from the MDC's databases.

f. Benchmarking

A M/WBE benchmark is simply a percentage level of purchasing tied to some percentage of M/WBE availability. A properly crafted benchmarking program exhausts race/gender-neutral alternatives in the first instance to achieve the benchmarks and employs race/gender-conscious goals, if at all, in a limited, moderate and occasional manner.

A benchmarking program also provides for a neutral mechanism for transition to a purely race/gender-neutral purchasing environment. A benchmark is not a quota, but serves as a function in the annual tracking of a government's performance. The benchmark is presented as a range of percentage goals by purchasing category by race/gender. These ranges would be applied, at the contract level, relative to an overall dollar goal for the governmental entity in a particular purchasing category.

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**Table E.2: Sample M/WBE Benchmark Ranges based on Availability
(Not based on MDC Data)**

Purchasing Category	M/WBE Availability (RWAS ^M) (%)	Proposed Goal Range (%)
A&E	28.99	25–31%
Construction	26.93	23–29%
Professional Services	15.14	12–18%
Non-Professional Services	17.79	14–20%
Goods	6.87	3–9 %

Source: M³ Consulting

C. Project-by-Project Goals

While MDC may utilize each or a combination of the goal setting methods for a given period, it is important to note that embedded within this overall goal should exist a flexible project-by-project goal mechanism. The administrators of any particular goal must carefully monitor the relationship between the nature of work for a given project and the availability of M/WBEs. This implies that MDC Departments must examine each project for its 'work content' and determine a set of skills needed for completion, not merely use the standard capacity measures, such as years of experience or bonding. This is because capacity is an elastic measure that can be increased or decreased for a firm based on needs. If M/WBEs exist that have the core competencies of this predetermined 'content examination' (commercially viable M/WBE participation), project goals may be set higher on these projects than that of the annual goals for the particular procurement category. By a similar reasoning, when such firms do not exist, the project goals may be lowered. MDC departments must, in other words, determine the correlation between the 'content or needs' of a project and the availability of M/WBEs and adjust goals accordingly. These project goals would be supported by proper documentation, such that the department is positioned to report on its overall goal achievement.

Therefore, hypothetically, while the overall goal may be set at 12 percent, six different projects may have goals as follows:

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- Project I: 12.5 percent
- Project II: 31 percent
- Project III: 15 percent
- Project IV: 2.5 percent
- Project V: 8.5 percent
- Project VI: 2.5 percent.

This would result in an overall goal of 12 percent, but be different at the project level. This project-by-project goal must be used on an on-going basis to achieve an overall goal and not the other way around. In other words, if the first four projects were high enough to meet the goal of 12 percent, then the next two projects should not automatically have zero goals. The overall goal should be a *minimum achievable standard* for M/WBE inclusion and not a maximum barometer of exclusion.

Commercial viability assures that each transaction will be consistent with the generally accepted practices in the marketplace for the procurement of similar goods and services. The issue of commercial viability includes three components: appropriate work; available work; and workload consistent with capacity. An M/WBE that is engaged in commercially viable work is:

- Practicing in its usual trade or business areas where it has knowledge and experience;
- Performing work available to it in the usual trade or business area and in areas in which it has some related or previous experience that it seeks to build upon or expand; and,
- Performing work that recognizes the limits of size and the business risk involved in the contract, and that it is proportionate to the capacity of a business to provide labor and materials.

g. Non-Scoring Programs

The Federal government and some other governmental agencies have moved to a non-scoring system of evaluating M/WBE participation. This non-scoring system appears to be most in line with the tenets of the *Gratz* and *Grutter* cases.

Federal agencies considering Small Disadvantaged Business (SDB) participation can utilize scored or non-scored evaluation techniques for consideration of SDB participation on an offeror's proposal. If

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an agency decides to utilize non-scored evaluation techniques, then the agency will take into consideration the commitment and realism of the offeror's SDB participation targets in determining the merits of the offeror's proposal and in selecting the offeror who provides the best value to the agency. The agency is seeking to determine whether the offeror has demonstrated a commitment to use SDBs for the work that it intends to perform. The SDB targets must be evaluated before the determination of the competitive range. The subfactors considered for SDB participation must still be listed. These are provided in FAR 19.1202-3 and are as follows:

- Extent to which SDB concerns are specifically identified;
- Extent of commitment to use SDB concerns;
- Complexity and variety of the work SDB concerns are to perform;
- Realism of the proposal;
- Past performance of offerors in complying with subcontracting plan goals for SDB concerns and monetary targets for SDB participation; and,
- Extent of participation of SDB concerns in terms of the value of the total acquisition.

h. Race-Neutral Means to Achieve Goals/Targets

MDC should first exhaust all race/gender-neutral means to achieve any established target, goal or benchmark. Race/gender-neutral means include (1) purchasing adjustments, (2) prohibition of discrimination in purchasing, and (3) matchmaking. These elements are discussed in detail earlier in this chapter.

i. Race/Gender-Conscious Tools

Race/gender-conscious contract goals should be subject to a variety of limitations:

- Race/gender-conscious goals, where allowable at MDC, should not be applied to every contract across all purchasing types.
- Race/gender-conscious goals should generally be "good faith efforts" subject to waivers.
- Race/gender-conscious goals should be reviewed by the Procurement Services Unit and Supplier Diversity to ensure that such goals do not disproportionately fall on one class of White male-owned contractors or subcontractors. For example, awards of all painting

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subcontracts to minority firms would impose an undue burden on White male-owned painting subcontractors.

- Race/gender-conscious goals (in purchasing) for subcontracting should apply to both White male-owned and M/WBE prime contractors.
- Firms eligible to benefit from race/gender-conscious goals at MDC should be subject to graduation provisions.
- MDC's race/gender-conscious elements should be subject to annual review and sunset provisions.

11.5 Summary

Miller³ Consulting, Inc. found that MDC purchasing activities suggest that M/WBEs continue to have some difficulties obtaining significant contracts with MDC. In submitting specific findings within the Disparity Study for MDC, M³ Consulting formulated recommendations that allow MDC to rely upon race/gender-conscious means when necessary to address entrenched disparities, while also addressing M/WBE participation through race/gender-neutral efforts. Our economic and statistical utilization analyses could serve as part of the policy and procedure-making decisions needed to ensure enhanced M/WBE participation in MDC's purchasing processes.
