



Cook County Forest Preserve District DISPARITY STUDY 2015



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Acknowledgements

We wish to express special thanks to the following individuals who assisted in the conduct of the study: Jacqueline Gomez, Lisa Alexander, and Patrice Daniels.

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I. EXECUTIVE SUMMARY

Colette Holt & Associates was retained by Cook County, Illinois (“County”), the Cook County Hospital Systems (“CCHS”), and the Forest Preserve District of Cook County (“District”) to perform a study of possible disparities on the basis of race and gender in access to their prime contracting and associated subcontracting opportunities. Separate reports were produced for the County and for CCHS. We analyzed purchase order and contract data for from July 2009 through July 2014. We explored whether Minority-Owned Business Enterprises (“MBEs”) and Women-Owned Business Enterprises (“WBEs”) (collectively, “M/WBEs”) have equal access to District contracts, and if not, what remedies might be appropriate to redress the barriers created by race or gender discrimination.

A. Summary of Constitutional Standards

To be effective, enforceable, and legally defensible, a race-based program for public contracts must meet the judicial test of constitutional “strict scrutiny.” Strict scrutiny is the highest level of judicial review and consists of two elements:

- The government must establish its “compelling interest” in remedying race discrimination by current “strong evidence” of the persistence of discrimination. Such evidence may consist of the entity’s “passive participation” in a system of racial exclusion.
- Any remedies adopted must be “narrowly tailored” to that discrimination, that is, the program must be directed at the types and depth of discrimination identified.

The compelling interest prong has been met through two types of proof:

- Statistical evidence of the underutilization of minority firms by the agency and/or throughout the agency’s geographic and industry market area compared to their availability in the market area. These are disparity indices, comparable to the type of “disparate impact” analysis used in employment discrimination cases.
- Anecdotal evidence of race-based barriers to the full and fair participation of minority firms in the market area and in seeking contracts with the agency, comparable to the “disparate treatment” analysis used in employment discrimination cases. Anecdotal data can consist of interviews, surveys, public hearings, academic literature, judicial decisions, legislative reports, etc.

The narrow tailoring requirement has been met through the satisfaction of five factors to ensure that the remedy “fits” the evidence:

- The efficacy of race-neutral remedies at overcoming identified discrimination.
- The relationship of numerical benchmarks for government spending to the availability of minority- and women-owned firms and to subcontracting goal setting procedures.
- The congruence between the remedies adopted and the beneficiaries of those remedies.
- Any adverse impact of the relief on third parties.
- The duration of the program.

In general, courts have subjected preferences for Women-Owned Business Enterprises (“WBEs”) to “intermediate scrutiny.” Gender-based classifications must be supported by an “exceedingly persuasive justification” and be “substantially related” to the objective. However, appellate courts, including the Seventh Circuit Court of Appeals, have applied strict scrutiny to the gender-based presumption of social disadvantage in reviewing the constitutionality of the DBE program.

Classifications not based on race, ethnicity, religion, national origin or gender are subject to the lesser standard of review of “rational basis” scrutiny, because the courts have held there are no equal protection implications under the Fourteenth Amendment for groups not subject to systemic discrimination. In contrast to strict scrutiny of government action directed towards persons of “suspect classifications” such as racial and ethnic minorities, rational basis means the governmental action must only be “rationally related” to a “legitimate” government interest. Thus, preferences for persons with disabilities, veterans, etc. may be enacted with vastly less evidence than race- or gender-based measures to combat historic discrimination.

To meet strict scrutiny, studies are conducted that gather the statistical and anecdotal evidence necessary to support the use of race- and gender-conscious measures to combat discrimination. These are commonly referred to as “disparity studies” because they analyze any disparities between the opportunities and experiences of minority- and women-owned firms and their actual utilization compared to white male-owned businesses. Quality studies also examine the elements of the agency’s programs to determine whether they are sufficiently narrowly tailored. Finally, a study should provide recommendations regarding implementing best practices to reduce discriminatory barriers, whether there exists a strong basis for the use of race- and gender-conscious measures, and if so, how to narrowly tailor those measures.

B. Study Methodology and Data

The methodology for this study embodies the constitutional principles of *City of Richmond v. Croson*, as well as best practices for designing race-and gender-conscious contracting programs. Our approach has been specifically upheld by courts, including the federal courts in Illinois. It is also the approach developed by Ms. Holt for the National Academy of Sciences that is now the recommended standard for designing legally defensible disparity studies for state departments of transportation.

To address the requirements of strict constitutional scrutiny applicable to M/WBE programs, we examined quantitative and qualitative evidence. We determined the availability of M/WBEs in the District's geographic and industry market area and whether there is a disparity between the availability of M/WBEs and the District's utilization of these firms. We further analyzed disparities in the wider economy, where affirmative action is rarely practiced, to evaluate whether barriers continue to impede opportunities for minorities and women when remedial intervention is not imposed. We gathered anecdotal data on M/WBEs through focus groups with business owners and stakeholders. We also evaluated the M/WBE program and race- and gender-neutral policies and procedures for their effectiveness and conformance with constitutional parameters and national best practices for M/WBE programs.

Based on the results of these extensive analyses, we make recommendations about whether a constitutional basis exists for the District to continue race- and gender-based contracting remedies, and if so, what those efforts might be.

C. Study Findings

1. The District's M/WBE Program

a. Program Elements

The District adopted its M/WBE Program in 2012. It is administered by the Contract Compliance Administrator, in conjunction with the Purchasing Agent and Using Departments. The District has entered into an intergovernmental agreement with Cook County to provide the assistance of the County's Contract Compliance Director and its Office of Contract Compliance. The District accepts M/WBE certifications from the County and applies similar eligibility criteria.

The District's Ordinance lists several race- and gender-neutral measures it may use to meet its overall annual goals of 25 percent participation by MBEs and 10 percent participation by WBEs for non-construction contracts; 35 percent combined M/WBE participation for professional services and consulting services; and 24 percent for MBEs and 10 percent for WBEs for construction contracts. Contract-specific goals based on the availability of M/WBEs to perform the

scopes of the particular project are to be set to achieve the annual goals. Goals are not operate as quotas.

The Program's administrative standards and procedures are largely modeled on the Disadvantaged Business Enterprise ("DBE") Program for U.S. Department of Transportation contracts, contained in 49 C.F.R. Part 26. These include:

- The criteria for determining whether the firm is owned, managed and controlled by a socially and economically disadvantaged minority group member or a woman and is independent and not an affiliate of another business.
- Standards for evaluating joint venture arrangements involving certified firms.
- Challenges to a firm's eligibility for the Program.
- Counting the participation of certified firms, including as regular dealers and suppliers.
- Standards to determine whether the certified firm is performing a commercially useful function.
- Criteria to evaluate whether a bidder that failed to meet the goal made good faith efforts to do so and is therefore entitled to a waiver or reduction of the goal.
- Standards for substituting a certified firm during contract performance.

All compliance documents, including signed forms from M/WBEs and any good faith efforts documentation, must be submitted with the bid or proposal to be considered responsive to the solicitation.

Some provisions differ between non-construction and construction contracts, reflected in the Ordinance's two Divisions. For example, the dollars paid to suppliers are counted differently, there are no comparable provisions governing the substitution of certified firms, etc.. There is also no sanction provision in the non-construction section of the Ordinance. Both Divisions are to sunset on June 30, 2016.

b. Interviews

We interviewed 83 individuals about their experiences with the three agencies' M/WBE programs and solicited their suggestions for changes. Topics included:

- Access to information and networks: While most participants were able to access information on upcoming opportunities, several M/WBEs found it

difficult to network with the appropriate District personnel in the using departments. Outreach for specific larger projects was one approach to facilitating networking,

- **Payments:** Slow payment from the agencies was a major problem reported by prime vendor and subcontractors, majority firms and M/WBEs alike. Small firms were often discouraged from working on agency jobs. Information about payment the status of individual contracts was difficult to obtain. Even large firms were frustrated by the delays, and often pay M/WBEs even when they are awaiting payment from the District and other agencies. Change orders after contract award exacerbate payment delays. The holding of retention until the contract is closed out– often as high as 10 percent of the total contract price– especially burdens smaller firms.
- **Insurance requirements:** onerous insurance requirements burden small firms seeking work not only as prime vendors but also as subcontractors because of flow down provisions in the prime contractor’s contract.
- **Meeting M/WBE contract goals:** Most prime contractors and consultants reported that they were able to meet the goals. Projects involving more specialized work or that are larger and more complex present special challenges. More outreach efforts were urged by prime contractors and M/WBEs to facilitate introductions, exchange information and promote relationships. Many general contractors felt that they would not receive a waiver if they were unable to meet the goal despite their good faith efforts to do so. There was strong consensus that the agencies should set goals on a contract-by-contract basis rather than generally applying the same goals regardless of the scopes of work of the project. Requiring all compliance information with the bid was seen as strangling general contractors’ abilities to work with new M/WBEs or fully explore the capabilities of M/WBEs. A somewhat longer period to submit M/WBE compliance paperwork was urged to increase opportunities for M/WBEs and lower prices to the taxpayers. The use of lump sum, low bid procurement methods makes it more difficult to meet goals and be the low bidder. Alternative delivery methods such as construction manager, construction manager at risk, design-build, etc., were recommended to ease these pressures.
- **Monitoring of compliance with MWBE contractual obligations:** Several M/WBE subcontractors reported that there is insufficient monitoring of the prime vendor’s compliance with its M/WBE contractual commitments.
- **Mentor-protégé relationships:** There was broad support among M/WBEs and non-M/WBEs for providing technical assistance and other resources

to increase M/WBEs' capacities. Some general contractors provide informal supportive services to M/WBE subcontractors. Several prime contractors and consultants reported good experiences with mentor protégé programs for other agencies, such as for the Illinois Tollway and the Illinois Department of Transportation.

2. The District's Industry and Geographic Markets

The courts require that a local agency limit its race-based remedial program to firms doing business in its geographic and industry markets. We therefore examined a sample of approximately \$27 million of District spending to determine empirically the market areas.

We applied a "90/90/90" rule, whereby we analyzed North American Industry Classification System ("NAICS") codes that cover over 90 percent of the District's total contract dollar spend; over 90 percent of the District's prime contract dollar spend; and over 90 percent of the District's subcontract dollar spend. We took this approach so that we could be assured that we provide an in depth picture of the agency's activities. Table A presents the distribution of contract dollars across all industry sectors. Chapter IV provides tables disaggregated by dollars paid to prime contractors and dollars paid to subcontractors.

Table A: NAICS Code Distribution of Contract Dollars, All Sectors

NAICS	NAICS Code Description	PCT Total Contract Dollars	Cumulative PCT Total Contract Dollars
221122	Electric Power Distribution	34.07%	34.07%
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	14.20%	48.27%
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	11.57%	59.83%
238210	Electrical Contractors and Other Wiring Installation Contractors	10.81%	70.64%
324110	Petroleum Refineries	5.26%	75.90%
237310	Highway, Street, and Bridge Construction	3.38%	79.28%
238220	Plumbing, Heating, and Air-Conditioning Contractors	2.34%	81.63%
561730	Landscaping Services	2.15%	83.78%
541620	Environmental Consulting Services	2.03%	85.81%
561621	Security Systems Services (except Locksmiths)	1.99%	87.80%

NAICS	NAICS Code Description	PCT Total Contract Dollars	Cumulative PCT Total Contract Dollars
236220	Commercial and Institutional Building Construction	1.69%	89.49%
541330	Engineering Services	1.61%	91.09%
TOTAL			100.0%

Source: CHA analysis of District data.

We next determined the locations of firms in these NAICS codes to establish the industries in which the District purchases. We applied the rule of thumb of identifying the firm locations that account for at least 75 percent of contract and subcontract dollar payments in the contract data file. Location was determined by ZIP code as listed in the file and aggregated into counties as the geographic unit.

Spending in Illinois accounted for 74.77% of all contract dollars paid in the product market. Table B presents data on how the contract dollars were spent across Illinois counties.

Table B: Distribution of Contracts in the District's Product Market within Illinois, by County

County	PCT of Total Contract Dollars Paid		County	PCT of Total Contract Dollars Paid
Cook	72.007%		Winnebago	0.360%
Lake	23.508%		McHenry	0.049%
Will	2.895%		Dekalb	0.044%
Grundy	0.555%		Kane	0.026%
Dupage	0.551%		Kendall	0.004%
			TOTAL	100.00%

Source: CHA analysis of District data.

3. The District's Utilization of M/WBEs in Its Market Areas

The next step was to determine the dollar value of the District's utilization of M/WBEs in its market area constrained by geography and industry sector, as measured by payments to prime firms and associated subcontractors and disaggregated by race and gender. Because the District lacked full records for payments to subcontractors other than firms certified as M/WBEs, we contacted the prime vendors to request that they describe in detail their contract and associated subcontracts, including race, gender and dollar amount paid to date.

We further developed a Master M/WBE Directory based upon lists solicited from dozens of agencies and organizations. We used the results of this extensive data collection process to assign minority or woman status to the ownership of each firm in the analysis.

Table C presents the distribution of contract dollars by industry sectors by race and gender. Chapter IV provides detailed breakdowns of these results.

**Table C: Distribution of Contract Dollars by Race and Gender, All Sectors
(share of total dollars)**

NAICS	Black	Hispanic	Asian	Native American	White Women	Non-M/WBE
221122	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%
236220	0.00%	0.00%	10.58%	0.00%	0.00%	89.42%
237310	0.00%	0.36%	0.00%	0.00%	2.38%	97.26%
238210	34.13%	12.89%	0.00%	0.00%	0.28%	52.70%
238220	0.00%	0.00%	0.00%	0.00%	1.35%	98.65%
238910	0.00%	0.00%	5.15%	0.00%	0.00%	94.85%
324110	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%
423430	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%
423610	0.00%	0.52%	0.00%	0.00%	0.00%	99.48%
454310	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
541330	6.84%	6.90%	1.89%	0.00%	0.39%	83.99%
541620	0.00%	0.00%	0.00%	0.00%	0.21%	99.79%
561621	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
561730	0.00%	24.49%	6.34%	0.00%	7.72%	61.46%
Total	29.24%	3.07%	17.32%	0.00%	0.46%	49.90%

Source: CHA analysis of District data.

4. Availability of M/WBEs in the District’s Market

Using the “custom census” approach to estimating availability and the further assignment of race and gender using the Master Directory and misclassification adjustments, we determined the aggregated availability of M/WBEs, weighted by the District’s spending in its geographic and industry markets to be 21.2 percent. Table D presents the weighted availability data for various racial and gender categories.

**Table D: Aggregated Weighted Availability, All Sectors
(total dollars)**

NAICS	Black	Hispanic	Asian	Native American	White Women	M/WBE	Non-M/WBE	Total
TOTAL	5.7%	2.4%	3.3%	0.1%	9.8%	21.2%	78.7%	100.00%

Source: CHA analysis of District data; Hoovers; CHA Master Directory.

5. Disparity Analysis of the District’s Utilization of M/WBEs

We next compared the District’s utilization of M/WBEs with the availability of M/WBEs. This is known as the “disparity ratio” or “disparity index.” A disparity ratio measures the participation of a group in the government’s contracting opportunities by dividing that group’s utilization by the availability of that group, and multiplying that result by 100 percent. Courts have looked to disparity indices in determining whether strict scrutiny is satisfied. An index less than 100 percent indicates that a given group is being utilized less than would be expected based on its availability, and courts have adopted the Equal Employment Opportunity Commission’s “80 percent” rule that a ratio less than 80 percent presents a *prima facie* case of discrimination, referred to as “substantive” significance.¹

We determined that the disparity ratios were not substantively significant for any groups except Native Americans and White women.² Table E presents the results of this disparity analysis by demographic group for the District’s contracts.

¹ 29 C.F.R. § 1607.4(D) (“A selection rate for any race, sex, or ethnic group which is less than four-fifths (4/5) (or eighty percent) of the rate for the group with the highest rate will generally be regarded by the Federal enforcement agencies as evidence of adverse impact, while a greater than four-fifths rate will generally not be regarded by Federal enforcement agencies as evidence of adverse impact.”).

² For a discussion of the meaning of statistical significance and its role in the Study’s analysis, see Appendix D.

**Table E: Disparity Ratios by Demographic Group,
All Sectors**

	Disparity Ratio
Black	516.42%
Hispanic	130.09%
Asian	528.20%
Native American	0.00%
White Women	4.70%
M/WBE	235.83%
Non-M/WBE	63.37%

Source: CHA analysis of District data.

*Indicates substantive significance below the 0.80 level

6. Analysis of Race and Gender Disparities in the District's Economy

We explored the data and literature relevant to how discrimination in the District's market and throughout the wider economy affects the ability of minorities and women to fairly and fully engage in District contract opportunities. First, we analyzed the earnings of minorities and women relative to White men; the rates at which M/WBEs in Illinois form firms; and their earnings from those firms. Next, we summarized the literature on barriers to equal access to commercial credit. Finally, we summarized the literature on barriers to equal access to human capital. All three types of evidence have been found by the courts to be relevant and probative of whether a government will be a passive participant in overall marketplace discrimination without some type of affirmative interventions. Data and literature analyzed were the following:

- Data from the Census Bureau's Survey of Business Owners indicate very large disparities between M/WBE firms and non-M/WBE firms when examining the sales of all firms, the sales of employer firms (firms that employ at least one worker), or the payroll of employer firms.
- Data from the Census Bureau's American Community Survey ("ACS") indicate that Blacks, Hispanics, Native Americans, Asian/Pacific Islanders, Others, and White women were underutilized relative to White men. Controlling for other factors relevant to business outcomes, wages and business earnings were lower for these groups compared to White men. Data from the ACS further indicate that non-Whites and White women are less likely to form businesses compared to similarly situated White men.

- The literature on barriers to access to commercial credit and the development of human capital further reports that minorities continue to face constraints on their entrepreneurial success based on race. These constraints negatively impact the ability of firms to form, to grow, and to succeed.

Taken together with other evidence such as anecdotal data and the judicial findings regarding the Illinois and Chicago-area construction industry, this is the type of proof that addresses whether, in the absence of the District's strong remedial intervention in its market, it would be a passive participant in the discrimination systems found throughout Illinois. These economy-wide analyses are relevant and probative to whether the District may continue to employ narrowly tailored race- and gender-conscious measures to ensure equal opportunities to access its contracts and associated subcontracts.

7. Qualitative Evidence of Race and Gender Disparities in the District's Market

In addition to quantitative data, a disparity study should further explore anecdotal evidence of experiences with discrimination in contracting opportunities because such proof is relevant to the question of whether observed quantitative disparities are due to discrimination and not to some other non-discriminatory cause or causes. To gather this type of anecdotal evidence, we conducted six group interviews, totaling 83 individuals, and one stakeholders meeting. Most reported that while progress has been made in reducing barriers on the basis of race and gender, inequities remain significant obstacles to full and fair opportunities.

- Discriminatory attitudes and negative perceptions of competency: Many minority and women owners reported they experience discriminatory attitudes and negative assumptions about their competency, capacities and qualifications. They are often presumed to be less qualified and capable. Long established firms still had their capabilities and industry knowledge questioned. Further, many women stated they still face sexist attitudes and behaviors
- Access to industry and professional networks: Difficulties breaking into industry and professional networks were reported across many industries and by minorities and white females.
- Obtaining work on an equal basis: There was almost universal agreement among minority and women owners that the M/WBE program remains critical to reduce barriers to equal contracting opportunities and to open doors for District work. Without goals, M/WBEs believed they would be shut out of District contracts. Prime contract opportunities were especially difficult for M/WBEs to access. One commonly suggested approach was

setting aside some smaller contracts for bidding only by small firms on a race- and gender-neutral basis.

D. Recommendations

Based on the Study's findings, we make the following recommendations:

1. Augment Race- and Gender-Neutral Initiatives

- Implement an electronic contract data collection, monitoring and notification system. Functionality should include: full firm contact information; utilization plan capture; contract compliance, including submission and verification of payments; contract goal setting; outreach tools; spend analysis of informal purchases and contracts; integrated email and fax notifications; access by authorized users; export/import integration with existing systems; and access by authorized District staff, prime contractors, and subcontractors.
- Focus on reducing barriers to prime contract awards to small firms, including reducing experience, bonding and insurance requirements, where possible; "unbundling" large procurements into smaller contracts; and adopting a small local business setaside program element.
- Increase access to information and networks by using the new electronic system for notification of information regarding bids and proposals, payments to prime contractors, etc.. Conduct outreach events for specific larger projects.
- Reduce or eliminate retainage, by releasing retainage on a rolling basis for larger contracts; reducing the amount retained, to perhaps 5 percent or less; and not withholding retainage on smaller contracts.
- Increase compliance through discrimination and fraud reporting tools, by adding additional information to the District's website, in a prominent location, about how to file a discrimination complaint and how to report fraud or any questionable activity related to the Program, and setting up a program hotline for reporting.

2. Continue to Implement Narrowly Tailored Race- and Gender-Conscious Measures

- Use current data to set contracts goals. Implement a contract goal setting module to the current electronic system. Bid some contracts without goals to develop "unremediated markets" evidence of whether goals are needed to ensure parity.

- Encourage the use of new M/WBEs by prime contractors, by allowing a brief post-submission time to submit some of the compliance paperwork.
- Provide Program compliance training, with an emphasis on the process to seek a reduction or waiver of a contract goal.

3. Develop Performance Measures for Program Success

The District should develop quantitative performance measures for M/WBEs and overall success of the Program to evaluate its effectiveness in reducing the systemic barriers identified by the Study. Possible benchmarks might be:

- The number of bids or proposals and the dollar amount of the awards and the goal shortfall where the bidder submitted good faith efforts to meet the contract goal;
- The number and dollar amount of bids or proposals rejected as non-responsive for failure to make good faith efforts to meet the goal;
- The number, type and dollar amount of M/WBE substitutions during contract performance;
- Increased bidding by certified firms;
- Increased prime contract awards to certified firms;
- Increased “capacity” of certified firms as measured by bonding limits, size of jobs, profitability, etc.; and
- Increased variety in the industries in which M/WBEs are awarded prime contracts and subcontracts. s

4. Conduct regular Program reviews

The District has adopted a sunset date for the Ordinance. Data should be reviewed approximately every five to six years, to evaluate whether race- and gender-based barriers have been reduced such that affirmative efforts are no longer needed, and if such measures are necessary, to ensure that they remain narrowly tailored.

APPENDIX A

LEGAL STANDARDS FOR MINORITY- AND WOMEN-OWNED BUSINESS ENTERPRISE PROGRAMS

A. Summary of Constitutional Standards

To be effective, enforceable, and legally defensible, a race-based program for public contracts must meet the judicial test of constitutional “strict scrutiny.” Strict scrutiny is the highest level of judicial review and consists of two elements:

- The government must establish its “compelling interest” in remedying race discrimination by current “strong evidence” of the persistence of discrimination. Such evidence may consist of the entity’s “passive participation” in a system of racial exclusion.
- Any remedies adopted must be “narrowly tailored” to that discrimination, that is, the program must be directed at the types and depth of discrimination identified.³

The compelling interest prong has been met through two types of proof:

- Statistical evidence of the underutilization of minority firms by the agency and/or throughout the agency’s geographic and industry market area compared to their availability in the market area. These are disparity indices, comparable to the type of “disparate impact” analysis used in employment discrimination cases.
- Anecdotal evidence of race-based barriers to the full and fair participation of minority firms in the market area and in seeking contracts with the agency, comparable to the “disparate treatment” analysis used in employment discrimination cases.⁴ Anecdotal data can consist of interviews, surveys, public hearings, academic literature, judicial decisions, legislative reports, etc.

The narrow tailoring requirement has been met through the satisfaction of five factors to ensure that the remedy “fits” the evidence:

- The efficacy of race-neutral remedies at overcoming identified discrimination.

³ City of Richmond v. J.A. Croson Co., 488 U.S. 469 (1989).

⁴ *Id.* at 509.

- The relationship of numerical benchmarks for government spending to the availability of minority- and women-owned firms and to subcontracting goal setting procedures.
- The congruence between the remedies adopted and the beneficiaries of those remedies.
- Any adverse impact of the relief on third parties.
- The duration of the program.⁵

In *Adarand v. Peña*,⁶ the Supreme Court extended the analysis of strict scrutiny to race-based federal enactments such as the Disadvantaged Business Enterprise (“DBE”) program for federally-assisted transportation contracts. Just as in the local government context, the national government must have a compelling interest for the use of race and the remedies adopted must be narrowly tailored to the evidence relied upon.

In general, courts have subjected preferences for Women-Owned Business Enterprises (“WBEs”) to “intermediate scrutiny.” Gender-based classifications must be supported by an “exceedingly persuasive justification” and be “substantially related” to the objective.⁷ However, appellate courts, including the Seventh Circuit Court of Appeals, have applied strict scrutiny to the gender-based presumption of social disadvantage in reviewing the constitutionality of the DBE program.⁸ Therefore, we advise the District to evaluate gender-based remedies under the strict scrutiny standard.

Classifications not based on race, ethnicity, religion, national origin or gender are subject to the lesser standard of review of “rational basis” scrutiny, because the courts have held there are no equal protection implications under the Fourteenth Amendment for groups not subject to systemic discrimination.⁹ In contrast to strict scrutiny of government action directed towards persons of “suspect classifications” such as racial and ethnic minorities, rational basis means the governmental action must only be “rationally related” to a “legitimate” government interest. Thus, preferences for persons with disabilities, veterans, etc. may be enacted with vastly less evidence than race- or gender-based measures to combat historic discrimination.

Unlike most legal challenges, the defendant has the initial burden of producing “strong evidence” in support of a race-conscious program.¹⁰ The plaintiff must

⁵ *United States v. Paradise*, 480 U.S. 149, 171 (1987).

⁶ *Adarand v. Peña*, 515 U.S. 200 (1995).

⁷ Cf. *United States v. Virginia*, 518 U.S. 515 (1996).

⁸ *Northern Contracting, Inc. v. Illinois Department of Transportation*, 473 F.3d 715, 720 (7th Cir. 2007) (“Northern Contracting III”).

⁹ *United States v. Carolene Products Co.*, 304 U.S. 144 (1938).

¹⁰ *Aiken v. City of Memphis*, 37 F.3d 1155, 1162 (6th Cir. 1994).

then proffer evidence to rebut the government's case, and bears the ultimate burden of production and persuasion that the affirmative action program is unconstitutional.¹¹ “[W]hen the proponent of an affirmative action plan produces sufficient evidence to support an inference of discrimination, the plaintiff must rebut that inference in order to prevail.”¹² A plaintiff “cannot meet its burden of proof through conjecture and unsupported criticism of [the government’s] evidence.”¹³ For example, in the challenge to the Minnesota and Nebraska DBE programs, “plaintiffs presented evidence that the data was susceptible to multiple interpretations, but they failed to present affirmative evidence that no remedial action was necessary because minority-owned small businesses enjoy non-discriminatory access to and participation in highway contracts. Thus, they failed to meet their ultimate burden to prove that the DBE program is unconstitutional on this ground.”¹⁴ When the statistical information is sufficient to support the inference of discrimination, the plaintiff must prove that the statistics are flawed.¹⁵ A plaintiff cannot rest upon general criticisms of studies or other evidence; it must carry the case that the government’s proof is inadequate to meet strict scrutiny, rendering the legislation or governmental program illegal.¹⁶

There is no need of formal legislative findings of discrimination,¹⁷ nor “an ultimate judicial finding of discrimination before [a local government] can take affirmative steps to eradicate discrimination.”¹⁸

To meet strict scrutiny, studies have been conducted that gather the statistical and anecdotal evidence necessary to support the use of race- and gender-conscious measures to combat discrimination. These are commonly referred to as “disparity studies” because they analyze any disparities between the opportunities and experiences of minority- and women-owned firms and their actual utilization compared to white male-owned businesses. Quality studies also examine the elements of the agency’s programs to determine whether they are sufficiently narrowly tailored. The following is a detailed discussion of the

¹¹ *Adarand Constructors, Inc. v. Slater*, 228 F.3d 1147, 1166 (10th Cir. 2000), cert. granted then dismissed as improvidently granted, 532 U.S. 941 (2001) (“*Adarand VII*”); *W.H. Scott Construction Co., Inc. v. City of Jackson, Mississippi*, 199 F.3d 206, 219 (5th Cir. 1999).

¹² *Engineering Contractors Association of South Florida, Inc. v. Metropolitan Dade County*, 122 F.3d 895, 916 (11th Cir. 1997).

¹³ *Concrete Works of Colorado, Inc. v. City and County of Denver*, 321 F.3d 950, 989, cert. denied, 540 U.S. 1027 (2003) (10th Cir. 2003) (“*Concrete Works III*”).

¹⁴ *Sherbrooke Turf, Inc. v. Minnesota Department of Transportation*, 345 F.3d. 964, 970 (8th Cir. 2003), cert. denied, 541 U.S. 1041 (2004).

¹⁵ *Engineering Contractors II*, 122 F.3d at 916; *Coral Construction Co. v. King County*, 941 F.2d. 910 921 (9th Cir. 1991).

¹⁶ *Adarand VII*, 228 F.3d at 1166; *Engineering Contractors II*, 122 F.3d at 916; *Concrete Works of Colorado, Inc. v. City and County of Denver*, 36 F.3d 1513, 1522-1523 (10th Cir. 1994) (“*Concrete Works II*”); *Webster v. Fulton County, Georgia*, 51 F.Supp.2d 1354, 1364 (N.D. Ga. 1999); see also *Wygant v. Jackson Board of Education*, 476 U.S. 267, 277-278 (1986).

¹⁷ *Webster*, 51 F.Supp.2d at 1364.

¹⁸ *Concrete Works III*, 36 F.3d at 1522.

parameters for conducting studies leading to defensible programs that can establish the District's compelling interest in remedying discrimination and developing narrowly tailored initiatives.

B. The Foundation of Strict Scrutiny: *City of Richmond v. J.A. Croson Co.*

The U.S. Supreme Court in the case of the *City of Richmond v. J.A. Croson Co.* established the constitutional contours of permissible race-based public contracting programs. Reversing long established law, the Court for the first time extended the highest level of judicial examination from measures designed to limit the rights and opportunities of minorities to legislation that benefits these historic victims of discrimination. Strict scrutiny requires that a government entity prove both its "compelling interest" in remedying identified discrimination based upon "strong evidence," and that the measures adopted to remedy that discrimination are "narrowly tailored" to that evidence. However benign the government's motive, race is always so suspect a classification that its use must pass the highest constitutional test of "strict scrutiny."

The Court struck down the City of Richmond's Minority Business Enterprise Plan that required prime contractors awarded City construction contracts to subcontract at least 30 percent of the project to Minority-Owned Business Enterprises ("MBEs"). A business located anywhere in the country which was at least 51 percent owned and controlled by "Black, Spanish-speaking, Oriental, Indian, Eskimo, or Aleut" citizens was eligible to participate. The Plan was adopted after a public hearing at which no direct evidence was presented that the City had discriminated on the basis of race in awarding contracts or that its prime contractors had discriminated against minority subcontractors. The only evidence before the City Council was: (a) Richmond's population was 50 percent Black, yet less than one percent of its prime construction contracts had been awarded to minority businesses; (b) local contractors' associations were virtually all White; (c) the City Attorney's opinion that the Plan was constitutional; and (d) general statements describing widespread racial discrimination in the local, Virginia, and national construction industries.

In affirming the court of appeals' determination that the Plan was unconstitutional, Justice Sandra Day O'Connor's plurality opinion rejected the extreme positions that local governments either have *carte blanche* to enact race-based legislation or must prove their own illegal conduct:

[A] state or local subdivision...has the authority to eradicate the effects of private discrimination within its own legislative jurisdiction.... [Richmond] can use its spending powers to remedy private discrimination, if it identifies that discrimination with the particularity required by the Fourteenth Amendment... [I]f the City could show that it had essentially become a "passive participant" in

a system of racial exclusion...[it] could take affirmative steps to dismantle such a system.¹⁹

Strict scrutiny of race-based remedies is required to determine whether racial classifications are in fact motivated by either notions of racial inferiority or blatant racial politics. This highest level of judicial review “smokes out” illegitimate uses of race by assuring that the legislative body is pursuing a goal important enough to warrant use of a highly suspect tool.²⁰ It further ensures that the means chosen “fit” this compelling goal so closely that there is little or no possibility that the motive for the classification was illegitimate racial prejudice or stereotype. The Court made clear that strict scrutiny seeks to expose racial stigma; racial classifications are said to create racial hostility if they are based on notions of racial inferiority.²¹

Race is so suspect a basis for government action that more than “societal” discrimination is required to restrain racial stereotyping or pandering. The Court provided no definition of “societal” discrimination or any guidance about how to recognize the ongoing realities of history and culture in evaluating race-conscious programs. The Court simply asserted that:

[w]hile there is no doubt that the sorry history of both private and public discrimination in this country has contributed to a lack of opportunities for black entrepreneurs, this observation, standing alone, cannot justify a rigid racial quota in the awarding of public contracts in Richmond, Virginia.... [A]n amorphous claim that there has been past discrimination in a particular industry cannot justify the use of an unyielding racial quota. It is sheer speculation how many minority firms there would be in Richmond absent past societal discrimination.²²

Richmond’s evidence was found to be lacking in every respect. The City could not rely upon the disparity between its utilization of MBE prime contractors and Richmond’s minority population because not all minority persons would be qualified to perform construction projects; general population representation is irrelevant. No data were presented about the availability of MBEs in either the relevant market area or their utilization as subcontractors on City projects. According to Justice O’Connor, the extremely low MBE membership in local contractors’ associations could be explained by “societal” discrimination or perhaps Blacks’ lack of interest in participating as business owners in the construction industry. To be relevant, the City would have to demonstrate

¹⁹ 488 U.S. at 491-92.

²⁰ See also *Grutter v. Bollinger*, 539 U.S. 306, 327 (2003) (“Not every decision influenced by race is equally objectionable, and strict scrutiny is designed to provide a framework for carefully examining the importance and the sincerity of the reasons advanced by the governmental decision maker for the use of race in that particular context.”).

²¹ 488 U.S. at 493.

²² *Id.* at 499.

statistical disparities between eligible MBEs and actual membership in trade or professional groups. Further, Richmond presented no evidence concerning enforcement of its own anti-discrimination ordinance. Finally, Richmond could not rely upon Congress' determination that there has been nationwide discrimination in the construction industry. Congress recognized that the scope of the problem varies from market to market, and in any event it was exercising its powers under Section Five of the Fourteenth Amendment, whereas a local government is further constrained by the Amendment's Equal Protection Clause.

In the case at hand, the City has not ascertained how many minority enterprises are present in the local construction market nor the level of their participation in City construction projects. The City points to no evidence that qualified minority contractors have been passed over for City contracts or subcontracts, either as a group or in any individual case. Under such circumstances, it is simply impossible to say that the City has demonstrated "a strong basis in evidence for its conclusion that remedial action was necessary."²³

The foregoing analysis was applied only to Blacks. The Court then emphasized that there was "absolutely no evidence" against other minorities. "The random inclusion of racial groups that, as a practical matter, may have never suffered from discrimination in the construction industry in Richmond, suggests that perhaps the City's purpose was not in fact to remedy past discrimination."²⁴

Having found that Richmond had not presented evidence in support of its compelling interest in remedying discrimination—the first prong of strict scrutiny—the Court went on to make two observations about the narrowness of the remedy—the second prong of strict scrutiny. First, Richmond had not considered race-neutral means to increase MBE participation. Second, the 30 percent quota had no basis in evidence, and was applied regardless of whether the individual MBE had suffered discrimination.²⁵ Further, Justice O'Connor rejected the argument that individualized consideration of Plan eligibility is too administratively burdensome.

Apparently recognizing that the opinion might be misconstrued to categorically eliminate all race-conscious contracting efforts, Justice O'Connor closed with these admonitions:

Nothing we say today precludes a state or local entity from taking action to rectify the effects of identified discrimination within its jurisdiction. If the City of Richmond had evidence before it that non-minority contractors were systematically excluding minority businesses from subcontracting opportunities, it could take action to

²³ *Id.* at 510.

²⁴ *Id.*

²⁵ See *Grutter*, 529 U.S. at 336-337 (quotas are not permitted; race must be used in a flexible, non-mechanical way).

end the discriminatory exclusion. 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. Under such circumstances, the City could act to dismantle the closed business system by taking appropriate measures against those who discriminate based on race or other illegitimate criteria. In the extreme case, some form of narrowly tailored racial preference might be necessary to break down patterns of deliberate exclusion.... Moreover, evidence of a pattern of individual discriminatory acts can, if supported by appropriate statistical proof, lend support to a local government's determination that broader remedial relief is justified.²⁶

While much has been written about *Croson*, it is worth stressing what evidence was and was not before the Court. First, Richmond presented *no* evidence regarding the availability of MBEs to perform as prime contractors or subcontractors and *no* evidence of the utilization of minority-owned subcontractors on City contracts.²⁷ Nor did Richmond attempt to link the remedy it imposed to any evidence specific to the Program; it used the general population of the City rather than any measure of business availability.

Some commentators have taken this dearth of any particularized proof and argued that only the most particularized proof can suffice in all cases. They leap from the Court's rejection of Richmond's reliance on only the percentage of Blacks in the City's population to a requirement that only firms that bid or have the "capacity" or "willingness" to bid on a particular contract at a particular time can be considered in determining whether discrimination against Black businesses infects the local economy.²⁸

This contention has been rejected explicitly by some courts. For example, in denying the plaintiff's summary judgment motion to enjoin the City of New York's M/WBE construction ordinance, the court stated that:

[I]t is important to remember what the *Croson* plurality opinion did and did not decide. The Richmond program, which the *Croson* Court struck down, was insufficient because it was based on a comparison of the minority population in its entirety in Richmond, Virginia (50%) with the number of contracts awarded to minority businesses (.67%). There were no statistics presented regarding number of minority-owned contractors in the Richmond area, *Croson*, 488 U.S. at 499, and the Supreme Court was concerned

²⁶ 488 U.S. at 509 (citations omitted).

²⁷ *Id.* at 502.

²⁸ See, e.g., Northern Contracting III, 473 F.3d at 723.

with the gross generality of the statistics used in justifying the Richmond program. There is no indication that the statistical analysis performed by [the consultant] in the present case, which does contain statistics regarding minority contractors in New York City, is not sufficient as a matter of law under *Croson*.²⁹

Further, Richmond made no attempt to narrowly tailor a goal for the procurement at issue that reflected the reality of the project. Arbitrary quotas, and the unyielding application of those quotas, did not support the stated objective of ensuring equal access to City contracting opportunities. The *Croson* Court said nothing about the constitutionality of flexible subcontracting goals based upon the availability of MBEs to perform the scopes of the contract in the government's local market area. In contrast, the USDOT DBE Program avoids these pitfalls. 49 CFR Part 26 "provides for a flexible system of contracting goals that contrasts sharply with the rigid quotas invalidated in *Croson*."³⁰

While strict scrutiny is designed to require clear articulation of the evidentiary basis for race-based decision-making and careful adoption of remedies to address discrimination, it is not, as Justice O'Connor stressed, an impossible test that no proof can meet. Strict scrutiny need not be "fatal in fact."

C. Strict Scrutiny as Applied to Federal Enactments: *Adarand v. Peña*

In *Adarand v. Peña*,³¹ the Supreme Court again overruled long settled law and extended the analysis of strict scrutiny under the Due Process Clause of the Fourteenth Amendment to federal enactments. Just as in the local government context, when evaluating federal legislation and regulations:

[t]he strict scrutiny test involves two questions. The first is whether the interest cited by the government as its reason for injecting the consideration of race into the application of law is sufficiently compelling to overcome the suspicion that racial characteristics ought to be irrelevant so far as treatment by the government is concerned. The second is whether the government has narrowly tailored its use of race, so that race-based classifications are applied only to the extent absolutely required to reach the proffered interest. The strict scrutiny test is thus a recognition that while

²⁹ North Shore Concrete and Associates, Inc. v. City of New York, 1998 U.S. Dist. Lexis 6785, *28-29 (E.D. N.Y. 1998); see also Harrison & Burrowes Bridge Constructors, Inc. v. Cuomo, 981 F.2d 50, 61-62 (2nd Cir. 1992) ("*Croson* made only broad pronouncements concerning the findings necessary to support a state's affirmative action plan"); cf. Concrete Works II, 36 F.3d at 1528 (City may rely on "data reflecting the number of MBEs and WBEs in the marketplace to defeat the challenger's summary judgment motion").

³⁰ Western States Paving Co., Inc. v. Washington Department of Transportation, 407 F.3d 983, 994 (9th Cir. 2005), cert. denied, 546 U.S. 1170 (2006).

³¹ 515 U.S. 200 (1995) (*Adarand III*).

classifications based on race may be appropriate in certain limited legislative endeavors, such enactments must be carefully justified and meticulously applied so that race is determinative of the outcome in only the very narrow circumstances to which it is truly relevant.³²

D. Establishing a “Strong Basis in Evidence” for the District’s Minority- And Women-Owned Business Enterprise Program

It is well established that disparities in an agency’s utilization of Minority- and Women-Owned Business Enterprises (“M/WBEs”) and their availability in the relevant marketplace provide a sufficient basis for the consideration of race- or gender-conscious remedies. Proof of the disparate impacts of economic factors on M/WBEs and the disparate treatment of such firms by actors critical to their success will meet strict scrutiny. Discrimination must be shown using statistics and economic models to examine the effects of systems or markets on different groups, as well as by evidence of personal experiences with discriminatory conduct, policies or systems.³³ Specific evidence of discrimination or its absence may be direct or circumstantial, and should include economic factors and opportunities in the private sector affecting the success of M/WBEs.³⁴

Croson’s admonition that “mere societal” discrimination is not enough to meet strict scrutiny does not apply where the government presents evidence of discrimination in the industry targeted by the program. “If such evidence is presented, it is immaterial for constitutional purposes whether the industry discrimination springs from widespread discriminatory attitudes shared by society or is the product of policies, practices, and attitudes unique to the industry... The genesis of the identified discrimination is irrelevant.” There is no requirement to “show the existence of specific discriminatory policies and that those policies were more than a reflection of societal discrimination.”³⁵

Nor must a government prove that it is itself guilty of discrimination to meet its burden. In upholding Denver’s M/WBE construction program, the court stated that Denver can show its compelling interest by “evidence of private discrimination in the local construction industry coupled with evidence that it has become a passive participant in that discrimination...[by] linking its spending practices to the private discrimination.”³⁶ Denver further linked its award of public dollars to discriminatory conduct through the testimony of M/WBEs that identified general contractors who used them on City projects with M/WBE goals but refused to use them on private projects without goals.

³² *Adarand Constructors, Inc. v. Peña*, 965 F. Supp. 1556, 1569-1570 (D. Colo. 1997), *rev’d*, 228 F.3d 1147 (2000) (“*Adarand IV*”); *see also Adarand III*, 515 U.S. at 227.

³³ *Adarand VII*, 228 F.3d at 1166 (“statistical and anecdotal evidence are appropriate”).

³⁴ *Id.*

³⁵ *Concrete Works IV*, 321 F.3d at 976.

³⁶ *Id.* at 977.

The following are the evidentiary elements courts have looked to in examining the basis for and determining the constitutional validity of race- and gender-conscious programs and the steps in performing a disparity study necessary to meet these elements.

1. Define the District's Market Area

The first step is to determine the market areas in which the District operates. *Croson* states that a state or local government may only remedy discrimination within its own contracting market area.³⁷ The agency must empirically establish the geographic and product dimensions of its contracting and procurement market area to ensure that the program meets strict scrutiny. This is a fact driven inquiry; it may or may not be the case that the market area is the government's jurisdictional boundaries or the Metropolitan Statistical Area as determined by the Bureau of the Census..³⁸

A commonly accepted definition of geographic market area for disparity studies is the locations that account for at least 75 percent of the agency's contract and subcontract dollar payments.³⁹ Likewise, the accepted approach is to analyze those detailed industries that make up at least 75 percent of the prime contract and subcontract payments for the study period.⁴⁰

2. Examine Disparities between M/WBE Availability and the District's Utilization of M/WBEs

Next, the study must estimate the availability of minorities and women to participate in the District's contracts and its history of utilizing M/WBEs as prime contractors and associated subcontractors. The primary inquiry is whether there are statistically significant disparities between the availability of M/WBEs and the utilization of such firms.

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... In the extreme case, some form of narrowly tailored racial preference might be necessary to break down patterns of deliberate exclusion.⁴¹

³⁷ *Croson*, 488 U.S. at 508.

³⁸ *Concrete Works II*, 36 F.3d at 1520 (to confine data to strict geographic boundaries would ignore "economic reality").

³⁹ "Guidelines for Conducting a Disparity and Availability Study for the Federal DBE Program," Transportation Research Board of the National Academy of Sciences, NCHRP Report, Issue No. 644, 2010, p. 49 ("National Disparity Study Guidelines").

⁴⁰ *Id.* at pp. 50-51.

⁴¹ *Croson*, 488 U.S. at 509; see *Webster*, 51 F.Supp.2d at 1363, 1375.

This is known as the “disparity ratio” or “disparity index.” A disparity ratio measures the participation of a group in the government’s contracting opportunities by dividing that group’s utilization by the availability of that group, and multiplying that result by 100%. Courts have looked to disparity indices in determining whether strict scrutiny is satisfied.⁴² An index less than 100 percent indicates that a given group is being utilized less than would be expected based on its availability, and courts have adopted the Equal Employment Opportunity Commission’s “80 percent” rule that a ratio less than 80 percent presents a *prima facie* case of discrimination.⁴³

The first step in the disparity analysis is to calculate the availability of minority- and women-owned firms in the District’s geographic and industry market area. In addition to creating the disparity ratio, correct measures of availability are necessary to determine whether discriminatory barriers depress the formation of firms by minorities and women, and the success of such firms in doing business in both the private and public sectors.⁴⁴

The second step is to determine whether there are disparities between the availability estimates and the District’s utilization of M/WBEs. Where possible, statistical techniques are applied to examine whether any disparities are significant.

There is no requirement to control for firm size, area of specialization, and whether the firm had bid on agency projects. While it may be true that M/WBEs are smaller in general than white male firms, most construction firms are small and can expand and contract to meet their bidding opportunities. Importantly, the courts have recognized that size and experience are not race- and gender-neutral variables: “M/WBE construction firms are generally smaller and less experienced *because* of discrimination.”⁴⁵ To rebut this inference, a plaintiff must proffer its own study showing that the disparities disappear when such variables are held constant and that controlling for firm specialization explained the disparities. Additionally, *Croson* does not “require disparity studies that measure whether construction firms are able to perform a *particular contract*.”⁴⁶

⁴² Scott, 199 F.3d at 218; see also *Concrete Works II*, 36 F.3d at 1526-1527; *O’Donnell Construction Co., Inc. v. District of Columbia*, 963 F.2d 420, 426 (D.C. Cir. 1992); *Cone Corp. v. Hillsborough County*, 908 F.2d 908, 916 (11th Cir. 1990), cert. denied, 498 U.S. 983 (1990).

⁴³ 29 C.F.R. § 1607.4(D) (“A selection rate for any race, sex, or ethnic group which is less than four-fifths (4/5) (or eighty percent) of the rate for the group with the highest rate will generally be regarded by the Federal enforcement agencies as evidence of adverse impact, while a greater than four-fifths rate will generally not be regarded by Federal enforcement agencies as evidence of adverse impact.”); see *Engineering Contractors II*, 122 F3d at 914.

⁴⁴ *Northern Contracting II*, 2005 U.S. Dist. LEXIS 19868, at *70 (IDOT’s custom census approach was supportable because “discrimination in the credit and bonding markets may artificially reduce the number of M/WBEs”).

⁴⁵ *Concrete Works IV*, 321 F.3d at 983 (emphasis in the original).

⁴⁶ *Id.* at 987-88 (emphasis in the original).

The agency need not prove that the statistical inferences of discrimination are “correct.” In upholding Denver’s M/WBE Program, the Tenth Circuit noted that strong evidence supporting Denver’s determination that remedial action was necessary need not have been based upon “irrefutable or definitive” proof of discrimination. Statistical evidence creating inferences of discriminatory motivations was sufficient and therefore evidence of market area discrimination was properly used to meet strict scrutiny. To rebut this type of evidence, the plaintiff must prove by a preponderance of the evidence that such proof does not support those inferences.⁴⁷

Nor must the government demonstrate that the “ordinances will *change* discriminatory practices and policies” in the local market area; such a test would be “illogical” because firms could defeat the remedial efforts simply by refusing to cease discriminating.⁴⁸

The District need not prove that private firms directly engaged in any discrimination in which the government passively participates do so intentionally, with the purpose of disadvantaging minorities and women.

Denver’s only burden was to introduce evidence which raised the inference of discriminatory exclusion in the local construction industry and link its spending to that discrimination.... Denver was under no burden to identify any specific practice or policy that resulted in discrimination. Neither was Denver required to demonstrate that the purpose of any such practice or policy was to disadvantage women or minorities. To impose such a burden on a municipality would be tantamount to requiring proof of discrimination and would eviscerate any reliance the municipality could place on statistical studies and anecdotal evidence.⁴⁹

Similarly, statistical evidence by its nature cannot identify the individuals responsible for the discrimination.⁵⁰

3. Evaluate the Results of Unremediated Markets

Where such evidence is available, a study should next review the results of contracts solicited without goals. Courts have held that such outcomes are an excellent indicator of whether discrimination continues to impact opportunities in public contracting. Evidence of race and gender discrimination in relevant “unremediated”⁵¹ markets provides an important indicator of what level of actual M/WBE participation can be expected in the absence of government mandated

⁴⁷ *Id.* at 971.

⁴⁸ *Id.* at 973 (emphasis in the original).

⁴⁹ *Id.* at 971.

⁵⁰ *Id.* at 973.

⁵¹ “Unremediated market” means “markets that do not have race- or gender-conscious subcontracting goals in place to remedy discrimination.” *Northern Contracting II*, at *36.

affirmative efforts to contract with M/WBEs.⁵² As the Eleventh Circuit has acknowledged, “the program at issue may itself be masking discrimination that might otherwise be occurring in the relevant market.”⁵³ If M/WBE utilization is below availability in unremediated markets, an inference of discrimination may be supportable. The virtual disappearance of M/WBE participation after programs have been enjoined or abandoned strongly indicates substantial barriers to minority subcontractors, “raising the specter of racial discrimination.”⁵⁴ Unremediated markets analysis addresses whether the government has been and continues to be a “passive participant” in such discrimination, in the absence of affirmative action remedies.⁵⁵ The court in the Chicago case held that the “dramatic decline in the use of M/WBEs when an affirmative action program is terminated, and the paucity of use of such firms when no affirmative action program was ever initiated,” was proof of the City’s compelling interest in employing race- and gender-conscious measures.⁵⁶ Evidence of unremediated markets “sharpens the picture of local market conditions for MBEs and WBEs.”⁵⁷

Therefore, if M/WBEs are “overutilized” because of the entity’s program, that does not end the study’s inquiry. Where the government has been implementing affirmative action remedies, M/WBE utilization reflects those efforts; it does not signal the end of discrimination. Any M/WBE “overutilization” on projects with goals goes only to the weight of the evidence because it reflects the effects of a remedial program. For example, Denver presented evidence that goals and non-goals projects were similar in purpose and scope and that the same pool of contractors worked on both types. “Particularly persuasive” was evidence that M/WBE participation declined significantly when the program was amended in 1989; the utilization of M/WBEs on City projects had been affected by the affirmative action programs that have been in place in one form or another since 1977.

4. Examine Economy-Wide Evidence of Race- and Gender-Based Disparities

The courts have repeatedly held that analysis of disparities in the rates at which M/WBEs in the government’s markets form businesses compared to similar non-M/WBEs, their earnings from such businesses, and their access to capital markets are highly relevant to the determination whether the market functions

⁵² See, e.g., *Western States*, 407 F.3d at 992 (Congress properly considered evidence of the “significant drop in racial minorities’ participation in the construction industry” after state and local governments removed affirmative action provisions).

⁵³ *Engineering Contractors II*, 122 F.3d at 912.

⁵⁴ *Adarand VII*, 228 F.3d at 1174.

⁵⁵ See also *Contractors Association of Eastern Pennsylvania v. City of Philadelphia*, 91 F.3d 586, 599-601 (3rd Cir. 1996) (“Philadelphia III”).

⁵⁶ *Builders Association of Greater Chicago v. City of Chicago*, 298 F. Supp.2d 725, 737 (N.D. Ill. 2003); see also *Concrete Works IV*, 321 F.3d at 987-988.

⁵⁷ *Concrete Works II*, 36 F.3d at 1529.

properly for all firms regardless of the race or gender of their ownership. These analyses contributed to the successful defense of Chicago's construction program.⁵⁸ As explained by the Tenth Circuit, this type of evidence

demonstrates the existence of two kinds of discriminatory barriers to minority subcontracting enterprises, both of which show a strong link between racial disparities in the federal government's disbursements of public funds for construction contracts and the channeling of those funds due to private discrimination. The first discriminatory barriers are to the formation of qualified minority subcontracting enterprises due to private discrimination, precluding from the outset competition for public construction contracts by minority enterprises. The second discriminatory barriers are to fair competition between minority and non-minority subcontracting enterprises, again due to private discrimination, precluding existing minority firms from effectively competing for public construction contracts. The government also presents further evidence in the form of local disparity studies of minority subcontracting and studies of local subcontracting markets after the removal of affirmative action programs.... The government's evidence is particularly striking in the area of the race-based denial of access to capital, without which the formation of minority subcontracting enterprises is stymied.⁵⁹

Business discrimination studies and lending studies are relevant and probative because they show a strong link between the disbursement of public funds and the channeling of those funds due to private discrimination. "Evidence that private discrimination results in barriers to business formation is relevant because it demonstrates that M/WBEs are precluded *at the outset* from competing for public construction contracts. Evidence of barriers to fair competition is also relevant because it again demonstrates that *existing* M/WBEs are precluded from competing for public contracts."⁶⁰ Despite the contentions of plaintiffs that possibly dozens of factors might influence the ability of any individual to succeed in business, the courts have rejected such impossible tests and held that business formation studies are not flawed because they cannot control for subjective descriptions such as "quality of education," "culture" and "religion."

For example, in unanimously upholding the USDOT DBE Program, the courts agree that disparities between the earnings of minority-owned firms and similarly situated non-minority-owned firms and the disparities in commercial loan denial rates between Black business owners compared to similarly situated non-minority

⁵⁸ *Builders Association of Greater Chicago v. City of Chicago*, 298 F.Supp.2d 725 (N.D. Ill. 2003) (holding that City of Chicago's M/WBE program for local construction contracts met compelling interest using this framework).

⁵⁹ *Adarand VII*, 228 F.3d at 1168-69 .

⁶⁰ *Id.*

business owners are strong evidence of the continuing effects of discrimination.⁶¹ The Eighth Circuit Court of Appeals took a “hard look” at the evidence Congress considered, and concluded that the legislature had

spent decades compiling evidence of race discrimination in government highway contracting, of barriers to the formation of minority-owned construction businesses, and of barriers to entry. In rebuttal, [the plaintiffs] presented evidence that the data were susceptible to multiple interpretations, but they failed to present affirmative evidence that no remedial action was necessary because minority-owned small businesses enjoy non-discriminatory access to and participation in highway contracts. Thus, they failed to meet their ultimate burden to prove that the DBE program is unconstitutional on this ground.⁶²

5. Examine Anecdotal Evidence of Race- and Gender-Based Barriers

In addition to quantitative data, a study should further explore anecdotal evidence of experiences with discrimination in contracting opportunities because it is relevant to the question of whether observed statistical disparities are due to discrimination and not to some other non-discriminatory cause or causes. As observed by the Supreme Court, anecdotal evidence can be persuasive because it “brought the cold [statistics] convincingly to life.”⁶³ Evidence about discriminatory practices engaged in by prime contractors, bonding companies, suppliers, lenders and other actors relevant to business opportunities has been found relevant regarding barriers both to minority firms’ business formation and to their success on governmental projects.⁶⁴ While anecdotal evidence is insufficient standing alone, “[p]ersonal accounts of actual discrimination or the effects of discriminatory practices may, however, vividly complement empirical evidence. Moreover, anecdotal evidence of a [government’s] institutional practices that exacerbate discriminatory market conditions are [sic] often particularly probative.”⁶⁵ “[W]e do not set out a categorical rule that every case must rise or fall entirely on the sufficiency of the numbers. To the contrary, anecdotal evidence might make the pivotal difference in some cases; indeed, in

⁶¹ *Id.*; *Western States*, 407 F.3d at 993; *Northern Contracting I*, 2004 U.S. Dist. LEXIS 3226 at *64.

⁶² *Sherbrooke*, 345 F.3d. at 970; *see also Adarand VII*, 228 F.3d at 1175 (plaintiff has not met its burden “of introducing credible, particularized evidence to rebut the government’s initial showing of the existence of a compelling interest in remedying the nationwide effects of past and present discrimination in the federal construction procurement subcontracting market.”).

⁶³ *International Brotherhood of Teamsters v. United States*, 431 U.S. 324, 399 (1977).

⁶⁴ *Adarand VII*, 228 F.3d at 1168-1172.

⁶⁵ *Concrete Works II*, 36 F.3d at 1520, 1530.

an exceptional case, we do not rule out the possibility that evidence not reinforced by statistical evidence, as such, will be enough.”⁶⁶

There is no requirement that anecdotal testimony be “verified” or corroborated, as befits the role of evidence in legislative decision-making as opposed to judicial proceedings. “Plaintiff offers no rationale as to why a fact finder could not rely on the State’s ‘unverified’ anecdotal data. Indeed, a fact finder could very well conclude that anecdotal evidence need not— indeed cannot— be verified because it ‘is nothing more than a witness’ narrative of an incident told from the witness’ perspective and including the witness’ perception.”⁶⁷ Likewise, the Tenth Circuit held that “Denver was not required to present corroborating evidence and [plaintiff] was free to present its own witnesses to either refute the incidents described by Denver’s witnesses or to relate their own perceptions on discrimination in the Denver construction industry.”⁶⁸

E. Narrowly Tailoring a Minority- and Women-Owned Business Enterprise Program for the District

Even if the District has a strong basis in evidence to believe that race-based measures are needed to remedy identified discrimination, the program must also be narrowly tailored to that evidence. The courts have repeatedly examined the following factors in determining whether race-based remedies are narrowly tailored to achieve their purpose:

- The efficacy of race-neutral remedies at overcoming identified discrimination;
- The relationship of numerical benchmarks for government spending to the availability of minority- and women-owned firms and to subcontracting goal setting procedures;
- The flexibility of the program requirements, including the provision for good faith efforts to meet goals and contract specific goal setting procedures;
- The congruence between the remedies adopted and the beneficiaries of those remedies;
- Any adverse impact of the relief on third parties; and

⁶⁶ *Engineering Contractors II*, 122 F.3d at 926.

⁶⁷ *Id.* at 249.

⁶⁸ *Concrete Works IV*, 321 F.3d at 989.

- The duration of the program.⁶⁹

It is imperative that remedies not operate as fixed quotas.⁷⁰ Programs that lack waivers for firms that fail to meet the subcontracting goals but make good faith efforts to do so have been struck down.⁷¹ In *Croson*, the Court refers approvingly to the contract-by-contract waivers used in the USDOT's DBE program.⁷² This feature has been central to the holding that the DBE program meets the narrow tailoring requirement.⁷³

1. Implement Race- and Gender-Neutral Remedies

Race- and gender-neutral approaches are a necessary component of a defensible and effective race- and gender-conscious program⁷⁴ and the failure to seriously consider such remedies has been fatal to several programs.⁷⁵ Barriers such as difficulty in accessing procurement opportunities, antiquated systems, restrictive bid specifications, excessive experience requirements, and overly burdensome insurance and/or bonding requirements, for example, should be addressed by the District to open up opportunities for all small firms. Effective remedies include unbundling of contracts into smaller units, providing technical support, and developing programs to address issues of financing, bonding, and insurance important to all small and emerging businesses.⁷⁶ Further, governments have a duty to ferret out and punish discrimination against minorities and women by their contractors, staff, lenders, bonding companies or others.⁷⁷

The requirement that an agency must meet the maximum feasible portion of the goal through race-neutral measures as well as estimate that portion of the goal it

⁶⁹ *United States v. Paradise*, 480 U.S. 149, 171 (1987); see also *Sherbrooke*, 345 F.3d at 971-972.

⁷⁰ See 49 C.F.R § 26.43 (quotas are not permitted and setaside contracts may be used only in limited and extreme circumstances "when no other method could be reasonably expected to redress egregious instances of discrimination").

⁷¹ See, e.g., *BAGC v. Chicago*, 298 F. Supp.2d at 740 ("Waivers are rarely or never granted...The City program is a rigid numerical quota...formulistic percentages cannot survive strict scrutiny.").

⁷² 488 U.S. at 508; see also *Adarand VII*, 228 F.3d at 1181.

⁷³ See, e.g., *Sherbrooke*, 345 F.3d at 972.

⁷⁴ *Croson*, 488 U.S. at 507 (Richmond considered no alternatives to race-based quota); *Philadelphia III*, 91 F.3d at 609 (City's failure to consider race-neutral alternatives was particularly telling); *Webster*, 51 F.Supp.2d at 1380 (for over 20 years County never seriously considered race-neutral remedies); cf. *Aiken*, 37 F.3d at 1164 (failure to consider race-neutral method of promotions suggested a political rather than a remedial purpose).

⁷⁵ See, e.g., *Florida A.G.C. Council, Inc. v. State of Florida*, Case No.: 4:03-CV-59-SPM at 10 (N. Dist. Fla. 2004) ("There is absolutely no evidence in the record to suggest that the Defendants contemplated race-neutral means to accomplish the objectives" of the statute.); *Engineering Contractors II*, 122 F.3d at 928.

⁷⁶ See 49 CFR § 26.51.0.

⁷⁷ *Croson*, 488 U.S. at 503 n.3; *Webster*, 51 F.Supp.2d at 1380.

predicts will be met through such measures has been central to the holdings that the DBE regulations meet narrow tailoring.⁷⁸

However, strict scrutiny does not require that every race-neutral approach must be implemented and then proven ineffective before race-conscious remedies may be utilized.⁷⁹ While an entity must give good faith consideration to race-neutral alternatives, “strict scrutiny does not require exhaustion of every possible such alternative...however irrational, costly, unreasonable, and unlikely to succeed such alternative might be... [S]ome degree of practicality is subsumed in the exhaustion requirement.”⁸⁰

2. Set Targeted Annual and Contract Goals

Numerical goals or benchmarks for M/WBE participation must be substantially related to their availability in the relevant market and the scopes of work of the project.⁸¹ Goal setting, however, is not an absolute science.⁸³ “Though the underlying estimates may be inexact, the exercise requires the States to focus on establishing realistic goals for DBE participation in the relevant contracting markets. This stands in stark contrast to the program struck down in *Croson*.”⁸⁴

It is settled case law that goals for a particular solicitation should reflect the particulars of the contract, not reiterate annual aggregate targets. Contract specific goals must be based upon availability of D/M/WBEs to perform the anticipated scopes— including the work estimated to be performed by the prime firm— of the individual contract. Contract goal setting is legally mandated; applying the overall, annual goals regardless of the particulars of the contract, even if bidders may seek waivers later, fails the narrow tailoring standard.⁸⁵ Further, project specific goals reduce the need to conduct good faith efforts reviews when bidders cannot achieve the arbitrary goal, as well as the temptation to create “front” companies and sham participation rather than seek waivers. While more labor intensive than defaulting to the annual, overall goals, there is no constitutional option to eschew narrowly tailoring program implementation because to do so would be more administratively burdensome.

⁷⁸ See, e.g., *Sherbrooke*, 345 F.3d. at 973

⁷⁹ *Grutter*, 529 U.S. at 339.

⁸⁰ *Coral Construction*, 941 F.2d at 923.

⁸¹ *Webster*, 51 F.Supp.2d at 1379, 1381 (statistically insignificant disparities are insufficient to support an unexplained goal of 35 percent M/WBE participation in County contracts); see also *Associated Utility Contractors of Maryland, Inc. v. Mayor and City Council of Baltimore, et al.*, 83 F.Supp.2d 613, 621 (D. Md. 2000) (“*Baltimore I*”).

⁸² For example, the DBE regulations require that the overall goal must be based upon demonstrable evidence of the number of DBEs ready, willing, and able to participate on the recipient’s federally assisted contracts. 49 C.F.R. § 26.45.

⁸³ In upholding New Jersey Transit’s DBE program, the court held that “Plaintiffs have failed to provide evidence of another, more perfect, method” of goal setting. *GEOD Corp. v. New Jersey Transit Corp.*, 2009 U.S. Dist. LEXIS 74120, at *20 (D. N.J. 2009).

⁸⁴ *Sherbrooke*, 345 F.3d. at 972.

⁸⁵ See *id*; *Coral Construction*, 941 F.2d at 924.

3. Ensure Flexibility of Goals and Requirements

It is imperative that remedies not operate as fixed quotas.⁸⁶ A M/WBE program must provide for contract awards to firms who fail to meet the contract goals but make good faith efforts to do so.⁸⁷ Further, firms that meet the goals cannot be favored over those who made good faith efforts. In *Croson*, the Court refers approvingly to the contract-by-contract waivers used in the USDOT's DBE program.⁸⁸ This feature has been central to the holding that the DBE program meets the narrow tailoring requirement.⁸⁹

4. Review Program Eligibility Over-Inclusiveness and Under-Inclusiveness of Beneficiaries

The over- or under-inclusiveness of those persons to be included in a program is an additional consideration, and goes to whether the remedies truly target the evil identified. The "fit" between the problem and the remedy manifests in two ways: which groups to include and how to define those groups, and which persons will be eligible to be included within those groups.

First, the groups eligible to benefit from the remedies must be based upon the evidence.⁹⁰ The "random inclusion" of ethnic or racial groups that may never have experienced discrimination in the entity's market area may indicate impermissible "racial politics."⁹¹ In striking down Cook County's program, the Seventh Circuit Court of Appeals remarked that a "state or local government that has discriminated just against blacks may not by way of remedy discriminate in favor of blacks and Asian-Americans and women."⁹² However, at least one court has held some quantum of evidence of discrimination for each group is sufficient; *Croson* does not require that each group included in the ordinance suffer equally from discrimination.⁹³ Therefore, remedies should be limited to those firms that have suffered actual harm in the market area.⁹⁴

⁸⁶ See 49 C.F.R. 26.43 (quotas are not permitted and setaside contracts may be used only in limited and extreme circumstances "when no other method could be reasonably expected to redress egregious instances of discrimination").

⁸⁷ See, e.g., *BAGC v. Chicago*, 298 F. Supp.2d at 740 ("Waivers are rarely or never granted...The City program is a rigid numerical quota...formulistic percentages cannot survive strict scrutiny.").

⁸⁸ 488 U.S. at 508; see also *VII*, 228 F.3d at 1181.

⁸⁹ See, e.g., *Sherbrooke*, 345 F.3d. at 972.

⁹⁰ *Contractors Association of Eastern Pennsylvania v. City of Philadelphia*, 6 F.3d 990, 1007-1008 (3rd Cir. 1993) ("*Philadelphia II*") (strict scrutiny requires data for each minority group; data was insufficient to include Hispanics, Asians or Pacific Islanders or Native Americans).

⁹¹ *Webster*, 51 F.Supp.2d at 1380-1381.

⁹² *Builders Association of Greater Chicago v. County of Cook*, 256 F.3d 642, 646 (7th Cir. 2001).

⁹³ *Concrete Works IV*, 321 F.3d at 971 (Denver introduced evidence of bias against each group; that is sufficient).

⁹⁴ *Rowe*, 615 F.3d at 254 ("[T]he statute contemplates participation goals only for those groups shown to have suffered discrimination. As such, North Carolina's statute differs from measures that have failed narrow tailoring for overinclusiveness.").

The policy question of the level of specificity at which to define beneficiaries must be addressed. Approaches range from a single M/WBE or DBE goal that includes all racial and ethnic minorities and nonminority women,⁹⁵ to separate goals for each minority group and women.⁹⁶ It should be noted, however, that the State of Ohio's Program was specifically faulted for lumping together all "minorities," with the court questioning the legitimacy of forcing African American contractors to share relief with recent Asian immigrants.⁹⁷

Second, the DBE Program's limitation to persons who are socially and economical disadvantaged, as opposed to membership in a group standing alone, has been key to its constitutionality. The rebuttable presumptions of social and economic disadvantage, including the requirement that the disadvantaged owner's personal net worth not exceed a certain ceiling and that the firm must meet the Small Business Administration's size definitions for its industry, have been central to the courts' holdings that Part 26 is narrowly tailored.⁹⁸ "[W]ealthy minority owners and wealthy minority-owned firms are excluded, and certification is available to persons who are not presumptively [socially] disadvantaged but can demonstrate actual social and economic disadvantage. Thus, race is made relevant in the program, but it is not a determinative factor."⁹⁹ Further, anyone can challenge the disadvantaged status of any firm.¹⁰⁰

5. Evaluate the Burden on Third Parties

Failure to make "neutral" changes to contracting and procurement policies and procedures that disadvantage M/WBEs and other small businesses may result in a finding that the program unduly burdens non-M/WBEs.¹⁰¹ The burden of compliance need not be placed only upon those firms directly responsible for the discrimination. "Innocent" parties can be made to share some of the burden of

⁹⁵ See 49 C.F.R. § 26.45(h) (overall goal must not be subdivided into group-specific goals).

⁹⁶ See *Engineering Contractors II*, 122 F.3d at 900 (separate goals for Blacks, Hispanics and women).

⁹⁷ *Associated General Contractors of Ohio v. Drabik*, 214 F.3d 730, 737 (6th Cir. 2000) ("*Drabik II*"); see also *Western States*, 407 F.3d at 998 ("We have previously expressed similar concerns about the haphazard inclusion of minority groups in affirmative action programs ostensibly designed to remedy the effects of discrimination.").

⁹⁸ *Sherbrooke*, 345 F.3d at 973; see also *Grutter*, 539 U.S. at 341; *Adarand VII*, 228 F.3d at 1183-1184 (personal net worth limit is element of narrow tailoring); cf. *Associated General Contractors v. City of New Haven*, 791 F.Supp. 941, 948 (D. Conn. 1992), *vacated on other grounds*, 41 F.3d 62 (2nd Cir. 1992) (definition of "disadvantage" was vague and unrelated to goal).

⁹⁹ *Id.* at 973.

¹⁰⁰ 49 C.F.R. §26.87.

¹⁰¹ See *Engineering Contractors Assoc. of South Florida, Inc. v. Metropolitan Dade County* ("*Engineering Contractors I*"), 943 F.Supp. 1546, 1581-1582 (S.D. Fla. 1996) (County chose not to change its procurement system).

the remedy for eradicating racial discrimination.¹⁰² The proper focus is whether the burden on third parties is “too intrusive” or “unacceptable.”

Burdens must be proven, and cannot constitute mere speculation by a plaintiff.¹⁰³ “Implementation of the race-conscious contracting goals for which TEA-21 provides will inevitably result in bids submitted by non-DBE firms being rejected in favor of higher bids from DBEs. Although this places a very real burden on non-DBE firms, this fact alone does not invalidate TEA-21. If it did, all affirmative action programs would be unconstitutional because of the burden upon non-minorities.”¹⁰⁴

Narrow tailoring permits certified firms acting as prime contractors to count their self-performance towards meeting contract goals. There is no requirement that a program be limited only to the subcontracting portions of contracts, and numerous decisions and studies have found that discrimination operates against D/M/WBE prime vendors. For example, the trial court in upholding the Illinois DOT’s DBE program explicitly recognized that barriers to subcontracting opportunities affect the ability of DBEs also to compete for prime work on a fair basis.

This requirement that goals be applied to the value of the entire contract, not merely the subcontracted portion(s), is not altered by the fact that prime contracts are, by law, awarded to the lowest bidder. While it is true that prime contracts are awarded in a race- and gender-neutral manner, the Regulations nevertheless mandate application of goals based on the value of the entire contract. Strong policy reasons support this approach. Although laws mandating award of prime contracts to the lowest bidder remove concerns regarding direct discrimination at the level of prime contracts, the indirect effects of discrimination may linger. The ability of DBEs to compete successfully for prime contracts may be indirectly affected by discrimination in the subcontracting market, or in the bonding and financing markets. Such discrimination is particularly burdensome in the construction industry, a highly competitive industry with tight profit margins, considerable hazards, and strict bonding and insurance requirements.¹⁰⁵

¹⁰² *Concrete Works IV*, 321 F.3d at 973; *Wygant*, 476 U.S. at 280-281; *Adarand VII*, 228 F.3d at 1183 (“While there appears to be no serious burden on prime contractors, who are obviously compensated for any additional burden occasioned by the employment of DBE subcontractors, at the margin, some non-DBE subcontractors such as *Adarand* will be deprived of business opportunities”); *cf. Northern Contracting II*, at *5 (“Plaintiff has presented little evidence that it [sic] has suffered anything more than minimal revenue losses due to the program.”).

¹⁰³ *See, e.g., Rowe*, 615 F.3d at 254 (prime bidder had no need for additional employees to perform program compliance and need not subcontract work it can self-perform).

¹⁰⁴ *Western States*, 407 F.3d at 995.

¹⁰⁵ *Northern Contracting II*, 2005 U.S. Dist. LEXIS 19868 at 74.

The DBE program regulations recognize these facts and therefore provide remedial benefits not only to firms acting as subcontractors on a project,¹⁰⁶ but also to DBEs seeking prime work.¹⁰⁷ Moreover, utilization of D/M/WBEs as prime firms reduces the need to set contract goals, thereby meeting the test that the agency use race-neutral measures to the maximum feasible extent.

6. Regularly Review the Program

The District should conduct regular reviews of the M/WBE program. Race-based programs must have duration limits and “not last longer than the discriminatory effects it is designed to eliminate.”¹⁰⁸

The absence of a sunset clause and lack of review were factors in the court’s holding that the City of Chicago’s M/WBE Program was no longer narrowly tailored; Chicago’s program was based on 14-year-old information, which while it supported the program adopted in 1990, no longer was sufficient standing alone to justify the City’s efforts in 2004.¹⁰⁹ In contrast, the USDOT DBE Program’s periodic review by Congress has been repeatedly held to provide adequate durational limits.¹¹⁰ Similarly, “two facts [were] particularly compelling in establishing that [North Carolina’s M/WBE program] was narrowly tailored: the statute’s provisions (1) setting a specific expiration date and (2) requiring a new disparity study every 5 years.”¹¹¹

The legal test is the most recent available data.¹¹² How old is too old is not definitively answered, but the District would be wise to analyze data at least once every five or six years.

F. Cases from the Seventh Circuit Court of Appeals

Three cases from the circuit governing Illinois illustrate almost all of these principles, and have provided significant guidance to other circuits and agencies across the country.

¹⁰⁶ 49 C.F.R. § 26.45(a)(1).

¹⁰⁷ 49 C.F.R. § 26.53(g) (“In determining whether a DBE bidder/offeror for a prime contract has met the contractor goal, count the work the DBE has committed to perform with its own forces as well as the work that it has committed to be performed by DBE subcontractors and suppliers.”).

¹⁰⁸ *Adarand III*, 515 U.S. at 238.

¹⁰⁹ *BAGC v. Chicago*, 298 F.Supp.2d at 739. See also *Associated General Contractors of Ohio, Inc. v. Drabik*, 50 F.Supp.2d 741, 747, 750 (S.D. Ohio 1999) (“*Drabik I*”) (“A program of race-based benefits cannot be supported by evidence of discrimination which is now over twenty years old.... The state conceded that it had no additional evidence of discrimination against minority contractors, and admitted that during the nearly two decades the Act has been in effect, it has made no effort to determine whether there is a continuing need for a race-based remedy.”); *Brunet v. City of Columbus*, 1 F.3d 390, 409 (6th Cir. 1993) (fourteen-year-old evidence of discrimination “too remote to support a compelling governmental interest.”).

¹¹⁰ See *Western States*, 407 F.3d at 995.

¹¹¹ *Rowe*, 615 F.3d at 253.

¹¹² *Rothe*, 545 F.3d at 1038-1039.

1. Builders Association of Greater Chicago v. City of Chicago

The City of Chicago relied upon the types and quality of evidence discussed above in establishing its strong basis in evidence for its M/WBE program designed to remedy discrimination against Black-, Hispanic- and women-owned construction firms.¹¹³ However, the program as implemented in 2003, which had not been reviewed since its inception in 1990, was not sufficiently narrowly tailored to meet strict constitutional scrutiny. The court stayed the final order against operation of the Program for construction contracts for six months, to permit the City to review the ruling and adopt a new program.¹¹⁴

The opinion first reviews the historical proof of discrimination against minorities, particularly Blacks, in the Chicago construction industry. While not legally mandated, Chicago was a segregated city and “City government was implicated in that history.” After the election of Harold Washington as the first Black mayor in 1983, several reports focused on the exclusion of minorities and women from City procurement opportunities as well as pervasive employment discrimination by City departments. Mayor Washington imposed an executive order mandating that at least 25 percent of City contracts be awarded to minority-owned businesses and 5 percent to women-owned businesses.

In response to *Croson*, Chicago commissioned a Blue Ribbon Panel to recommend an effective program that would survive constitutional challenge. Based upon the Panel’s Report, and 18 days of hearings with over 40 witnesses and 170 exhibits, Chicago adopted a new program in 1990 that retained the 25 percent MBE and 5 percent WBE goals; added a Target Market, wherein contracts were limited to bidding only by M/WBEs; and provided that larger construction contracts could have higher goals.

The court held that the playing field for minorities and women in the Chicago area construction industry in 2003 was still not level. The City presented a great amount of statistical evidence. Despite the plaintiff’s attacks about over-aggregation and disaggregation of data and which firms were included in the analyses, “a reasonably clear picture of the Chicago construction industry emerged... While the size of the disparities was disputed, it is evident that minority firms, even after adjustment for size, earn less and work less, and have less sales compared to other businesses.” That there was perhaps overutilization

¹¹³ Builders Association of Greater Chicago v. City of Chicago, 298 F. Supp.2d 725 (N.D. Ill. 2003).

¹¹⁴ A similar suit was filed against Cook County’s Program, which was declared unconstitutional in 2000. *Builders Association of Greater Chicago v. County of Cook*, 123 F.Supp.2d 1087 (N.D. Ill. 2000); *aff’d*, 256 F.3d 642 (7th Cir. 2001). In contrast to the City of Chicago, Cook County presented very little statistical evidence and none directed towards establishing M/WBE availability, utilization, economy-wide evidence of disparities, or other proof beyond anecdotal testimony. It also provided no evidence related to narrow tailoring.

of M/WBEs on City projects was not sufficient to abandon remedial efforts, as that result is “skewed by the program itself.”

Further, while it is somewhat unclear whether disparities for Asians and Hispanics result from discrimination or the language and cultural barriers common to immigrants, there were two areas “where societal explanations do not suffice.” The first is the market failure of prime contractors to solicit M/WBEs for non-goals work. Chicago’s evidence was consistent with that presented in other jurisdictions of the effects of the discontinuance or absence of race-conscious programs throughout the country. Not only did the plaintiff fail to present credible alternative explanations for this universal phenomenon but also this result “follows as a matter of economics... [P]rime contractors, without any discriminatory intent or bias, are still likely to seek out the subcontractors with whom they have had a long and successful relationship... [T]he vestiges of past discrimination linger on to skew the marketplace and adversely impact M/WBEs disproportionately as more recent entrants to the industry... [T]he City has a compelling interest in preventing its tax dollars from perpetuating a market so flawed by past discrimination that it restricts existing M/WBEs from unfettered competition in that market.”¹¹⁵

The judge also relied upon the City’s evidence of discrimination against minorities in the market for commercial loans. Even the plaintiff’s experts were forced to concede that, at least as to Blacks, credit availability appeared to be a problem. Plaintiff’s expert also identified discrimination against white females in one data set.

After finding that Chicago met the compelling interest prong, the court held that the City’s program was not narrowly tailored to address these market distortions and barriers because:

- There was no meaningful individualized review of M/WBEs’ eligibility;
- There was no sunset date for the ordinance or any means to determine a date;
- The graduation threshold of \$27.5M was very high and few firms have graduated;
- There was no personal net worth limit;
- The percentages operated as quotas unrelated to the number of available firms;
- Waivers were rarely granted;

¹¹⁵ *BAGC v. Chicago*, 298 F. Supp.2d at 738.

- No efforts were made to impact private sector utilization of M/WBEs; and
- Race-neutral measures had not been promoted, such as linked deposit programs, quick pay, contract downsizing, restricting prime contractors' self-performance, reducing bonds and insurance requirements, local bid preferences for subcontractors and technical assistance.

Chicago is the only city ever to have received a stay to permit revision of its program to meet narrow tailoring. It amended its ordinance to meet the court's 2004 deadline and continues to implement M/WBE subcontracting goals without interruption.

2. Northern Contracting, Inc. v. Illinois Department of Transportation

In this challenge to the constitutionality of the DBE program, the Seventh Circuit Court of Appeals affirmed the district court's trial verdict that the Illinois Department of Transportation's application of Part 26 was narrowly tailored.¹¹⁶ IDOT had a compelling interest in remedying discrimination in the market area for federally-funded highway contracts, and its DBE Plan was narrowly tailored to that interest and in conformance with the regulations.

To determine whether IDOT met its constitutional and regulatory burdens, the court reviewed the evidence of discrimination against minority and women construction firms in the Illinois area. IDOT had commissioned an Availability Study to meet Part 26's requirements. The IDOT Study included a custom census of the availability of DBEs in IDOT's market area, weighted by the location of IDOT's contractors and the types of goods and services IDOT procures. The Study estimated that DBEs comprised 22.77 percent of IDOT's available firms.¹¹⁷ It next examined whether and to what extent there are disparities between the rates at which DBEs form businesses relative to similarly situated non-minority men, and the relative earnings of those businesses. If disparities are large and statistically significant, then the inference of discrimination can be made. Controlling for numerous variables such as the owner's age, education, and the like, the Study found that in a race- and gender-neutral market area the availability of DBEs would be approximately 20.8 percent higher, for an estimate of DBE availability "but for" discrimination of 27.51 percent.

In addition to the IDOT Study, the court also relied upon:

¹¹⁶ *Northern Contracting, Inc. v. Illinois Department of Transportation*, 473 F.3d 715 (7th Cir. 2007) (7th Cir. 2007) ("*Northern Contracting III*"). Ms. Holt authored IDOT's DBE goal submission and testified as IDOT's expert witnesses at the trial.

¹¹⁷ This baseline figure of DBE availability is the "step 1" estimate U.S. DOT grant recipients must make pursuant to 49 CFR §26.45.

- An Availability Study conducted for Metra, the Chicago-area commuter rail agency;
- Expert reports relied upon in *BAGC v. Chicago*;
- Expert reports and anecdotal testimony presented to the Chicago City Council in support of the City's revised M/WBE Procurement Program ordinance;
- Anecdotal evidence gathered at IDOT's public hearings on the DBE program;
- Data on DBE involvement in construction projects in markets without DBE goals;¹¹⁸ and
- IDOT's "zero goal" experiment, where DBEs received approximately 1.5 percent of the total value of the contracts. This was designed to test the results of "race-neutral" contracting policies, that is, the utilization of DBEs on contracts without goals.

Based upon this record, the Court of Appeals agreed with the trial court's judgment that the Program was narrowly tailored. IDOT's plan was based upon sufficient proof of discrimination such that race-neutral measures alone would be inadequate to assure that DBEs operate on a "level playing field" for government contracts.

The stark disparity in DBE participation rates on goals and non-goals contracts, when combined with the statistical and anecdotal evidence of discrimination in the relevant marketplaces, indicates that IDOT's 2005 DBE goal represents a "plausible lower-bound estimate" of DBE participation in the absence of discrimination.... Plaintiff presented no persuasive evidence contravening the conclusions of IDOT's studies, or explaining the disparate usage of DBEs on goals and non-goals contracts.... IDOT's proffered evidence of discrimination against DBEs was not limited to alleged discrimination by prime contractors in the award of subcontracts. IDOT also presented evidence that discrimination in the bonding, insurance, and financing markets erected barriers to DBE formation and prosperity. Such discrimination inhibits the ability of DBEs to bid on prime contracts, thus allowing the discrimination to indirectly

¹¹⁸ *Northern Contracting III*, 473 F.3d at 719 ("Also of note, IDOT examined the system utilized by the Illinois State Toll Highway Authority, which does not receive federal funding; though the Tollway has a DBE goal of 15 percent, this goal is completely voluntary -- the average DBE usage rate in 2002 and 2003 was 1.6 percent. On the basis of all of this data, IDOT adopted 22.77 percent as its Fiscal Year 2005 DBE goal.").

seep into the award of prime contracts, which are otherwise awarded on a race- and gender-neutral basis. This indirect discrimination is sufficient to establish a compelling governmental interest in a DBE program.... Having established the existence of such discrimination, a governmental entity has a compelling interest in assuring that public dollars, drawn from the tax contributions of all citizens, do not serve to finance the evil of private prejudice.¹¹⁹

3. *Midwest Fence, Corp. v. U.S. Department of Justice, Illinois Department of Transportation and Illinois Tollway*

Most recently, the challenge to the DBE regulations, IDOT's implementation of those regulations and its DBE program for state-funded contracts, and to the Illinois Tollway's¹²⁰ separate DBE program was rejected.¹²¹

Plaintiff Midwest Fence is a fencing and guardrail contractor owned and controlled by White males. From 2006-2010, Midwest generated average gross sales of approximately \$18 million per year. It alleged that these programs fail to meet the requirement that they be based on strong evidence of discrimination, and that the remedies are neither narrowly tailored on their face or as applied. In sum, plaintiff's argument was that the agencies lacked proof of discrimination, and it bears an undue burden under the programs as a specialty trade firm that directly competes with DBEs for prime and subcontractors.

The district court granted summary judgment in favor of all defendants on all claims. First, like every prior decision and for the same reasons, the judge held that Part 26 is facially constitutional. Second, IDOT's implementation of the federal regulations was narrowly tailored because it was in conformance with the regulations and its state program, modeled on Part 26, was based upon ample evidence of discrimination as proved through several disparity studies over many years. Third, the Tollway's DBE program "substantially mirrors that of Part 26" and was based on studies similar to those relied upon by IDOT.

Midwest's main objection to the defendants' evidence was that it failed to account for "capacity" when measuring DBE availability and underutilization. However, as is well established, "Midwest would have to come forward with "credible, particularized evidence" of its own, such as a neutral explanation for the disparity, or contrasting statistical data. [citation omitted] Midwest fails to make this showing here."¹²² Midwest offered only conjecture about the defendants' studies supposed failure to account for capacity may or may not have impacted the

¹¹⁹ *Northern Contracting II*, at *82 (internal citations omitted); see *Croson*, 488 U.S. at 492.

¹²⁰ The Tollway is authorized to construct, operate, regulate, and maintain Illinois' system of toll highways. The Tollway does not receive any federal funding to accomplish its goals.

¹²¹ *Midwest Fence, Corp. v. USDOT et al.*, 2015 WL 1396376 (N. D. Ill. March 24, 2015).

¹²² *Id.* at *17.

studies' results. Plaintiff "fail[ed] to provide any independent statistical analysis or other evidence demonstrating actual bias."¹²³

Turning to the Tollway's program, the court found its

method of goal setting is identical to that prescribed by the Federal Regulations, which this Court has already found to be supported by "strong policy reasons." [citation omitted] Although the Tollway is not beholden to the Federal Regulations, those policy reasons are no different here.... [W]here the Tollway Defendants have provided persuasive evidence of discrimination in the Illinois road construction industry, the Court finds the Tollway Program's burden on non-DBE subcontractors to be permissible.... The Tollway's race-neutral measures are consistent with those suggested under the Federal Regulations. See, 49 U.S.C. § 26.51. The Court finds that the availability of these programs, which mirror IDOT's, demonstrate 'serious, good faith consideration of workable race-neutral alternatives.' [citations omitted] In terms of flexibility, the Tollway Program, like the Federal Program, provides for waivers where prime contractors are unable to meet DBE participation goals, but have made good faith efforts to do so.... Because the Tollway demonstrated that waivers are available, routinely granted, and awarded or denied based on guidance found in the Federal Regulations, the Court finds the Tollway Program sufficiently flexible. Midwest's final challenge to the Tollway Program is that its goal-setting process is "secretive and impossible to scrutinize." [reference omitted] However, the Tollway has plainly laid out the two goal-setting procedures it has employed since the program's enactment.... The Tollway Defendants have provided a strong basis in evidence for their DBE Program. Midwest, by contrast, has not come forward with any concrete, affirmative evidence to shake this foundation.¹²⁴

¹²³ *Id.* at *18.

¹²⁴ *Id.* at *22-23.

APPENDIX B

THE DISTRICT'S MINORITY- AND WOMEN-OWNED BUSINESS ENTERPRISE PROGRAM

This Chapter describes the District's Program for Minority- and Women-Owned Business Enterprises ("M/WBE Program"). As discussed in Chapter II, a narrowly tailored program should use race- and gender-neutral measures to the maximum feasible extent, and race- and gender-conscious remedies must be targeted, flexible, realistic and time limited. To meet this standard, we reviewed the District's current efforts.

A. The District's M/WBE Program

1. History of the Program

The District enacted its current M/WBE Program in 2012. The Board of Commissioners reviewed the extensive evidence of discrimination in the Chicago area in opportunities for government contracts. These included:

- The record in the challenge to the City of Chicago's M/WBE program.¹²⁵
- The record in the challenge to the Illinois Department of Transportation's Disadvantaged Business Enterprise Program.¹²⁶
- The 2006 Report entitled "Review of Compelling Evidence of Discrimination Against Minority-and Women-Owned Business Enterprise in the Chicago Area Construction Industry and Recommendations for Narrowly tailored Remedies for Cook County, Illinois."
- The 2006 Disadvantaged Business Enterprises Availability Study for the Illinois State Toll Highway Authority.
- The 2010 Report entitled "The Status of Minority and Women-Owned Business Enterprises Relevant to Construction Activity In and Around Cook County, Illinois."
- The 2010 Congressional Report entitled "Compelling Interest for Race- and Gender-Conscious Federal Contracting Programs: An Update to the May 23, 1996 Review of Barriers to Minority- and Women-Owned Businesses."

¹²⁵ *Builders Association of Greater Chicago v. Cook County*, 123 F.Supp.2d 1087 (N.D. Ill. 2000).

¹²⁶ *Northern Contracting, Inc. v. Illinois Department of Transportation*, 473 F.3d 715 (7th Cir. 2007).

Based upon this record, the District adopted a M/WBE Ordinance that provides raced- and gender-neutral measures as well as contract goals to address the identified barriers.

2. M/WBE Program Administration and Elements

The M/WBE Program is governed by Title 1 Administration, Chapter 8 Forest Preserve District President and Board of Commissioners Rules of Organization and Procedure (“Ordinance”) and is implemented through the Special Provisions provided with District Specifications.

a. Program Administration

The Contract Compliance Administrator (“CCA”), in conjunction with the District’s Purchasing Agent and the Contract Compliance Director of Cook County (“CCD”), administers the Program. The CCA’s duties include:

1. Formulating, proposing and implementing rules and regulations for the development, implementation and monitoring of the Program.
2. Providing information and assistance to M/WBEs and Small Businesses relating to the Program, serving as a liaison to community, contractor, professional and supplier groups, and serving as a liaison to various other associations and organizations.
3. Verifying that Persons interested in participating in the Program have M/WBE certifications from the County of Cook and/or the City of Chicago, and monitoring the directory of Certified M/WBEs maintained by Cook County.
4. Establishing Contract Specific Goals, based upon the availability of M/WBEs to provide the supplies, materials and equipment or services required by the Contract.
5. Monitoring Contracts to evaluate compliance with Contract Specific Goals and commitments.
6. Cooperating with and providing assistance to Using Departments to facilitate participation by M/WBEs in Procurements.
7. Reviewing, approving, and, if necessary, rejecting Utilization Plans for achievement of Contract Specific Goals; evaluating the extent to which goals were achieved.
8. Monitoring contracts to ensure compliance with Section (O) of this Subdivision, Prompt Payment of M/WBEs.

9. Receiving, reviewing, and acting upon complaints and suggestions concerning the Program.
10. Evaluating the effectiveness and utility of the Program.
11. Monitoring the Program and the District's progress towards the Program Goals.
12. Reporting annually to the Board's Contract Compliance committee regarding the administration of the Program and progress toward achieving the Program Goals.
13. Reporting annually to the Board's Contract Compliance committee regarding the administration of the Program and progress toward achieving the Program Goals.

Using Departments work with the CCA in the administration of the Program, including setting Contract Specific Goals and assisting in the identification of M/WBEs.

The District and Cook County have an intergovernmental agreement for the CCD to the District and the CCA with the administration of the District's program.

a. Program Eligibility

To participate in the Program, a firm must be owned, managed and controlled day-to-day by a minority individual or a woman.

Minority Individual means an individual in one of the following groups:

- African-Americans or Blacks, which includes persons having origins in any of the Black racial groups of Africa;
- Hispanic-Americans, which includes persons who are Mexican, Puerto Rican, Cuban, Caribbean, Dominican, Central or South American, regardless of race;
- Native-Americans, which includes persons who are American Indians, Eskimos, Aleuts, or Native Hawaiians; or
- Asian-Americans (persons whose origins are in any of the original peoples of the Far East Asia, Southeast Asia, the islands of the Pacific or the Northern Marianas, or the Indian Subcontinent); or
- Other groups, including, but not limited to, Arab-Americans, found by the District to be socially disadvantaged by having suffered racial or ethnic prejudice or cultural bias within American society, without regard to

individual qualities, resulting in decreased opportunities to compete in the District's Marketplace.

The individual relied upon for program eligibility must also be "economically disadvantaged," defined as a personal net worth less than \$2,000,000.00, excluding the owner's equity in the business seeking certification and in his or her principal residence, indexed annually for the Chicago Metro Area Consumer Price Index, published by the U.S. Department of Labor, Bureau of Labor Standards, beginning January 2008. The current limit is approximately \$2,200,000.

Minority Business Enterprise or MBE mean a Local Small Business, including a sole proprietorship, partnership, corporation, limited liability company, Joint Venture or any other business or professional entity:

- Which is at least 51 percent owned by one or more Minority Individuals, or in the case of a publicly owned business, at least 51 percent of all classes of the stock of which is owned by one or more Minority Individuals;
- Whose management, policies, major decisions and daily business operations are independently managed and Controlled by one or more such Minority Individuals; and
- Which has its principal place of business and a majority of its regular, full-time workforce located within the County's Marketplace.

Woman-owned Business Enterprise or WBE means [sic] a Local Small Business, including a sole proprietorship, partnership, corporation, limited liability company, Joint Venture or any other business or professional entity:

- Which is at least 51 percent Owned by one or more Women, or in the case of a publicly owned business, at least 51 percent of all classes of the stock of which is Owned by one or more Women;
- Whose management, policies, major decisions and daily business operations are independently managed and Controlled by one or more such Women; and
- Which has its principal place of business and a majority of its regular, full-time work force located within the District's Marketplace.

A "Small Business" is defined as annual gross receipts averaged over the preceding five years, that meet the size standards promulgated by the U.S Small Business Administration, 13 C.F.R. Part 121.

A “Local Business” is defined as a business located within the counties of Cook, DuPage, Kane, Lake, McHenry or Will in the State of Illinois which has the majority of its regular full-time work force located in this region.

The District accepts certifications from Cook County.

b. Race- and Gender-Neutral Measures

The Ordinance specifically provides for the development and use of race-and gender-neutral measures to facilitate the participation of all firms in the procurement process. These measures are to include, but need not be limited to the following:

- Establishing schedules for submitting Bids and Quotations with adequate time frames for identifying and contacting M/WBEs qualified to participate in the Procurement;
- Segmenting Procurements to facilitate the participation of MBEs, WBEs and other Small Businesses;
- Providing timely information on contracting procedures, Bid preparation and specific contracting opportunities;
- Holding pre-Bid conferences, where appropriate, to explain the projects and to encourage Contractors to use available qualified M/WBEs;
- Reviewing retainage, bonding and insurance requirements to eliminate unnecessary barriers to contracting with the District;
- Collecting information from all Contractors detailing the Bids or proposals received from all subcontractors for Procurements and the expenditures to M/WBEs;
- At the discretion of the CCA, in cooperation with the Purchasing Agent, periodically entering into a procurement process without Program Goals or Project Specific Goals in order to determine MBE and WBE utilization in the absence of such goals;
- Referring complaints of discrimination to Cook County's Commission on Human Rights, or other appropriate authority, for investigation

d. Outreach Activities

The District participates in several outreach and information events, often in conjunction with Cook County and other local agencies. Interested vendors are directed to access the assistance available from the County’s Office of Contract Compliance (“OCC”), which conducts monthly workshops on how to seek

certification, provides information on assist agencies that provide support to M/WBEs, sends email blasts with important information on activities, bids, etc. to certified firms and other technical assistance.

e. Program Goals

The District has adopted an overall, annual goal of 25 percent participation by MBEs and 10 percent participation by WBEs for non-construction contracts. In addition, the District has set a total goal of 35 percent combined M/WBE participation for professional services and consulting services. For construction contracts, the goals are 24 percent for MBEs and 10 percent for WBEs.

The CCA, in consultation with CCD, the Purchasing Agent and the Using Agency, is to establish contract specific goals based on the availability of sufficient certified MBEs and WBEs for the services required in the procurement. For construction contracts, there must be at least three MBEs and three WBEs certified in the subcontractable scopes of work of the job to set a goal. “No goal shall be treated as a quota nor shall it be used to discriminate against any Person on the basis of race, color, national origin, religion or sex.”

f. Program Compliance Policies and Procedures

The District’s Program is modeled on the Disadvantaged Business Enterprise (“DBE”) Program for U.S. Department of Transportation contracts, contained in 49 C.F.R. Part 26. These include:

- The criteria for determining whether the firm is owned, managed and controlled by a socially and economically disadvantaged minority group member or a woman and is independent and not an affiliate of another business.
- Standards for evaluating joint venture arrangements involving certified firms.
- Challenges to a firm’s eligibility for the Program.
- Counting the participation of certified firms, including as regular dealers and suppliers.
- Standards to determine whether the certified firm is performing a commercially useful function.
- Criteria to evaluate whether a bidder that failed to meet the goal made good faith efforts to do so and is therefore entitled to a waiver or reduction of the goal.

- Standards for substituting a certified firm during contract performance.

All compliance documents, including Utilization Plans that establish that the certified firms are performing a commercially useful function, signed forms from M/WBEs and any good faith efforts documentation, must be submitted with the bid or proposal to be considered responsive to the solicitation.

Some provisions differ between non-construction and construction contracts, reflected in the Ordinance's two Divisions into non-construction contracts and construction contracts. For example, the dollars paid to suppliers are counted differently, there are no comparable provisions governing the substitution of certified firms, etc. There is also no sanctions provision for the non-construction Division of the Ordinance. Both Divisions are to sunset on June 30, 2016.

B. Experiences with the District's Contracting Policies and Procedures

To explore the impacts of race- and gender-neutral contracting policies and procedures and the implementation of the District's M/WBE program, we interviewed 83 individuals about their experiences and solicited their suggestions for changes. We also received written comments. The following are summaries of the topics discussed. Quotations are indented, and have been edited for readability. They are representative of the views expressed during six sessions by participants and one stakeholders meeting.

1. Access to Information and Networks

Most participants were able to access information on upcoming opportunities, albeit with significant efforts. However, several M/WBEs found it difficult to network with the appropriate personnel in the user departments.

[What is very helpful is to] actually get in front of [the decision makers] and do a presentation, that's very valuable.

One problem is accessibility to seeing some of these [agency decision makers]. So they are already working with some primes that are not minority-owned that have access to them. So they know who they are. And I think that's the biggest problem we run into.... But trying to get into the hospitals or into the Forest Preserves we never get that opportunity to come in and introduce ourselves.... It's very difficult to break those barriers.

Outreach for specific larger projects was one approach to facilitating networking.

One of the best experiences that I've gone through that's been related to an MBE, WBE experience was when [the agency] had

shortlisted firms for the expansion at [project name]. Because what was set up was a series of tables where the shortlisted primes were set up and it was basically speed dating with all of the possible MBE, WBEs. Now that process got us on a couple of teams.... And none of our teams made it but it did create opportunities for proposals past that.... It might be an elevator speech but it is time in front of the right people. And that to me was a very important thing.

The speed “dating” was [for] a specific project [which was helpful].

2. Payments

Slow payment from the agency was a major problem reported by prime vendor and subcontractors, majority firms and M/WBEs alike. Small firms were often discouraged from working on District jobs.

I don't even look that hard anymore at Cook County because of the reputation that they have for not paying.

We've been talking about these same issues for many, many years.... Now some of the issues have changed. It used to be that your general contractor held your money. I don't seem to hear that as much as you used to. The problem is with the government agencies.

We had a J[ob] O[rder] C[ontract] contract with Forest Preserve.... [To get paid,] the owner of our company actually ended up calling [President] Toni [Preckwinkle] directly on it and having her actually call someone to be able to make some things happen.... Just no answers, no responses.... The recent JOC project just came up for bid ... and I passed on that.

You really don't need our input to know to do this. You already know it's broke and you already know it doesn't work. So go fix it. No corporation in America can get away with that. Hold yourself accountable.

How come the County can't hire the right people to make sure that their purchasing and their et cetera, their system actually works?

Agencies always say, what can we do to enhance the life of minority and female owned businesses?... They need to pay their bills.

[Slow pay] affects everything, bonding rating and everything else so this is trickledown effect on us smaller guys. It's a killer.

Information about payment the status of individual contracts was difficult to obtain.

There's no information [on the County's website about payments]. It's very hard to navigate.... Why would it be hard to put project information on their website? Why couldn't we go in and see when this draw is due? Why couldn't we see the funding on this project?

Even large firms were frustrated by the delays, and often pay M/WBEs even when they are awaiting payment.

Almost felt like you were bankrolling [the M/WBEs because the agency pays so slowly].

We pay our minority- and women-owned subs before we get paid. We have to or we'd run them out of business.

It's tough on us. I know it's got be tougher on [the M/WBE subcontractors].

The payment process has improved, according to one participant.

[Cook County is] getting much better. Usually it's 30 to 60 days, and not that that's great but it's usually 30 to 60 days.

Change orders after contract award exacerbate payment delays.

We've had more trouble if there's any sort of add service or change order for services. That can take, 6, 8 months by the time it's gone through and gone to the Board [of Commissioners]. That's where most of our issues have been.

The holding of retention until the contract is closed out— often as high as 10 percent of the total contract price— especially burdens smaller firms.

Can't the Forest Preserves or the County reduce the retention to five percent after the work is 50 percent done?

You might be the first one out there with excavation or laying steel or pouring concrete, and they just did a change order for more millwork at the very end as a finish and now everybody else that was there at the beginning is still waiting on five percent retention.

If it's a two-year job and they were done in the first six months there's absolutely no reason to withhold retention on that specific trade.

You need to fight for your retainage and you're halfway through your job or you're three-quarter way through your job and unless you ask, unless you push your contract manager, you don't get it released.... There's a lot of money withheld and sometimes it's not really reasonable.... On a 10 million [dollar] job, it's a lot of money.

I finished a Forest Preserve job in November. I'm still waiting for retention [in June].

Our subs have been paid, you know they've been paid because you have the waivers to show it and if you need anything else we can supply that so why can't we have our retainage reduced and get some of our money?

Because we use a lot of M, W and DBE subcontractors, if they request that they receive some of their retention then we give it to them. Because they won't be able to survive without [it] and we do want to keep the business relationship going. Most of the time, and I was in the field for eight years before I became compliance officer, most of the time we wound up totally paying subcontractors before we got that retention reduced and final paid.

We'll fight for [release of retainage for our subcontractors].... In most cases we'll be able to get it released.

3. Insurance Requirements

Onerous insurance requirements burden small firms seeking work not only as prime vendors but also as subcontractors because of flow down provisions in the prime contractor's contract.

If you're talking about helping the smaller businesses, you either have to help unbundle [projects] but you also have to look at what's the realistic risk [in setting insurance requirements]....Even a number of the medium size architecture firms have to go out and get special projects liability for [County projects]. But I can't tell you how many times I've called my insurance agency going, okay, here we go again. Any way I can get a project policy? Not happening.

4. Program Administration

a. Meeting M/WBE Contract Goals

Most prime contractors and consultants reported that they were able to meet the goals.

[The Director and staff of the Office of Contract Compliance] do a great job [in assisting us to find certified firms].

We haven't really had an issue meeting the goals or finding firms because there are a lot of good people out there.

You do what you're asked, what the contract calls for.

There's certain things that you can do to be proactive. It takes both sides.

We have a very straightforward qualification application that a new subcontractor, MBE or non-MBE [must complete]... Any level. We want to get some background information to make sure that they are capable and qualified to bid the work.... Everybody needs to do their due diligence, to not only scope out the contractor for that specific bid but to do their homework in advance to know a little bit about the company and figure out their capabilities and their limitations and their abilities.

When you find a handful of DBE subs that work well with you, they're the ones you kind of choose to pursue depending on the scope of work.

Projects involving more specialized work or that are larger and more complex present special challenges.

Some trades are tougher than others. Electrical is good. Mechanicals are a little harder though.... There's not many women, minority certified companies in Cook County that can do a larger project.

One barrier that we see with the MBE, WBE market here is as the scale grows of the project and that trade and as the complexity grows, you start to limit the capabilities. And not because they really can't do it but they just don't have the depth of the resources to be able to do that work.... So, when you get a typical 25 and 5 MBE, WBE contract and it's 25 percent of 300 million dollars you start to get into some really tough attainable goals. So we've been able to do it and we've been able to do it by breaking apart bid packages.... When you start to do that though, if you break it apart too much you lose the efficiency and the productivity and really the competitive nature of the job, too. So. there's a balance there.

More outreach efforts were urged by prime contractors and M/WBEs to facilitate introductions, exchange information and promote relationships.

Tell [prime firms and M/WBEs] what's coming up. Have those meetings, places where firms of any size, type or makeup can get together and mingle. I think that's always good.

I do agree with more outreach. Because you start teaming with people who reach you first. And so if you don't know other firms out there and you already start teaming then someone [else] comes [along] ... but you've already committed to work with somebody else.

It's also hard I think for the small firms to get the contact, who should they talk to. You go to an outreach event, there's 8 million

people around, you're waiting in line, you get one minute. A lunch is sometimes too much. Somebody suggested speed dating for firms.

Many general contractors felt that they would not receive a waiver if they were unable to meet the goal despite their good faith efforts to do so.

There's a lot of talk that well, it's a goal but it's not a goal. It's a requirement.

They won't take a waiver.

We always hit the goal. And we don't submit a waiver. We will not because we know we're going to get thrown out.

We do not bid if we can't meet the goal.

If there's no way you can [meet the goal] we oftentimes just take a pass.

A material supplier reported that his firm has sometimes been able to obtain partial waivers. Even so, the Program is burdensome and focused on the wrong objectives.

We have received partial waivers. We always ask for a waiver. I've got more letters requesting waivers than Bayer has aspirin. But the thing that bothers me ... is our company going back to my father who started the company, we have been really very community oriented. I don't think that there has ever been a church or a non-profit in our immediate area even through the recession that the worst that we've offered is to be able to sell them at cost. We're in everybody's program book at their churches and which what the other, been on the board of community centers. And there is no place on any MBE form for community service, community participation. And to me that's a hell of a lot more important than bringing in somebody who doesn't do anything. And we've had that. We've had companies that went bankrupt, we've had companies where we've got to spend money on legal fees. And they don't do what they're supposed to do and we've got to take over for them.... Our experience has been all bad.

There was strong consensus that the District should set goals on a contract-by-contract basis rather than generally applying the same goals regardless of the scopes of work of the project.

[By setting a MBE goal on highly specialized work,] they actually created a situation whereby money was wasted and the damage was horrible as a result of this.... It's money spent to actually make things worse. The Forest Preserve of Cook County will not hire them directly to do work on their property.... [We] have to go out

there with our guys and manage their work.... You can't hand these guys a work order and say, get it done. Yet, we have to pay them 35 percent of what we do.... We're the ones at risk.... They get 35 percent of our contracts. For doing what?

They really have to look at it on a project-by-project basis from the size, magnitude and complexity before they set a percentage.

Some jobs you need to look at what work might be available to subcontract to DBEs. So you can't just *carte blanche* say, well we're going to always do 35 percent. It depends on what kind of job it is.

[If the] goal is to give 35 percent of all Forest Preserve dollars that are subcontracted out to MBEs and WBEs, [then the District should] hire them and manage them.

Requiring all compliance information with the bid was seen as strangling general contractors' abilities to work with new M/WBEs or fully explore the capabilities of M/WBEs. A somewhat longer period to submit M/WBE compliance paperwork was urged to increase opportunities for M/WBEs and lower prices to the taxpayers.

It would be more economical for the County and the Forest Preserve District if they didn't have those sorts of barriers to say I need paperwork from everybody to be submitted on bid day to go with it. Because what happens if the bid's due at 11:00 in the morning and at 10:45 I get a lower number than what I had on my general estimate sheet and it's WBE or MBE or whatever it is and it's a legitimate number. It's too bad; it's too late. My number's already with the guy going downtown to be turned in to the County and he doesn't have enough time to pull out a fresh bid form and scratch in now we're using XYZ. We don't have the Schedule C [evidencing the commitment to a certified firm] to back it up. So in effect, the price that the County got was good from the day before in the afternoon when we started putting our bid together or the morning of at eight in the morning, three hours before bid time, and in the meantime two or three or four more other low numbers have come in that would have saved the County some money in the end would have lowered that project value by X amount.

A certified firm agreed.

I might be the only [M/WBE] contractor that feels this way but I thought that stupid put your papers in with your bid was the dumbest thing I've ever heard in my life. On the DOT stuff all it did was force the prime contractors on DOT work to say to all of us people that are bidding, I want your paperwork the day before. So

then we sit there. The bids go in, they read the low bidders and now we wait. We don't know. We have no idea who they're using. Because they have collected paperwork from everybody in the whole world. At least before we would know that they would call us on Monday and say, hey I used your number, I need to write you [in], I need to get your paperwork, so our angst wasn't as long. So instead of pushing the negotiations if you want to call them [that], to before, to after the job, now they've pushed them to the front of the job. So what's the difference?

Some general contractors stated that M/WBEs' prices are often higher and suggested that the agencies calculate the costs of using certified firms instead of White-male owned businesses.

All agencies should start tracking how much the program is costing them. Submit a bid with the 35 percent DBE and then submit one without 35 percent DBE and tell me how much DBE you're going to provide in that lower number.... Especially on these 35 percent ones.

A lot of times you have to pay that same premium in order to meet a mandated goal because you could otherwise do the work but you would have to go and get somebody else to do that same work that you could do and have to mark it up and a lot of times it's because it's an MBE and unfortunately them or the W may know that hey, I don't have much competition so I can make a little bit more profit on my end. So I don't think there's a right answer as to the incremental steps.

The use of lump sum, low bid procurement methods makes it more difficult to meet goals and be the low bidder. Alternative delivery methods such as construction manager, construction manager at risk, design-build, etc., were recommended to ease these pressures.

It's the procurement method.

There's no [M/WBE] requirement in the private sector. That's all purely best effort. If you get it great, if not, whatever. But most of the private work isn't lump sum which County, city work, all that is lump sum bid. So

b. Monitoring of Compliance with MWBE Contractual Obligations

Several M/WBE subcontractors reported that there is insufficient monitoring of the prime vendor's compliance with its M/WBE contractual commitments.

If there's no County oversight on this project, who's running the show?... I don't see onsite County representation.

[We complete the] online monitoring report that we have to acknowledge or verify how much we've been paid. We put zeroes in on so many and I don't know what happens, I don't know who sees them. Someone's saying they paid us \$20,000 and we're saying we've never heard of these people. And it's submitted and it goes nowhere.

One participant stated she eventually contacted Commissioners to resolve her problem.

The G[eneral] C[ontractor] did not want me in there [on a County project]. They wanted their favorite son in there. And they're doing their darnedest to make this a hard job and it should not be.... We were told to be done with the job on Friday. We were called on Tuesday to be there. And there is no way this job was going to be done. Nothing was mobilized, no materials. We were supposed to be there the 15th. They weren't ready for us. So then they said, okay, come now do it. And it's almost like we were set up to fail. Well I've never been tossed off a job and that's my reputation and I don't appreciate it.... I have a couple Commissioners involved in it and it's getting taken care of.

The County's new web-based reporting system has eased the burdens of providing information regarding compliance.

The new web-based [contract compliance] program, it's a lot easier. So when I was the [firm's] program manager at C[hicago] P[ublic] S[chools] they used the same one, C[hicago] T[ransit] A[uthority], so it's a lot easier.

5. Mentor-Protégé Relationships

There was support among M/WBEs and non-M/WBEs for a mentor-protégé program to provide technical assistance and other resources to increase M/WBEs' capacities.

I think it's a good idea. We have never been involved in one but I like the concept of it.

Some general contractors provide informal supportive services to M/WBE subcontractors.

[Our very large firm has] highly suggested to some of the MBE, WBE companies that we continually work with ... that are getting bigger, that are being very successful, that they themselves along with us need to develop a mentoring program..... So we've talked about on future proposals is yes, utilizing some of the people that

we always use, but also some of the smaller firms, and then collectively in a pyramid structure work with those companies and mentor them to give them opportunities.

[Our relationships have been] more informal but they're more teaming and working projects together and just honest conversations. And you can't start right before the bid. We've developed some of these two, three years before we gave them the first job. And so you have to know their capabilities and see where they're weak and then work with them even without [a formal program]. And those that are willing to do that end up being really good business partners because they're looking at it longer term, too. But we haven't had as much luck with formal relationships. And a lot of the MBEs, they've been burnt before by majority firms that promised to do things that never came through. So they're a little skeptical, too. So the best way is if you can create a relationship, understand their strength and weaknesses, get a job under your [belt]. And that's where you learn so we'll sometimes take a risk on the first job and sometimes it works, sometimes it doesn't.

We have what we call a Strategic Partnership Program which is essentially a capacity building program that we teach for small businesses, MBEs, WBEs..... And the goal really is to take, whether it's trade subs or general contractors, but anybody who qualifies as a small business to teach them really how to do everything from pursuing work, all the way through the estimating components, the scheduling, the how to respond to bids, how to respond as a sub, how to respond to different elements of our work. So, it's been received very favorably. We've had numerous graduates across the country who have gone on to really grow their own businesses and be able to excel in their trade.

Several prime contractors and consultants reported good experiences with mentor protégé programs for other agencies, such as for the Illinois Tollway and the Illinois Department of Transportation.

We've been with IDOT and the Tollway doing mentor-protégé [relationships]. So because [of that experience] I can understand the benefit.

We've done some Mentor-Protégé Programs. We've tried to build [M/WBEs' capacities] up but that's probably our biggest challenge.... We've taken some good electricals and we've cross-trained them into being lighting retrofit companies.... They have the skills. They just haven't had that experience.

C. Conclusion

The Program review and the business owner and stakeholder interviews suggest that the District's Program could be enhanced to make it more effective and less burdensome. These include; increased outreach to M/WBEs, with a focus on specific projects; providing access to District decision makers, especially for consultants; ensuring that the District pays its vendors within 30 days; releasing retainage on a rolling basis; reducing unnecessary insurance requirements; setting goals on a contract-by contract basis; ensuring that the waiver process is well disseminated and understood; permitting a very short window to submit all compliance forms such as letters of intent from M/WBEs; and adopting a mentor-protégé initiative.

APPENDIX C

UTILIZATION, AVAILABILITY AND DISPARITY ANALYSIS FOR THE DISTRICT

A. Contract Data Sources and Sampling Method

We analyzed purchase order and contract data for July 2009 through July 2014. The Final File for analysis contained 86 contracts, with a total award amount of \$26,138,668. This represents 70% of all dollars in the data. The file of contracts was developed through the following steps:

- From the initial pool of 153 contracts, we eliminated 7 duplicate listings of contracts, contracts that we determined did not fit the scope of the study, etc.
- Of the remaining 146 contracts, 130 were chosen as a representative sample.

We contacted the prime firms in an effort to obtain complete contract records for these 130 contracts with a total award amount of \$37,398,696. We successfully collected data for 86 of the 130 contracts representing 70% of the contract award dollars, or \$26,138,668.

This File was used to determine the geographic market area for the Study; to estimate the utilization of M/WBEs on those contracts; and to calculate M/WBE availability in the Forest Preserve District's marketplace.

B. The District's Product and Geographic Markets

1. The District's Product Market

A defensible disparity study must determine empirically the industries that comprise the agency's product or industry market. The accepted approach is to analyze those detailed industries, as defined by 6-digit North American Industry, Classification System ("NAICS") codes,¹²⁷ that make up at least 75 percent of the prime contract and subcontract payments for the Study period.¹²⁸ However, for this Study, we went further, and applied a "90/90/90" rule, whereby we analyzed NAICS codes that cover over 90 percent of the total contract dollars; over 90 percent of the prime contract dollars; and over 90 percent of the subcontract

¹²⁷ www.census.gov/eos/www/naics.

¹²⁸ "Guidelines for Conducting a Disparity and Availability Study for the Federal DBE Program," Transportation Research Board of the National Academy of Sciences, NCHRP Report, Issue No. 644, 2010, pp. 50-51 ("National Disparity Study Guidelines").

dollars. We took this approach so that we could be assured that we provide an in depth picture of the District’s activities.

Tables C1 through C3 present the NAICS codes used to define the product market when examining contracts disaggregated by level of contract (*i.e.*, was the firm receiving the contract a prime vendor or a subcontractor); the label for each NAICS code; and the industry percentage distribution of the number of contracts and spending across NAICS codes and funding source. The results in Tables C1 through C3 present the District’s *unconstrained* product market, which will be later constrained by the geographic market area, discussed below.

Table C1: Industry Percentage Distribution of All Contracts by Dollars Paid, All Sectors

NAICS	NAICS Code Description	PCT Total Contract Dollars	Cumulative PCT Total Contract Dollars
221122	Electric Power Distribution	34.07%	34.07%
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	14.20%	48.27%
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	11.57%	59.83%
238210	Electrical Contractors and Other Wiring Installation Contractors	10.81%	70.64%
324110	Petroleum Refineries	5.26%	75.90%
237310	Highway, Street, and Bridge Construction	3.38%	79.28%
238220	Plumbing, Heating, and Air-Conditioning Contractors	2.34%	81.63%
561730	Landscaping Services	2.15%	83.78%
541620	Environmental Consulting Services	2.03%	85.81%
561621	Security Systems Services (except Locksmiths)	1.99%	87.80%
236220	Commercial and Institutional Building Construction	1.69%	89.49%
541330	Engineering Services	1.61%	91.09%
TOTAL			100.0%

Source: CHA analysis of District data.

Table C2: Industry Percentage Distribution of Prime Contracts by Dollars Paid, All Sectors

NAICS	NAICS Code Description	PCT Total	Cumulative
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		Contract Dollars	PCT Total Contract Dollars
221122	Electric Power Distribution	31.29%	31.29%
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	19.23%	50.53%
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	15.75%	66.28%
324110	Petroleum Refineries	7.16%	73.43%
238210	Electrical Contractors and Other Wiring Installation Contractors	5.49%	78.92%
237310	Highway, Street, and Bridge Construction	4.28%	83.20%
541620	Environmental Consulting Services	2.75%	85.95%
561730	Landscaping Services	2.61%	88.56%
236220	Commercial and Institutional Building Construction	2.27%	90.83%
TOTAL			100.0%

Source: CHA analysis of District data

Table C3: Industry Percentage Distribution of Subcontracts by Dollars Paid, All Sectors

NAICS	NAICS Code Description	PCT Total Contract Dollars	Cumulative PCT Total Contract Dollars
221122	Electric Power Distribution	41.74%	41.74%
238210	Electrical Contractors and Other Wiring Installation Contractors	25.52%	67.25%
238220	Plumbing, Heating, and Air-Conditioning Contractors	8.82%	76.08%
561621	Security Systems Services (except Locksmiths)	7.49%	83.57%
238910	Site Preparation Contractors	1.54%	85.11%
454310	Fuel Dealers	1.44%	86.55%
541330	Engineering Services	1.01%	87.56%
321114	Wood Preservation	0.92%	88.48%
237310	Highway, Street, and Bridge Construction	0.92%	89.40%
561730	Landscaping Services	0.90%	90.30%
TOTAL			100.0%

Source: CHA analysis of District data.

2. The District’s Geographic Market

The courts require that a local government limit the reach of its race- and gender-conscious contracting program for contracts it funds to its market area.¹²⁹ While it may be that the District’s jurisdictional boundaries comprise its market area, this element of the analysis must be empirically established.¹³⁰

To determine the relevant geographic market area, we applied the rule of thumb of identifying the firm locations that account for at least 75 percent of contract and subcontract dollar payments in the contract data file.¹³¹ Location was determined by ZIP code as listed in the file and aggregated into counties as the geographic unit.

As presented in Table C4, spending in Illinois accounted for almost 75 percent of all contract dollars paid in the District’s unconstrained product market. Table C5 presents data on how the contract dollars were spent across Illinois counties.

Table C4: Distribution of Contracts in the District’s Product Market, by State

State	PCT of Total Contract Dollars Paid		State	PCT of Total Contract Dollars Paid
IL	74.77%		FL	0.27%
WI	24.94%		IN	0.02%
			TOTAL	100.00%

Source: CHA analysis of District data.

Table C5: Distribution of Contracts in the District’s Product Market within Illinois, by County

County	PCT of Total Contract Dollars Paid		County	PCT of Total Contract Dollars Paid
Cook	72.007%		Winnebago	0.360%
Lake	23.508%		McHenry	0.049%
Will	2.895%		Dekalb	0.044%
Grundy	0.555%		Kane	0.026%
Dupage	0.551%		Kendall	0.004%

¹²⁹ *City of Richmond v. J.A. Croson Co.*, 488 U.S. 469, 508 (1989) (Richmond was specifically faulted for including minority contractors from across the country in its program based on the national evidence that supported the USDOT DBE program).

¹³⁰ *Concrete Works of Colorado, Inc. v. City and County of Denver*, 36 F.3d 1513, 1520 (10th Cir. 1994) (to confine data to strict geographic boundaries would ignore “economic reality”).

¹³¹ National Disparity Study Guidelines, p. 49.

			TOTAL	100.00%
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Source: CHA analysis of District data.

C. The District’s Utilization of M/WBEs in Its Market Areas¹³²

The next essential step was to determine the dollar value of the District’s utilization of M/WBEs in its geographic and constrained product market areas, as measured by payments to prime firms and subcontractors and disaggregated by race and gender. Because the agency was unable to provide us with full records for payments to prime contractors and subcontractors other than firms certified as M/WBEs, we contacted the prime vendors to request that they describe in detail their contract and subcontracts, including race, gender and dollar amount paid to date. We used the results of this extensive contract data collection process to assign minority or female status to the ownership of each firm in the contract data file.

Table C6 presents data on the total contract dollars paid by the District for each NAICS code and the share the contract dollars comprise of all industries.

Table C6: NAICS Code Distribution of Contract Dollars, All Sectors

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	\$12,842,431	20.61%
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	\$10,462,310	16.79%
221122	Electric Power Distribution	\$10,025,624	16.09%
238210	Electrical Contractors and Other Wiring Installation Contractors	\$9,777,147	15.69%
324110	Petroleum Refineries	\$4,753,674	7.63%
237310	Highway, Street, and Bridge Construction	\$3,059,943	4.91%
238220	Plumbing, Heating, and Air-Conditioning Contractors	\$2,101,060	3.37%
561730	Landscaping Services	\$1,947,205	3.13%
541620	Environmental Consulting Services	\$1,834,338	2.94%
561621	Security Systems Services (except Locksmiths)	\$1,799,818	2.89%

¹³² While Sections C and D present data on utilization and availability for contracts aggregated to the level of all sectors, Appendix K presents this data disaggregated into key sub-sectors: Construction, Construction-related Services, Goods, and Other Services.

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars
236220	Commercial and Institutional Building Construction	\$1,526,188	2.45%
541330	Engineering Services	\$1,455,005	2.34%
238910	Site Preparation Contractors	\$376,768	0.60%
454310	Fuel Dealers	\$345,715	0.55%
TOTAL		\$62,307,227	100.00%

Source: CHA analysis of District data.

Tables C7a through C7d present the paid contract dollars (total dollars and share of total dollars) by NAICS codes for all industries, this time disaggregated by race and gender.

Table C7a: Distribution of Contract Dollars by Race and Gender, All Sectors (total dollars)

NAICS	Black	Hispanic	Asian	Native American	White Women	Non-M/WBE
221122	\$10,025,624	\$0	\$0	\$0	\$0	\$0
236220	\$0	\$0	\$161,538	\$0	\$0	\$1,364,650
237310	\$0	\$10,889	\$0	\$0	\$72,815	\$2,976,240
238210	\$3,336,884	\$1,260,498	\$0	\$0	\$27,459	\$5,152,306
238220	\$0	\$0	\$0	\$0	\$28,438	\$2,072,622
238910	\$0	\$0	\$19,400	\$0	\$0	\$357,368
324110	\$4,753,674	\$0	\$0	\$0	\$0	\$0
423430	\$0	\$0	\$10,462,310	\$0	\$0	\$0
423610	\$0	\$66,500	\$0	\$0	\$0	\$12,775,931
454310	\$0	\$0	\$0	\$0	\$0	\$345,715
541330	\$99,489	\$100,361	\$27,473	\$0	\$5,638	\$1,222,045
541620	\$0	\$0	\$0	\$0	\$3,848	\$1,830,491
561621	\$0	\$0	\$0	\$0	\$0	\$1,799,818
561730	\$0	\$476,847	\$123,372	\$0	\$150,250	\$1,196,736
Total	\$18,215,670	\$1,915,095	\$10,794,093	\$0	\$288,446	\$31,093,923

Source: CHA analysis of District data.

**Table C7b: Distribution of Contract Dollars by Race and Gender, All Sectors
(share of total dollars)**

NAICS	Black	Hispanic	Asian	Native American	White Women	Non-M/WBE
221122	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%
236220	0.00%	0.00%	10.58%	0.00%	0.00%	89.42%
237310	0.00%	0.36%	0.00%	0.00%	2.38%	97.26%
238210	34.13%	12.89%	0.00%	0.00%	0.28%	52.70%
238220	0.00%	0.00%	0.00%	0.00%	1.35%	98.65%
238910	0.00%	0.00%	5.15%	0.00%	0.00%	94.85%
324110	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%
423430	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%
423610	0.00%	0.52%	0.00%	0.00%	0.00%	99.48%
454310	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
541330	6.84%	6.90%	1.89%	0.00%	0.39%	83.99%
541620	0.00%	0.00%	0.00%	0.00%	0.21%	99.79%
561621	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
561730	0.00%	24.49%	6.34%	0.00%	7.72%	61.46%
Total	29.24%	3.07%	17.32%	0.00%	0.46%	49.90%

Source: CHA analysis of District data.

**Table C7c: Distribution of Contract Dollars by Race and Gender, All Sectors
(M/WBE, Non-M/WBE, Total)
(total dollars)**

NAICS	MBE	M/WBE	Non-M/WBE	Total
221122	\$10,025,624	\$10,025,624	\$0	\$10,025,624
236220	\$161,538	\$161,538	\$1,364,650	\$1,526,188
237310	\$10,889	\$83,703	\$2,976,240	\$3,059,943
238210	\$4,597,382	\$4,624,842	\$5,152,306	\$9,777,147
238220	\$0	\$28,438	\$2,072,622	\$2,101,060
238910	\$19,400	\$19,400	\$357,368	\$376,768
324110	\$4,753,674	\$4,753,674	\$0	\$4,753,674
423430	\$10,462,310	\$10,462,310	\$0	\$10,462,310
423610	\$66,500	\$66,500	\$12,775,931	\$12,842,431
454310	\$0	\$0	\$345,715	\$345,715
541330	\$227,322	\$232,960	\$1,222,045	\$1,455,005
541620	\$0	\$3,848	\$1,830,491	\$1,834,338
561621	\$0	\$0	\$1,799,818	\$1,799,818
561730	\$600,219	\$750,469	\$1,196,736	\$1,947,205
Total	\$30,924,858	\$31,213,304	\$31,093,923	\$62,307,227

Source: CHA analysis of District data.

**Table C7d: Distribution of Contract Dollars by Race and Gender, All Sectors
(M/WDBE, Non-M/WBE, Total)
(share of total dollars)**

NAICS	MBE	M/WBE	Non-M/WBE	Total
221122	100.00%	100.00%	0.00%	100.00%
236220	10.58%	10.58%	89.42%	100.00%
237310	0.36%	2.74%	97.26%	100.00%
238210	47.02%	47.30%	52.70%	100.00%
238220	0.00%	1.35%	98.65%	100.00%
238910	5.15%	5.15%	94.85%	100.00%
324110	100.00%	100.00%	0.00%	100.00%
423430	100.00%	100.00%	0.00%	100.00%
423610	0.52%	0.52%	99.48%	100.00%
454310	0.00%	0.00%	100.00%	100.00%
541330	15.62%	16.01%	83.99%	100.00%
541620	0.00%	0.21%	99.79%	100.00%
561621	0.00%	0.00%	100.00%	100.00%
561730	30.82%	38.54%	61.46%	100.00%
Total	49.63%	50.10%	49.90%	100.00%

Source: CHA analysis of District data.

D. The Availability of Minority- and Women-Owned Business Enterprises in the District’s Markets

1. Methodological Framework

Estimates of the availability of minority- and female-owned firms in the District’s market area are a critical component of the analysis of possible barriers to equal opportunities to participate in the agency’s contracting activities. These availability estimates are compared to the utilization percentage of dollars received by M/WBEs to examine whether these firms receive parity.¹³³ Availability estimates are also required to set narrowly tailored contract goals.

We applied the “custom census” approach to estimating availability. As recognized by Illinois courts and the National Model Disparity Study

¹³³ For our analysis, the term “DBE” includes firms that are certified by the Illinois Unified Certification Program and firms that are not certified. As discussed in Chapter II, the inclusion of all minority- and female-owned businesses in the pool casts the broad net approved by the courts that supports the remedial nature of the programs. See *Northern Contracting, Inc. v. Department of Transportation*, 473 F.3d 715, 723 (7th Cir. 2007) (The “remedial nature of the federal scheme militates in favor of a method of DBE availability calculation that casts a broader net.”).

Guidelines,¹³⁴ this methodology is superior to the other methods for at least four reasons.

- First, it provides an internally consistent and rigorous “apples to apples” comparison between firms in the availability numerator and those in the denominator. Other approaches often have different definitions for the firms in the numerator (*e.g.*, certified M/WBEs) and the denominator (*e.g.*, registered vendors).
- Next, by examining a comprehensive group of firms, it “casts a broader net” beyond those known to the agency. As recognized by the Seventh Circuit, this comports with the remedial nature of contracting affirmative action programs by seeking to bring in businesses that have historically been excluded. A custom census is less likely to be tainted by the effects of past and present discrimination than other methods, such as bidders lists, because it seeks out firms in the agency’s markets areas that have not been able to access its opportunities.
- Third, this approach is less impacted by variables affected by discrimination. Factors such as firm age, size, qualifications and experience are all elements of business success where discrimination would be manifested. Most courts have held that the results of discrimination— which impact factors affecting capacity— should not be the benchmark for a program designed to ameliorate the effects of discrimination. They have acknowledged that minority and women firms may be smaller, newer, and otherwise less competitive than non-DBEs because of the very discrimination sought to be remedied by race-conscious contracting programs. Racial and gender differences in these “capacity” factors are the *outcomes* of discrimination and it is therefore inappropriate as a matter of economics and statistics to use them as “control” variables in a disparity study.¹³⁵
- Fourth, it has been upheld by every court that has reviewed it, including in the successful defenses of the Illinois Tollway’s DBE program,¹³⁶ the

¹³⁴ National Disparity Study Guidelines, pp.57-58.

¹³⁵ For a detailed discussion of the role of capacity in disparity studies, see the National Disparity Study Guidelines, Appendix B, “Understanding Capacity.”

¹³⁶ *Midwest Fence, Corp. v. U.S. Department of Transportation et al*, 1:10-cv-05627 (N. Dist. Ill., March 24, 2015).

Illinois Department of Transportation's DBE program,¹³⁷ and the M/WBE construction program for the City of Chicago.¹³⁸

2. Estimation of M/WBE Availability

To conduct the custom census for this study, we took the following steps:

1. Created a database of representative, recent, and completed stated contracts;
2. Identified the District's relevant geographic market by counties;
3. Identified the District's relevant product market by 6-digit NAICS codes;
4. Counted all businesses in the relevant markets using Dun & Bradstreet/Hoovers databases;
5. Identified listed minority-owned and female-owned businesses in the relevant markets; and
6. Assigned ownership status to all other firms in the relevant markets.

As described in sections B and C of this Appendix, we first determined the District's market area and its utilization of firms by 6-digit NAICS codes, aggregated industries and total dollars spent. Based on these results, the share of total dollars spent in each NAICS code for firms in the market area was used to create the overall M/WBE availability estimate for each NAICS code, the availability estimates for each aggregated industry and the availability estimates for all industries.

We purchased the firm information from Hoovers for the firms in the NAICS codes located in the District's market area. Hoovers, a Dun & Bradstreet company, maintains a comprehensive, extensive and regularly updated listing of all firms conducting business. The database includes a vast amount of information on each firm, including location and detailed industry codes, and is the broadest publicly available data source for firm information.

In past years, the data from Hoovers (then Dun & Bradstreet) contained detailed information on the racial identity of the owner(s) of firm. However, recently Hoovers changed its practice and currently, the data simply identify a firm as

¹³⁷ *Northern Contracting, Inc. v. Illinois Department of Transportation*, 473 F.3d 715 (7th Cir. 2007).

¹³⁸ *Builders Association of Greater Chicago v. City of Chicago*, 298 F. Supp.2d 725 (N.D. Ill. 2003).

being minority-owned.¹³⁹ This change required us to revise our approach to determining the racial identity of firms' ownership so as to provide narrowly tailored and accurate analyses concerning possible disparity in an agency's contracting practices.

To provide race detail and improve the accuracy of the race and sex assignments, we created a Master D/M/WBE Directory that combined the results of an exhaustive search for directories and other lists containing information about minority and women-owned businesses. This included the Illinois Unified Certification Program; City of Chicago; Cook County; Illinois Department of Central Management Services; and many others. In total, we contacted 119 organizations for this Study. The resulting list of minority businesses is comprehensive and, provides data to supplement the Hoovers data base by disaggregating the broad category of "minority-owned" into specific racial groupings. The list of these groups is provided in Appendix A.

We used information from the Master Directory to estimate the specific racial identity of firms in the Hoovers database that are listed as minority-owned. The process involved the following steps:

1. Sort Hoovers by the 6-digit NAICS codes that comprise the District's product market area;
2. Identify the number of minority-owned firms in these NAICS codes;
3. Sort the Master Directory by each 6-digit NAICS code in the District's product market area;
4. Determine the number of firms in each NAICS code that are minority owned (some firms in the Master Directory are woman-owned firms);
5. Determine the percentage of the minority-owned firms that are owned by:
 - a. Blacks
 - b. Hispanics
 - c. Asians
 - d. Native Americans; and
6. Apply these percentages to the number of minority-owned firms in Hoovers.

¹³⁹ The variable is labeled: "Is Minority Owned" and values for the variable can be either "yes" or "no".

Below is an example of how this process works after Hoovers and the Master Directory have been sorted and the number of minority-owned firms in each NAICS code has been identified in Hoovers:

1. Hoovers data base (basic counts in original)

NAICS	Is Minority Owned	Total Firms (Overall)
99999	200	2000

2. Master Directory (basic count in original)

NAICS	Black	Hispanic	Asian	Native American	Total
99999	40	20	4	16	80

3. Master Directory (percentages)

NAICS	Black	Hispanic	Asian	Native American	Total
99999	50%	25%	5%	20%	100%

4. Hoovers data base (with Master Directory percentages applied)

NAICS	Black	Hispanic	Asian	Native American	Is Minority-Owned	Total Firms (Overall)
99999	100	50	10	40	200	2000

An important element to determining availability is to properly assign a race and gender label to each firm owner. As discussed above, we took the answers that Hoovers provides to two broad questions (“Is the firm minority-owned” and “Is the firm female-owned”) and disaggregated the responses to the “minority owned” question into specific racial categories. However, another concern is that firm ownership has been racially misclassified. There can be three sources of the misclassification: 1. A firm that has been classified as non-M/WBE owned is actually M/WBE owned. 2. A firm that has been classified as M/WBE owned is actually non-M/WBE owned. 3. A firm that has been classified as a particular type of M/WBE firm (e.g., Black) is actually another type of M/WBE firm (e.g., Hispanic).

Based upon the results of these classifications and further assignments, we estimated the availability of M/WBEs as a percentage of total firms. M/WBE unweighted availability is defined as the number of M/WBEs divided by the total number of firms in the District’s market area.

Table C8 presents data on the unweighted availability by race and gender and by NAICS codes for all industries in the product market.

Table C8: Unweighted Availability, All Sectors

NAICS	Black	Hispanic	Asian	Native American	White Women	M/WBE	Non-M/WBE	Total
221122	8.8%	0.0%	5.9%	0.0%	8.8%	23.5%	76.5%	100.0%
236220	8.0%	5.9%	4.1%	0.4%	10.6%	29.0%	71.0%	100.0%
237310	9.4%	8.2%	2.4%	0.2%	11.8%	32.0%	68.0%	100.0%
238210	6.2%	2.6%	2.0%	0.2%	11.3%	22.2%	77.8%	100.0%
238220	2.3%	1.3%	0.6%	0.0%	5.6%	9.8%	90.2%	100.0%
238910	4.5%	3.8%	1.3%	0.3%	9.8%	19.8%	80.2%	100.0%
324110	6.2%	1.6%	3.2%	0.1%	3.7%	14.8%	85.2%	100.0%
423430	5.4%	2.8%	5.3%	0.1%	11.0%	24.6%	75.4%	100.0%
423610	3.0%	2.1%	1.5%	0.0%	11.6%	18.3%	81.7%	100.0%
454310	0.2%	0.1%	0.1%	0.0%	2.5%	2.9%	97.1%	100.0%
541330	5.7%	3.8%	7.6%	0.2%	8.3%	25.6%	74.4%	100.0%
541620	6.4%	2.4%	2.6%	0.1%	14.5%	26.0%	74.0%	100.0%
561621	4.2%	3.0%	2.0%	0.1%	7.5%	16.9%	83.1%	100.0%
561730	2.4%	2.1%	0.7%	0.0%	5.9%	11.1%	88.9%	100.0%
TOTAL	4.6%	3.0%	2.4%	0.1%	8.5%	18.5%	81.5%	100.0%
NAICS	Black	Hispanic	Asian	Native American	White Women	M/WBE	Non-M/WBE	Total
236220	8.90%	7.19%	3.91%	0.17%	9.41%	29.58%	70.42%	100.00%
237110	4.58%	6.03%	3.24%	0.04%	13.89%	27.78%	72.22%	100.00%
237310	7.50%	10.31%	3.20%	0.05%	8.50%	29.56%	70.44%	100.00%
237990	4.23%	1.88%	2.57%	0.02%	10.87%	19.57%	80.43%	100.00%
238110	6.47%	5.82%	1.43%	0.05%	7.21%	20.98%	79.02%	100.00%
238120	11.12%	9.22%	1.39%	0.06%	17.95%	39.74%	60.26%	100.00%
238130	2.83%	2.56%	0.74%	0.15%	3.79%	10.07%	89.93%	100.00%
238140	4.59%	3.51%	1.07%	0.04%	7.50%	16.70%	83.30%	100.00%
238160	2.58%	1.86%	0.93%	0.17%	3.79%	9.33%	90.67%	100.00%
238210	4.80%	2.85%	1.56%	0.04%	10.63%	19.87%	80.13%	100.00%
238220	2.52%	1.73%	0.72%	0.03%	5.05%	10.04%	89.96%	100.00%
238320	2.88%	1.99%	0.67%	0.02%	5.68%	11.23%	88.77%	100.00%
238910	6.82%	7.20%	2.27%	0.06%	10.58%	26.92%	73.08%	100.00%
238990	2.22%	2.27%	0.92%	0.21%	6.16%	11.78%	88.22%	100.00%
332312	3.97%	5.24%	1.36%	0.06%	10.00%	20.63%	79.38%	100.00%
332911	0.00%	0.00%	4.17%	0.00%	16.67%	20.83%	79.17%	100.00%
332996	0.00%	4.17%	0.00%	0.00%	8.33%	12.50%	87.50%	100.00%
423610	3.40%	2.40%	1.50%	0.04%	9.98%	17.31%	82.69%	100.00%
423840	2.74%	2.35%	1.25%	0.22%	7.98%	14.54%	85.46%	100.00%
424720	4.02%	3.66%	1.82%	0.04%	5.03%	14.57%	85.43%	100.00%
484110	2.45%	1.90%	0.72%	0.03%	4.25%	9.35%	90.65%	100.00%
484220	16.28%	33.27%	2.15%	0.06%	11.40%	63.16%	36.84%	100.00%

NAICS	Black	Hispanic	Asian	Native American	White Women	M/WBE	Non-M/WBE	Total
541330	6.36%	4.67%	6.80%	0.13%	6.88%	24.84%	75.16%	100.00%
561730	3.33%	3.00%	0.81%	0.03%	5.86%	13.03%	86.97%	100.00%
562219	1.29%	1.06%	0.52%	0.02%	4.35%	7.25%	92.75%	100.00%
562910	17.25%	20.07%	6.17%	0.10%	6.41%	50.00%	50.00%	100.00%
Total	4.09%	3.55%	1.71%	0.07%	6.70%	16.12%	83.88%	100.00%

Source: CHA analysis of District data.

To further meet the constitutional requirement that the availability estimates that will be used to set goals are narrowly tailored, we then weighted the availability estimate for each of the aggregated industries in the NAICS codes by the share of the District's spending in each code. Table 9 presents these weights.

Table C9: Share of District Spending by NAICS Code, All Sectors

NAICS	NAICS Code Description	WEIGHT (PCT SHARE of TOTAL SECTOR DOLLARS)
221122	Electric Power Distribution	16.09%
236220	Commercial and Institutional Building Construction	2.45%
237310	Highway, Street, and Bridge Construction	4.91%
238210	Electrical Contractors and Other Wiring Installation Contractors	15.69%
238220	Plumbing, Heating, and Air-Conditioning Contractors	3.37%
238910	Site Preparation Contractors	0.60%
324110	Petroleum Refineries	7.63%
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	16.79%
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	20.61%
454310	Fuel Dealers	0.55%
541330	Engineering Services	2.34%
541620	Environmental Consulting Services	2.94%
561621	Security Systems Services (except Locksmiths)	2.89%
561730	Landscaping Services	3.13%

NAICS	NAICS Code Description	WEIGHT (PCT SHARE of TOTAL SECTOR DOLLARS)
TOTAL		100.00%

Source: CHA analysis of District data.

Table C10 presents the final estimates of the weighted averages of all the individual 6-digit level availability estimates in the District’s market area. These weighted availability estimates can be used to set an overall MBE and a WBE goal for District procurement.

**Table C12: Aggregated Weighted Availability, All Sectors
(total dollars)**

NAICS	Black	Hispanic	Asian	Native American	White Women	M/WBE	Non-M/WBE	Total
TOTAL	5.7%	2.4%	3.3%	0.1%	9.8%	21.2%	78.7%	100.00%

Source: CHA analysis of District data.

E. Analysis of Race and Gender Disparities in the District’s Utilization of M/WBEs

To meet the strict scrutiny requirement that the District consider evidence of disparities to establish its compelling interest in remedying discrimination in its market area, we next calculated disparity ratios for total M/WBE utilization compared to the total weighted availability of M/WBEs, measured in dollars paid. Tables 13 through provides the results of our analysis.

A “large” or “substantively significant” disparity is commonly defined by courts as utilization that is equal to or less than 80 percent of the availability measure. A substantively significant disparity supports the inference that the result may be caused by the disparate impacts of discrimination.¹⁴⁰ A statistically significant disparity means that an outcome is unlikely to have occurred as the result of random chance alone. The greater the statistical significance, the smaller the probability that it resulted from random chance alone. An asterisk indicates substantive significance.. A more in depth discussion of statistical significance is provided in Appendix D.

¹⁴⁰ See U.S. Equal Opportunity Employment Commission regulation, 29 C.F.R. § 1607.4(D) (“A selection rate for any race, sex, or ethnic group which is less than four-fifths (4/5) (or eighty percent) of the rate for the group with the highest rate will generally be regarded by the Federal enforcement agencies as evidence of adverse impact, while a greater than four-fifths rate will generally not be regarded by Federal enforcement agencies as evidence of adverse impact.”).

**Table C13: Disparity Ratios by Demographic Group,
All Sectors**

	Disparity Ratio
Black	516.42%
Hispanic	130.09%
Asian	528.20%
Native American	0.00%
White Women	4.70%
M/WBE	235.83%
Non-M/WBE	63.37%

Source: CHA analysis of District data.

APPENDIX D

ANALYSIS OF DISPARITIES IN THE DISTRICT'S ECONOMY

A. Introduction

Nobel Laureate Kenneth Arrow, in his seminal paper on the economic analysis of discrimination, observed:

Racial discrimination pervades every aspect of a society in which it is found. It is found above all in attitudes of both races, but also in social relations, in intermarriage, in residential location, and frequently in legal barriers. It is also found in levels of economic accomplishment; this is income, wages, prices paid and credit extended.¹⁴¹

This Appendix explores the data and literature relevant to how discrimination in the District's market and throughout the wider economy affects the ability of minorities and women to fairly and fully engage in the District's contract opportunities. First, we analyzed the rates at which M/WBEs in Illinois form firms and their earnings from those firms. Next, we summarize the literature on barriers to equal access to commercial credit. Finally, we summarize the literature on barriers to equal access to human capital. All three types of evidence have been found by the courts to be relevant and probative of whether a government will be a passive participant in discrimination without some type of affirmative interventions.

A key element to determine the need for government intervention through contract goals in the sectors of the economy where the District procures goods and services is an analysis of the extent of disparities in those sectors independent of the agency's intervention through its contracting affirmative action programs. The courts have repeatedly held that analysis of disparities in the rates at which minority- and women-owned business enterprises ("M/WBEs") in the government's markets form businesses compared to similar non-M/WBEs, and their earnings from such businesses, are highly relevant to the determination whether the market functions properly for all firms regardless of the race or gender of their ownership.¹⁴²

The courts have repeatedly held that analysis of disparities in the rates at which M/WBEs in the government's markets form businesses compared to similar non-M/WBEs, their earnings from such businesses, and their access to capital

¹⁴¹ Arrow, Kenneth J., "What Has Economics to say about racial discrimination?", *Journal of Economic Perspectives*, (1998), 12(2), pp. 91-100.

¹⁴² See the discussion in Appendix A of the legal standards applicable to contracting affirmative action programs.

markets are highly relevant to the determination whether the market functions properly for all firms regardless of the race or gender of their ownership. These analyses contributed to the successful defense of Chicago's construction program.¹⁴³ As explained by the Tenth Circuit, this type of evidence

demonstrates the existence of two kinds of discriminatory barriers to minority subcontracting enterprises, both of which show a strong link between racial disparities in the federal government's disbursements of public funds for construction contracts and the channeling of those funds due to private discrimination. The first discriminatory barriers are to the formation of qualified minority subcontracting enterprises due to private discrimination, precluding from the outset competition for public construction contracts by minority enterprises. The second discriminatory barriers are to fair competition between minority and non-minority subcontracting enterprises, again due to private discrimination, precluding existing minority firms from effectively competing for public construction contracts. The government also presents further evidence in the form of local disparity studies of minority subcontracting and studies of local subcontracting markets after the removal of affirmative action programs.... The government's evidence is particularly striking in the area of the race-based denial of access to capital, without which the formation of minority subcontracting enterprises is stymied.¹⁴⁴

Business discrimination studies and lending studies are relevant and probative because they show a strong link between the disbursement of public funds and the channeling of those funds due to private discrimination. "Evidence that private discrimination results in barriers to business formation is relevant because it demonstrates that M/WBEs are precluded *at the outset* from competing for public construction contracts. Evidence of barriers to fair competition is also relevant because it again demonstrates that *existing* M/WBEs are precluded from competing for public contracts."¹⁴⁵ Despite the contentions of plaintiffs that possibly dozens of factors might influence the ability of any individual to succeed in business, the courts have rejected such impossible tests and held that business formation studies are not flawed because they cannot control for subjective descriptions such as "quality of education," "culture" and "religion."

For example, in unanimously upholding the USDOT DBE Program, the courts agree that disparities between the earnings of minority-owned firms and similarly

¹⁴³ *Builders Association of Greater Chicago v. City of Chicago*, 298 F.Supp.2d 725 (N.D. Ill. 2003) (holding that City of Chicago's M/WBE program for local construction contracts met compelling interest using this framework).

¹⁴⁴ *Adarand VII*, 228 F.3d at 1168-69 .

¹⁴⁵ *Id.*

situated non-minority-owned firms and the disparities in commercial loan denial rates between Black business owners compared to similarly situated non-minority business owners are strong evidence of the continuing effects of discrimination.¹⁴⁶ The Eighth Circuit Court of Appeals took a “hard look” at the evidence Congress considered, and concluded that the legislature had

spent decades compiling evidence of race discrimination in government highway contracting, of barriers to the formation of minority-owned construction businesses, and of barriers to entry. In rebuttal, [the plaintiffs] presented evidence that the data were susceptible to multiple interpretations, but they failed to present affirmative evidence that no remedial action was necessary because minority-owned small businesses enjoy non-discriminatory access to and participation in highway contracts. Thus, they failed to meet their ultimate burden to prove that the DBE program is unconstitutional on this ground.¹⁴⁷

To conduct this type of court-approved economy-wide analysis, we utilized U.S. Bureau of the Census datasets to address the central question whether firms owned by non-Whites and White women face disparate treatment in the District’s marketplace.¹⁴⁸

We explored the existence of any disparities by analyzing two datasets, each of which permits examination of the issue from a unique vantage point.

- The Census Bureau’s *Survey of Business Owners* allows us to examine disparities using individual firms as the basic unit of analysis.
- The Census Bureau’s *American Community Survey* allows us to examine disparities using individual entrepreneurs as the basic unit of analysis.¹⁴⁹

Using both data sets, we found disparities for minorities and women across most industry sectors in the District’s marketplace.

¹⁴⁶ *Id.*; *Western States*, 407 F.3d at 993; *Northern Contracting I*, 2004 U.S. Dist. LEXIS 3226 at *64.

¹⁴⁷ *Sherbrooke*, 345 F.3d. at 970; *see also Adarand VII*, 228 F.3d at 1175 (plaintiff has not met its burden “of introducing credible, particularized evidence to rebut the government’s initial showing of the existence of a compelling interest in remedying the nationwide effects of past and present discrimination in the federal construction procurement subcontracting market.”).

¹⁴⁸ While this is often described as a “private sector analysis,” a more accurate description is an “economy-wide” analysis because expenditures by the public sector are included in the Census databases.

¹⁴⁹ Data from 2007-2011 American Community Survey are the most recent for a five year period.

B. Summary of Findings

1. Disparities in Firm Sales and Payroll

One way to measure equity is to examine the share of total sales and/or payroll a group has relative to its share of total firms. Parity would be represented by the ratio of sales or payroll share over the share of total firms equaling 100% (*i.e.*, a group has 10% of total sales and comprises 10% of all firms.) A ratio that is less than 100% indicates an underutilization of a demographic group, and a ratio of more than 100% indicates an overutilization of a demographic group. Table 1 presents data from the Census Bureau’s Survey of Business Owners that indicate very large disparities between non-White and White women-owned firms when examining the sales of all firms, the sales of employer firms (firms that employ at least one worker), or the payroll of employer firms. In contrast, the firms that were not non-White and not White women-owned were overutilized using the identical metric.¹⁵⁰

**Table D1. Disparity Ratios of Firm Utilization Measures
All Industries,
Survey of Business Owners, 2007**

	Ratio of Sales to Number of Firms (All Firms)	Ratio of Sales to Number of Firms (Employer Firms)	Ratio of Payroll to Number of Employer Firms
Non-whites	11.2%	20.3%	28.0%
White Women	14.6%	20.5%	28.1%
Not Non-White/Not White Women	161.0%	124.3%	122.0%

Source: CHA Calculations from Survey of Business Owners

2. Disparities in Wages and Business Earnings

Another way to measure equity is to examine how the economic utilization of particular demographic groups compares to White men. Multiple regression statistical techniques allowed us to examine the impact of race and gender on economic outcome while controlling for other factors, such as education, that might impact outcomes.¹⁵¹ Using these techniques and data from the Census Bureau’s American Community Survey, we found that Blacks, Latinos, Native Americans, Asian/Pacific Islanders, Others, and White women were underutilized

¹⁵⁰ The Survey of Business Owners data available via American Fact Finder do not permit the use of regression analysis on these results.

¹⁵¹ See Appendix A for more information on multiple regression statistical analysis.

relative to White men: controlling for other factors relevant to business success, wages and business earnings were lower for these groups compared to White men. We report wages and business earnings because disparities in wages and business earnings can lead to disparities in business outcomes. These findings are presented in Table D2. Parity would exist if the figures in Table D2 were 0.0%; in other words, non-Whites and White women would be utilized identical to White men. When the Table indicates that the wage differential between Blacks and White men is -34.3%, for example, this means that wages received by Blacks are 34.3% less than wages received by similar White men. Because of these disparities, the rates at which these groups formed businesses were lower than the business formation rate of similarly-situated White men.

**Table D2. Economic Outcome Differentials of Minorities and White Women Relative to White Males
All Industries,
American Community Survey, 2007-2011**

Demographic Group	Wages Differentials Relative to White Men (% Change)	Business Earnings Relative to White Men (% Change)
Black	-34.3%	-44.4%
Latino	-12.1%	-25.5%
Native American	-32.6%	-49.3%
Asian/Pacific Islander	-30.5%	-24.2%
Other	-23.4%	-12.3%
White Women	-33.9%	-53.2%

Source: CHA calculations from the American Community Survey

3. Disparities in Business Formation

A third method of exploring differences in economic outcomes is to examine the rate at which different demographic groups form businesses. We developed these business formation rates using data from the U.S. Bureau of the Census' American Community Survey. Table D3a presents these results. The Table indicates that White men have higher business formation rates compared to non-Whites and White women. Table D3b explores the same question but utilizes multiple regression analysis to control for important factors beyond race and gender. This Table indicates that non-Whites and White women are less likely to

form businesses compared to similarly situated White men. For instance, Blacks are 4.9% less likely to form a business compared to White men after other key explanatory variables are controlled. These Tables reinforce the notion that there are significant differences in the rate of non-Whites and White women to form business compared to the rate of White men. These differences support the inference that minority- and women-owned business enterprises (“M/WBEs”) suffer major barriers to equal access to entrepreneurial opportunities in the overall Illinois economy.

**Table D3a. Business Formation Rates
All Industries,
American Community Survey, 2007-2011**

Demographic Group	Business Formation Rates
Black	4.5%
Latino	4.7%
Native American	8.6%
Asian/Pacific Islander	8.4%
Other	5.9%
Non-White	5.2%
White Women	6.9%
Non-White Male	6.0%
White Male	11.2%

Source: CHA calculations from the American Community Survey

**Table D3b. Business Formation Probabilities Relative to White Males
All Industries,
American Community Survey, 2007-2011**

Demographic Group	Probability of Forming a Business Relative to White Men
Black	-4.9%
Latino	-3.2%
Native American	-3.0%
Asian/Pacific Islander	-1.4%
Other	-0.9%
White Women	-2.6%

Source: CHA calculations from the American Community Survey

Overall, the results of our analyses of the Illinois economy demonstrate that minorities and White women continue to face race- and gender-based barriers to equal opportunities as firm owners, and to equal opportunities to earn wages and salaries that impact their ability to form firms and to earn income from those firms. While not dispositive, this suggests that absent some affirmative intervention in the current operations of the Illinois marketplace, the District will function as a passive participant in these potentially discriminatory outcomes.¹⁵²

C. Disparate Treatment in the Marketplace: Evidence from the Census Bureau’s 2007 Survey of Business Owners

Every five years, the Census Bureau administers the *Survey of Business Owners* (“SBO”) to collect data on particular characteristics of businesses that report to the Internal Revenue Service receipts of \$1,000 or more.¹⁵³ The 2007 SBO was released on August 16, 2012, so our analysis reflects the most current data available. The SBO collects demographic data on business owners disaggregated into the following groups:^{154, 155}

¹⁵² Various appendices to this Chapter contain additional data and methodological explanations. Appendix A provides a “Further Explanation of the Multiple Regression Analysis.” Appendix B provides a “Further Explanation of Probit Regression Analysis.” Appendix C discusses the meaning and role of “Significance Levels.” Appendix D provides detailed “Additional Data from the Analysis of the Survey of Business Owners.” Appendix E provides “Additional Data from the Analysis of American Community Survey.”

¹⁵³ See <http://www.census.gov/econ/sbo/about.html> for more information on the Survey.

¹⁵⁴ Race and gender labels reflect the categories used by the Census Bureau.

¹⁵⁵ For expository purposes, the adjective “Non-Hispanic” will not be used in this chapter; the reader should assume that any racial group referenced does not include members of that group who identify ethnically as Latino.

- Non-Hispanic Blacks
- Latinos
- Non-Hispanic Native Americans
- Non-Hispanic Asians
- Non-Hispanic White Women
- Non-Hispanic White Men
- Firms Equally Owned by Non-Whites and Whites
- Firms Equally Owned by Men and Women
- Firms where the ownership could not be classified
- Publicly-Owned Firms

For purposes of this analysis, the first four groups were aggregated to form a Non-White category. Since our interest is the treatment of non-White-owned firms and White women-owned firms, the last five groups were aggregated to form one category. To ensure this aggregated group is described accurately, we label this group “not non-White/non-White women”. While this label is cumbersome, it is important to be clear this group includes firms whose ownership extends beyond White men, such as firms that are not classifiable or that are publicly traded and thus have no racial ownership.

In addition to the ownership demographic data, the Survey also gathers information on the sales, number of paid employees, and payroll for each reporting firm.

To examine those sectors in which the District purchases, we analyzed economy-wide SBO data on the following sectors:

- Construction
- Professional, Scientific and Technical Services
- Information technology
- Goods
- Services

However, the nature of the SBO data— a sample of all businesses, not the entire universe of all businesses— required some adjustments. In particular, we had to define the sectors at the 2-digit North American Industry Classification System (“NAICS”) code level and therefore our sector definitions do not exactly correspond to the definitions used to analyze the District’s contract data in Chapter IV, where we are able to determine sectors at the 6-digit NAICS code level. At a more detailed level, the number of firms sampled in particular demographic and sector cells may be so small that the Census Bureau does not report the information, either to avoid disclosing data on businesses that can be identified or because the small sample size generates unreliable estimates of the universe.¹⁵⁶ We therefore report 2-digit data.

Table D4 presents information on which NAICS codes were used to define each sector.

Table D4. 2-Digit NAICS Code Definition of Sector

SBO Sector Label	2-Digit NAICS Codes
Construction	23
Professional, Scientific, and Technical Services ¹⁵⁷	54
Information	51
Goods	31, 42, 44
Services	48, 52, 53, 56, 61, 62, 71, 72, 81

The balance of this Chapter section reports the findings of the SBO analysis. For each sector, we present data describing the sector and report disparities within the sector.

1. All SBO Industries

For a baseline analysis, we examined all industries in the state of Illinois. Data are not available beyond the state level. Table D5 presents data on the percentage share that each group has of the total of each of the following six business outcomes:

- The number of all firms
- The sales and receipts of all firms

¹⁵⁶ Even with these broad sector definitions, there was an insufficient number of Native American owned firms to perform our analysis on this demographic group. This limitation also arose for Latinos and Asians in the Services sector.

¹⁵⁷ This sector includes (but is broader than just) construction-related services. It is impossible to narrow this category to construction-related services without losing the capacity to conduct race and gender specific analyses.

- The number of firms with employees (employer firms)
- The sales and receipts of all employer firms
- The number of paid employees
- The annual payroll of employers firms

Panel A of Table D5 presents data for the four basic non-White racial groups:

- Black
- Latino
- Native American
- Asian

Panel B of Table D5 presents data for six types of firm ownership:

- Non-white
- White Women
- White Men
- Equally non-Whites and Whites
- Equally women and men
- Firms that are publicly owned or not classifiable

Categories in the second panel are mutually exclusive. Hence, firms that are non-White and equally owned by men and women are classified as non-White and firms that are equally owned by non-Whites and Whites and equally owned by men and women are classified as equally owned by non-Whites and Whites.¹⁵⁸

¹⁵⁸ Some of the figures in Panel B may not correspond to the related figures in Panel A because of discrepancies in how the SBO reports the data

**Table D5. Percentage Demographic Distribution of Sales and Payroll Data
All Industries, 2007**

	Total Number of Firms (All Firms)	Sales & Receipts - All Firms (\$1,000)	Number of Firms with Paid Employees (Employer Firms)	Sales & Receipts - All Firms with Paid Employees (Employer Firms) (\$1,000)	Number of Paid Employees	Annual payroll (\$1,000)
Panel A: Distribution of Non-White Firms						
Black	9.3%	0.5%	1.5%	0.3%	0.8%	0.6%
Latino	5.0%	0.7%	3.0%	0.6%	1.5%	0.9%
Native American	0.3%	0.0%	0.2%	0.0%	0.1%	0.0%
Asian	5.2%	1.2%	6.3%	1.1%	1.9%	1.4%
Panel B: Distribution of All Firms						
Non-White	19.8%	2.2%	9.6%	2.0%	3.9%	2.7%
White Women	21.3%	3.1%	13.8%	2.8%	5.4%	3.9%
White Men	42.3%	25.4%	50.5%	24.7%	32.2%	29.4%
Equally Non-White & White	1.0%	0.1%	0.4%	0.1%	0.2%	0.2%
Equally Women & Men	12.1%	3.1%	14.8%	2.8%	5.4%	3.5%
Firms Not Classifiable	3.5%	66.0%	10.9%	67.6%	52.9%	60.3%
All Firms	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: CHA calculations from Survey of Business Owners

Since the central issue is the possible disparate treatment of non-White and White women firms, Table D6 re-aggregates the last four groups– White men; equally non-White and White; equally women and men; and firms not classifiable– into one group: Not Non-White/Not White Women.¹⁵⁹ We then present the shares each group has of the six indicators of firm utilization. These data were then used to calculate three disparity ratios, presented in Table 7:

- Ratio of sales and receipts share for all firms over the share of total number of all firms.
- Ratio of sales and receipts share for employer firms over the share of total number of employer firms.

¹⁵⁹ Again, while a cumbersome nomenclature, it is important to remain clear that this category includes firms other than those identified as owned by White men.

- Ratio of annual payroll share over the share of total number of employer firms.

For example, the disparity ratio of sales and receipts share for all firms over the share of total number of all firms for Black firms is 13.9% (as shown in Table D7). This is derived by taking the Black share of sales and receipts for all firms (1.3%) and dividing it by the Black share of total number of all firms (9.6%) that are presented in Table D6. If Black-owned firms earned a share of sales equal to their share of total firms, the disparity would have been 100%. An index less than 100 percent indicates that a given group is being utilized less than would be expected based on its availability, and courts have adopted the Equal Employment Opportunity Commission’s “80 percent” rule that a ratio less than 80 percent presents a *prima facie* case of discrimination.¹⁶⁰ Except for the Black ratio of payroll to the number of employer firms, all disparity ratios for non-White firms and White women firms are below this threshold.¹⁶¹

**Table D6. Demographic Distribution of Sales and Payroll Data
All Industries, 2007**

	Total Number of Firms (All Firms)	Sales & Receipts - All Firms (\$1,000)	Number of Firms with Paid Employees (Employer Firms)	Sales & Receipts - All Firms with Paid Employees (Employer Firms) (\$1,000)	Number of Paid Employees	Annual payroll (\$1,000)
Panel A: Distribution of Non-White Firms						
Black	9.6%	1.3%	1.7%	1.1%	1.8%	1.5%
Latino	5.2%	2.1%	3.4%	1.9%	3.1%	2.3%
Native American	0.3%	0.1%	0.2%	0.1%	0.2%	0.1%
Asian	5.3%	3.6%	7.0%	3.5%	4.0%	3.4%
Panel B: Distribution of All Firms						
Non-Whites	20.6%	6.5%	10.8%	6.0%	8.2%	6.8%
White Women	22.1%	9.2%	15.4%	8.7%	11.4%	9.7%
White Men	57.3%	84.3%	73.8%	85.3%	80.4%	83.5%
All Firms	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: CHA calculations from Survey of Business Owners

¹⁶⁰ 29 C.F.R. § 1607.4(D) (“A selection rate for any race, sex, or ethnic group which is less than four-fifths (4/5) (or eighty percent) of the rate for the group with the highest rate will generally be regarded by the Federal enforcement agencies as evidence of adverse impact, while a greater than four-fifths rate will generally not be regarded by Federal enforcement agencies as evidence of adverse impact.”).

¹⁶¹ Because the data in Tables D6 and D7 are presented for descriptive purposes, significance tests on these results are not conducted.

**Table D7. Disparity Ratios of Firm Utilization Measures
All Industries, 2007**

	Ratio of Sales to Number of Firms (All Firms)	Ratio of Sales to Number of Firms (Employer Firms)	Ratio of Payroll to Number of Employer Firms
Panel A: Disparity Ratios for Non-White Firms			
Black	13.9%	62.7%	84.7%
Latino	39.6%	55.6%	66.4%
Native American	39.6%	59.9%	60.6%
Asian	68.2%	50.0%	48.5%
Panel B: Disparity Ratios for All Firms			
Non-Whites	11.2%	20.3%	28.0%
White Women	14.6%	20.5%	28.1%
Not Non-White/Not White Women	161.0%	124.3%	122.0%
All Firms	100.0%	100.0%	100.0%

Source: CHA calculations from Survey of Business Owners

This same approach was used to examine the key sectors in which the District purchases. The underlying data on the various industries of construction; professional, scientific and technical services; information technology; and services are presented in Appendix J. The following are summaries of the results of the disparity analyses.

2. Construction

Of the 18 disparity ratios for non-White firms and White women firms presented in Table D8, 14 fall under the 80% threshold.

**Table D8. Disparity Ratios – Aggregated Groups
Construction, 2007**

	Ratio of Sales to Number of Firms (All Firms)	Ratio of Sales to Number of Firms (Employer Firms)	Ratio of Payroll to Number of Employer Firms
Panel A: Disparity Ratios for Non-White Firms			
Black	25.8%	100.1%	108.4%
Latino	29.7%	50.3%	66.6%
Native American	35.0%	63.2%	76.4%
Asian	56.0%	64.4%	79.0%
Panel B: Disparity Ratios for All Firms			
Non-White	29.3%	62.9%	78.4%
White Women	86.7%	70.4%	96.4%
Not Non-White/Not White Women	110.6%	105.1%	101.5%
All Firms	100.0%	100.0%	100.0%

Source: CHA calculations from Survey of Business Owners

3. Professional, Scientific and Technical Services

Table D9 presents disparity ratios in this sector. Because of the dearth of Native American firms in this sector, no analysis is provided for this demographic group. All of the available disparity ratios for non-White firms and White women firms presented in Table D9 are under the 80% threshold.¹⁶²

**Table D9. Disparity Ratios – Aggregated Groups
Professional, Scientific, and Technical Services, 2007**

	Ratio of Sales to Number of Firms (All Firms)	Ratio of Sales to Number of Firms (Employer Firms)	Ratio of Payroll to Number of Employer Firms
Panel A: Disparity Ratios for Non-White Firms			
Black	17.2%	49.6%	53.1%
Latino	27.8%	44.6%	36.9%
Native American	S	S	S
Asian	47.8%	46.2%	46.4%
Panel B: Disparity Ratios for All Firms			
Non-White	30.1%	48.1%	47.2%
White Women	26.8%	30.9%	29.1%
Not Non-White/Not White Women	142.6%	120.3%	120.8%
All Firms	100.0%	100.0%	100.0%

Source: CHA calculations from Survey of Business Owners

¹⁶² The values of “S” in Tables D9 – D12 reflect that the SBO did not publish data in these instances because it was “withheld because estimate did not meet publication standards”. See the Disclosure section under Methodology at <http://www.census.gov/econ/sbo/methodology.html>.

4. Information

Once again, the small number of Native American firms in this sector meant that no analysis is provided for this demographic group. In addition, the SBO was unable to provide reliable estimates for the firms in this sector that are equally owned by non-Whites and Whites. Thirteen of the available 15 disparity ratios for non-White firms and White women firms presented in Table D10 fall below the 80% threshold.

Table D10. Disparity Ratios – Aggregated Groups Information, 2007

	Ratio of Sales to Number of Firms (All Firms)	Ratio of Sales to Number of Firms (Employer Firms)	Ratio of Payroll to Number of Employer Firms
Panel A: Disparity Ratios for Non-White Firms			
Black	21.3%	145.9%	262.0%
Latino	5.4%	16.3%	17.4%
Native American	S	S	S
Asian	18.3%	21.3%	25.9%
Panel B: Disparity Ratios for All Firms			
Non-White	16.4%	48.5%	79.0%
White Women	6.0%	7.8%	10.2%
Not Non-White/Not White Women	150.4%	119.4%	117.1%
All Firms	100.0%	100.0%	100.0%

Source: CHA calculations from Survey of Business Owners

5. Services

The SBO was unable to provide reliable estimates for the firms that are equally owned by non-Whites and Whites and Native American firms in this sector; consequently, no analysis is provided for these demographic groups. In addition, estimates could not be made for Asian-owned firms in four of the six categories and Latino-owned firms in two of the four categories. Of the available 12 disparity ratios for non-White firms and White women firms presented in Table D11, all fall below the 80% threshold.

Table D11. Disparity Ratios – Aggregated Groups

All Services, 2007

	Ratio of Sales to Number of Firms (All Firms)	Ratio of Sales to Number of Firms (Employer Firms)	Ratio of Payroll to Number of Employer Firms
Panel A: Disparity Ratios for Non-White Firms			
Black	5.5%	19.9%	28.1%
Latino	18.2%	10.2%	S
Native American	S	S	S
Asian	28.2%	S	S
Panel B: Disparity Ratios for All Firms			
Non-White	12.7%	21.2%	27.6%
White Women	14.6%	18.6%	26.3%
Not Non-White/Not White Women	179.1%	128.9%	126.3%
All Firms	100.0%	100.0%	100.0%

Source: CHA calculations from Survey of Business Owners

6. Goods

The SBO was unable to provide reliable estimates for the firms that are equally owned by non-Whites and Whites and Native American firms in this sector; consequently, no analysis is provided for these demographic groups. All of the disparity ratios for non-White firms and White women firms presented in Table D12 fall below the 80% threshold.

**Table D12. Disparity Ratios – Aggregated Groups
Goods, 2007**

	Ratio of Sales to Number of Firms (All Firms)	Ratio of Sales to Number of Firms (Employer Firms)	Ratio of Payroll to Number of Employer Firms
Panel A: Disparity Ratios for Non-White Firms			
Black	5.3%	23.0%	30.4%
Latino	11.6%	20.0%	26.9%
Native American	S	S	S
Asian	18.5%	14.2%	14.7%
Panel B: Disparity Ratios for All Firms			
Non-White	11.9%	17.1%	19.5%
White Women	10.6%	20.5%	29.8%
Not Non-White/Not White Women	157.0%	122.9%	121.1%
All Firms	100.0%	100.0%	100.0%

Source: CHA calculations from Survey of Business Owners

D. Disparate Treatment in the Marketplace: Evidence from the Census Bureau’s 2007-2011 American Community Survey

As discussed in the beginning of this Appendix, the key question is whether firms owned by non-Whites and White women face disparate treatment in the marketplace without the intervention of the District’s M/WBE program.

In the previous section, we explored this question using SBO data. In this section, we use the Census Bureau’s *American Community Survey* data to address other aspects of this question. One element asks if there exist demographic differences in the wage and salary income received by private sector workers. Beyond the issue of bias in the incomes generated in the private sector, this exploration is important for the issue of possible variations in the rate of business formation by different demographic groups. One of the determinants

of business formation is the pool of financial capital at the disposal of the prospective entrepreneur. The size of this pool is related to the income level of the individual either because the income level impacts the amount of personal savings that can be used for start-up capital or the income level affects one's ability to borrow funds. If particular demographic groups receive lower wages and salaries then they would have access to a smaller pool of financial capital, and thus reduce the likelihood of business formation.

The *American Community Survey* ("ACS") *Public Use Microdata Sample* ("PUMS") is useful in addressing these issues. The ACS is an annual survey of 1% of the population and the PUMS provides detailed information at the individual level. In order to obtain robust results from our analysis, we use the file that combines data for 2007 through 2011, the most recent available.¹⁶³ With this rich data set, our analysis can establish with greater certainty any causal links between race, gender and economic outcomes.

Often, the general public sees clear associations between race, gender, and economic outcomes and assumes this association reflects a tight causal connection. However, economic outcomes are determined by a broad set of factors, including, but extending beyond, race and gender. To provide a simple example, two people who differ by race or gender may receive different wages. This difference may simply reflect that the individuals work in different industries. If this underlying difference is not known, one might assert the wage differential is the result of the race or gender difference. To better understand the impact of race or gender on wages, it is important to compare individuals of different races or genders who work in the same industry. Of course, wages are determined by a broad set of factors beyond race, gender, and industry. With the ACS PUMS, we have the ability to include a wide range of additional variables such as age, education, occupation, and state of residence.

We employ a multiple regression statistical technique to process this data. This methodology allows us to perform two analyses: an estimation of how variations in certain characteristics (called independent variables) will impact the level of some particular outcome (called a dependent variable); and a determination of how confident we are that the estimated variation is statistically different from zero. We have provided more detail on this technique in Appendix G.

With respect to the first result of regression analysis, we will examine how variations in the race, gender, and industry of individuals impact the wages and other economic outcomes received by individuals. The technique allows us to determine the effect of changes in one variable, assuming that the other determining variables are the same. That is, we compare individuals of different races, but of the same gender and in the same industry; or we compare

¹⁶³ For more information about the ACS PUMS, please see <http://www.census.gov/acs/>.

individuals of different genders, but of the same race and the same industry; or we compare individuals in different industries, but of the same race and gender. We are determining the impact of changes in one variable (*e.g.*, race, gender or industry) on another variable (wages), “controlling for” the movement of any other independent variables.

With respect to the second result of regression analysis, this technique also allows us to determine the statistical significance of the relationship between the dependent variable and independent variable. For example, the relationship between gender and wages might exist but we find that it is not statistically different from zero. In this case, we are not confident that there is not any relationship between the two variables. If the relationship is not statistically different from zero, then a variation in the independent variable has no impact on the dependent variable. The regression analysis allows us to say with varying degrees of statistical confidence that a relationship is different from zero. If the estimated relationship is statistically significant at the 0.05 level, that indicates we are 95% confident that the relationship is different from zero; if the estimated relationship is statistically significant at the 0.01 level, that indicates we are 99% confident that the relationship is different from zero; if the estimated relationship is statistically significant at the 0.001 level, that indicates we are 99.9% confident that the relationship is different from zero.¹⁶⁴

In the balance of this section, we report data on the following sectors:

- All Industries
- Construction
- Construction-related Services
- Information Technology
- Services
- Goods

Each sub-section first reports data on the share of a demographic group that forms a business (business formation rates); the probabilities that a demographic group will form a business relative to White men (business formation probabilities); the differences in wages received by a demographic group relative to White men (wage differentials); and the differences in business earnings received by a demographic group relative to White men (business earnings differentials).

¹⁶⁴ Most social scientists do not endorse utilizing a confidence level of less than 95%. Appendix C explains more about statistical significance.

1. All Industries in Illinois

a. Business Formation Rates

Table D13 presents business formation rates in the Illinois economy by demographic groups.

Table D13. Business Formation Rates, Illinois
All Industries, 2007-2011

Demographic Group	Business Formation Rates
Black	4.5%
Latino	4.7%
Native American	8.6%
Asian/Pacific Islander	8.4%
Other	5.9%
Non-White	5.2%
White Women	6.9%
Non-White Male	6.0%
White Male	11.2%

Source: CHA calculations from the American Community Survey

White males have a higher rate of business formation than Non-White males. However, as with the issue of income and earnings differences, the higher rates could be attributed to factors aside from race and/or gender. To explore this question further, a probit regression statistical technique was employed.¹⁶⁵ The basic question is: how does the probability of forming a business vary as factors such as race, gender, etc. vary?

¹⁶⁵ Probit is a special type of regression technique where the dependent variable only has two possible values: 0 or 1. For instance, the unit of observation is an individual and he/she forms a business or does not form a business. In the former case, the value of the dependent variable would be 1 while in the latter case, the value of the dependent variable would be 0. This is in contrast to the multiple regression technique discussed earlier where the dependent variable such as wages might have any non-negative value. For a more extensive discussion of probit regression analysis, see Appendix B.

Table D14 presents the results of the probit analysis for the Illinois economy.

**Table D14. Business Formation Probability Differentials for Selected Groups Relative to White Men
All Industries, 2007-2011**

Demographic Group	Probability of Forming a Business Relative to White Men
Black	-4.9%***
Latino	-3.2%***
Native American	-3.0%***
Asian/Pacific Islander	-1.4%***
Other	-0.9%***
White Women	-2.6%***

Source: CHA calculations from the American Community Survey
*** indicates statistical significance at the 0.001 level

The analysis indicates that non-Whites and White women in Illinois are less likely than White men to form businesses even after controlling for key factors. The reduction in probability ranges from 0.9% to 4.9%. Once again, these estimates are statistically significant at the 99.1 level.

b. Differences in Wage and Salary Incomes

Table D15 presents the findings from the wage and salary income regression analysis examining the Illinois economy. This indicates the wage differential for selected demographic groups in Illinois relative to White men.

Table D15. Wage Differentials for Selected Groups Relative to White Men

All Industries, 2007-2011

Demographic Group	Wages Relative to White Men (% Change)
Black	-34.3% ^{***}
Latino	-12.1% ^{***}
Native American	-32.6% ^{***}
Asian/Pacific Islander	-30.5% ^{**}
Other	-23.4% ^{***}
White Women	-33.9% ^{**}

Source: CHA calculations from the American Community Survey

*** Indicates statistical significance at the 0.001 level

** Indicates statistical significance at the 0.01 level

Holding constant factors such as education, age, occupation, and industry, Blacks, Latinos, White women, Asian/Pacific Islanders and Others in Illinois earn less than White men in the overall economy. Estimates of the coefficients for Black, Latino, Native American, and Other are statistically significant at the 0.001 level. Estimates of the coefficients for Asian/Pacific Islander and White Women are statistically significant at the 0.01 level. For example, we are 99.9% confident that wages for Blacks in Illinois (after controlling for numerous other factors) are 34.3% less than those received by White men.

c. Differences in Business Earnings

The same approach was used to investigate if there were differences in business earnings received by Non-Whites and White women entrepreneurs and White male entrepreneurs. Using the PUMS, we limited the sample to the self-employed and examined how their business income varied in response to factors such as race, gender, age, education, and industry. Table D16 presents these findings.

Table D16. Business Earnings Differentials for Selected Groups Relative to White Men

All Industries, 2007-2011

Demographic Group	Earnings Relative to White Men (% Change)
Black	-44.4% ^{***}
Latino	-25.5% ^{***}
Native American	-49.3% ^{***}
Asian/Pacific Islander	-24.2% ^{***}
Other	-12.3% ^{**}
White Women	-53.2% ^{***}

Source: CHA calculations from the American Community Survey

*** indicates statistical significance at the 0.001 level

** indicates statistical significance at the 0.01 level

Once again, the estimates of the coefficients for these variables were found to be statistically significant at the 0.001 and 0.01 levels. The differentials in business earnings received by Non-Whites and White women compared to White males ranged from -12% to -53%.

d. Conclusion

Using descriptive analysis, Table D13 shows that differentials exist between the business formation rates by Non-Whites and White women and White males across industry sectors. Table D14 presents the results of a further statistical analysis, which indicated that even after taking into account potential mitigating factors, the differential still exists. Tables D15 and D16 present data indicating differentials in wages and business earnings after controlling for possible explanatory factors. These analyses support the conclusion that barriers to business success do affect Non-Whites and White women entrepreneurs.

2. The Construction Industry in Illinois

a. Business Formation Rates

Table D17 presents business formation rates in the Illinois construction industry for selected demographic groups.

Table D17. Business Formation Rates, Illinois
Construction, 2007-2011

Demographic Group	Business Formation Rates
Black	19.0%
Latino	11.1%
Native American	22.3%
Asian/Pacific Islander	18.2%
Other	1.5%
Non-White	13.2%
White Women	6.9%
Non-White Male	13.7%
White Male	22.6%

Source: CHA calculations from the American Community Survey

White males have a higher rate of business formation than Non-White males. However, as with the issue of income and earnings differences, the higher rates could be attributed to factors aside from race and/or gender. To explore this question further, a probit regression statistical technique was employed. The basic question is: how does the probability of forming a business vary as factors such as race, gender, etc. vary?

Table D18 presents the results of the probit analysis for the construction industry in Illinois.

Table D18. Business Formation Probability Differentials for Selected Groups Relative to White Men

Construction, 2007-2011

Demographic Group	Probability of Forming a Business Relative to White Men
Black	-8.0%
Latino	-7.7%
Native American	-8.5%
Asian/Pacific Islander	-0.8%
Other	-3.0%
White Women	-2.3%

Source: CHA calculations from the American Community Survey

The analysis indicates that Non-Whites and White women in Illinois are less likely to form construction businesses compared to White men even after controlling for key factors. The reduction in probability ranges from 0.8% to 8.5%. Once again, these estimates are statistically significant at the 99.1 level.

b. Differences in Wage and Salary Incomes

Table D19 presents the findings from the wage and salary income regression analysis examining the construction industry in Illinois. This indicates the wage differential for selected demographic groups in Illinois relative to White men.

Table D19. Wage Differentials for Selected Groups Relative to White Men

Construction, 2007-2011

Demographic Group	Wages Relative to White Men (% Change)
Black	-51.0% ^{***}
Latino	-13.3% ^{***}
Native American	-36.0% ^{***}
Asian/Pacific Islander	-51.5% ^{***}
Other	-13.3% ^{***}
White Women	-45.0% ^{**}

Source: CHA calculations from the American Community Survey

*** indicates statistical significance at the 0.001 level

** indicates statistical significance at the 0.01 level

Holding constant factors such as education, age, occupation, and industry, Blacks, Latinos, White women, Asian/Pacific Islanders and Others in Illinois earn less than White men in the construction industry. The differential ranges between 13% less and 52% less. Estimates of the coefficients for Black, Latino, Native American, Asian/Pacific Islander, and Other are statistically significant at the 0.001 level. Estimates of the coefficients for White Women are statistically significant at the 0.01 level.

c. Differences in Business Earnings

The same approach was used to investigate if there were differences in business earnings received by Non-White male entrepreneurs and White male entrepreneurs. Using the PUMS, we limited the sample to the self-employed and examined how their business income varied in response to factors such as race, gender, age, education, and industry. Table D20 presents these findings.

Table D20. Business Earnings Differentials for Selected Groups Relative to White Men

Construction, 2007-2011

Demographic Group	Earnings Relative to White Men (% Change)
Black	-26.3% *
Latino	-6.1% ***
Native American	-25.8% ***
Asian/Pacific Islander	-10.0% **
Other	0.0%
White Women	-19.4% **

Source: CHA calculations from the American Community Survey

*** indicates statistical significance at the 0.001 level

** indicates statistical significance at the 0.01 level

* indicates statistical significance at the 0.005 level

With the exception of the estimated coefficient for Other, the estimates of the coefficients for these variables were found to be statistically significant at the 0.001, 0.01, or 0.005 levels. The differentials in business earnings received by Non-Whites and White women compared to White males ranged from 6% less to 26% less. For the estimated coefficient for Other, the results were not found to be significantly statistically different from zero.

d. Conclusion

Using descriptive analysis, Table D17 shows that differentials exist between the business formation rates by Non-White males and White males. Table D18 presents the results of a further statistical analysis, which indicated that even after taking into account potential mitigating factors, the differential still exists. Tables D19 and D20 present data indicating differentials in wage and business earnings after controlling for possible explanatory factors. These analyses

support the conclusion that barriers to business success do affect Non-Whites and White women entrepreneurs.

3. The Construction-Related Services Industry in Illinois

a. Business Formation Rates

Table D21 presents business formation rates in the construction-related services industry in Illinois for selected demographic groups.

Table D21. Business Formation Rates, Illinois

Construction-Related Services, 2007-2011

Demographic Group	Business Formation Rates
Black	4.6%
Latino	4.2%
Native American	0.0%
Asian/Pacific Islander	3.9%
Other	0.0%
Non-White	4.1%
White Women	8.3%
Non-White Male	6.3%
White Male	10.9%

Source: CHA calculations from the American Community Survey

White males have a higher rate of business formation than Non-White males. (There were zero reported Native American or Other entrepreneurs in the construction-related services industry.) However, as with the issue of income and earnings differences, the higher rates could be attributed to factors aside from race and/or gender. To explore this question further, a probit regression statistical technique was employed. The basic question is: how does the probability of forming a business vary as factors such as race, gender, etc. vary?

Table D22 presents the results of the probit analysis for the construction industry in Illinois.

**Table D22. Business Formation Probability
Differentials for Selected Groups Relative to
White Men
Construction-related Services, 2007-2011**

Demographic Group	Probability of Forming a Business Relative to White Men
Black	-6.2% ^{***}
Latino	-1.3% ^{***}
Native American	---
Asian/Pacific Islander	-5.5% ^{***}
Other	---
White Women	-0.2% ^{***}

Source: CHA calculations from the American Community Survey

The analysis indicates that compared to White men, Non-Whites and White women in Illinois are less likely to form construction-related services businesses even after controlling for key factors. The reduction in probability ranges from 0.2% less to 6.2% less. Once again, these estimates are statistically significant at the 99.1 level.

b. Differences in Wage and Salary Incomes

TableD23 presents the findings from the wage and salary income regression analysis examining the construction-related services industry in Illinois. This indicates the wage differential for selected demographic groups in Illinois relative to White men.

Table D23. Wage Differentials for Selected Groups Relative to White Men

Construction-related Services, 2007-2011

Demographic Group	Wages Relative to White Men (% Change)
Black	-49.2% **
Latino	-20.2% ***
Native American	-28.1% ***
Asian/Pacific Islander	-19.0% ***
Other	-13.0% *
White Women	-33.8% ***

Source: CHA calculations from the American Community Survey

*** indicates statistical significance at the 0.001 level

** indicates statistical significance at the 0.01 level

* indicates statistical significance at the 0.05 level

Holding constant factors such as education, age, occupation, and industry, Blacks, Latinos, White women, Asian/Pacific Islanders and Others in Illinois earn less than White men in the construction-related services industry. The differential ranges between 13% less and 49% less. Estimates of the coefficients for, Latino, Native American, Asian/Pacific Islander, and White Women are statistically significant at the 0.001 level. Estimates of the coefficients for Black are statistically significant at the 0.01 level. The estimated coefficient for Other is statistically significant at the 0.05 level.

c. Differences in Business Earnings

The same approach was used to investigate if there were differences in business earnings received by Non-White male entrepreneurs and White male entrepreneurs. Using the PUMS, we limited the sample to the self-employed and examined how their business income varied in response to factors such as race, gender, age, education, and industry. Table D24 presents these findings.

Table D24. Business Earnings Differentials for Selected Groups Relative to White Men

Construction-related Services, 2007-2011

Demographic Group	Earnings Relative to White Men (% Change)
Black	-57.7% ^{***}
Latino	0.0%
Native American	0.0%
Asian/Pacific Islander	-222.6% [*]
Other	0.0%
White Women	-60.8% ^{***}

Source: CHA calculations from the American Community Survey

^{***} indicates statistical significance at the 0.001 level

^{*} indicates statistical significance at the 0.005 level

The estimates of the coefficients for Black and White Women were found to be statistically significant at the 0.001 level. The estimated coefficient for Asian/Pacific Islander was statistically significant at the 0.05 level. The differentials in business earnings received by these three demographic groups were less than White males ranging from 57% to 222%. (The proper interpretation of the estimated coefficient for Asian/Pacific Islanders is that White men earn 222.6% greater than similarly situated Asian/Pacific Islanders.) The estimated coefficients for Latino, Native American, and Other were not found to be significantly statistically different from zero.

d. Conclusion

Using descriptive analysis, Table D21 shows that differentials exist between the business formation rates by Non-White males and White males. Table D22 presents the results of a further statistical analysis, which indicated that even after taking into account potential mitigating factors, the differential still exists.

Tables D23 and D4 present data indicating differentials in wage and business earnings after controlling for possible explanatory factors. These analyses support the conclusion that barriers to business success do affect Non-Whites and White women entrepreneurs.

4. The Information Technology Industry in Illinois

a. Business Formation Rates

Table D25 presents business formation rates in the information technology industry in Illinois for selected demographic groups.

Table D25. Business Formation Rates, Illinois

Information Technology, 2007-2011

Demographic Group	Business Formation Rates
Black	2.2%
Latino	4.3%
Native American	0.0%
Asian/Pacific Islander	6.2%
Other	5.4%
Non-White	4.4%
White Women	6.7%
Non-White Male	5.3%
White Male	11.4%

Source: CHA calculations from the American Community Survey

White males have a higher rate of business formation than Non-Whites and White women. However, as with the issue of income and earnings differences, the higher rates could be attributed to factors aside from race and/or gender. To explore this question further, a probit regression statistical technique was employed. The basic question is: how does the probability of forming a business vary as factors such as race, gender, etc. vary?

Table D26 presents the results of the probit analysis for the information technology industry in Illinois.

**Table D26. Business Formation Probability
Differentials for Selected Groups Relative to
White Men**

Information Technology, 2007-2011

Demographic Group	Probability of Forming a Business Relative to White Men
Black	-4.9% ^{***}
Latino	-2.1% ^{***}
Native American Asian/Pacific Islander	-1.5% ^{***}
Other	-4.7% ^{***}
White Women	-0.9% ^{***}
White Women	-2.0% ^{***}

Source: CHA calculations from the American Community Survey
 *** indicates statistical significance at the 0.001 level

The analysis indicates that Non-Whites and White women in Illinois are less likely to form information technology businesses compared to White men even after controlling for key factors. The reduction in probability ranges from 0.9% less to 4.9% less. Once again, these estimates are statistically significant at the 99.1 level.

b. Differences in Wage and Salary Incomes

Table D27 presents the findings from the wage and salary income regression analysis examining the information technology industry in Illinois. This indicates the wage differential for selected demographic groups in Illinois relative to White men.

Table D27. Wage Differentials for Selected Groups Relative to White Men

Information Technology, 2007-2011

Demographic Group	Wages Relative to White Men (% Change)
Black	-15.5%***
Latino	-8.1%***
Native American	-158.2%***
Asian/Pacific Islander	-18.4%***
Other	-25.5%***
White Women	-24.6%***

Source: CHA calculations from the American Community Survey

Holding constant factors such as education, age, occupation, and industry, Blacks, Latinos, Native American, Asian/Pacific Islanders, Others, and White women in Illinois earn less than White men in the information technology industry. The differential ranges between 8% less and 158% less. (The proper interpretation of the estimated coefficient for Native Americans is that White men earn 158.2% greater than similarly situated Native Americans.) The estimates of all coefficients are statistically significant at the 0.001 level.

c. Differences in Business Earnings

The same approach was used to investigate if there were differences in business earnings received by Non-White male entrepreneurs and White male entrepreneurs. Using the PUMS, we limited the sample to the self-employed and examined how their business income varied in response to factors such as race, gender, age, education, and industry. Table D28 presents these findings.

Table D28. Business Earnings Differentials for Selected Groups Relative to White Men

Information Technology, 2007-2011

Demographic Group	Earnings Relative to White Men (% Change)
Black	-42.0% ^{***}
Latino	-377.9% ^{***}
Native American	-
Asian/Pacific Islander	-17.6% [*]
Other	0.0%
White Women	-67.4% ^{***}

Source: CHA calculations from the American Community Survey

*** indicates statistical significance at the 0.001 level

* indicates statistical significance at the 0.005 level

The estimated coefficients for Black Latino, and White Women were statistically significant at the 0.001 level. The estimated coefficient for Asian/Pacific Islander was statistically significant at the 0.005 level. The differentials in business earnings received by these three demographic groups were less than White males from between 17.6% to 377.9%. (The proper interpretation of the estimated coefficient for Latinos is that White men earn 377.9% greater than similarly situated Latinos.) For the estimated coefficient for Other, the results were not found to be significantly statistically different from zero. For Native Americans the sample size was too small to calculate an estimated coefficient.

d. Conclusion

Using descriptive analysis, Table D25 shows that differentials exist between the business formation rates and by Non-White males and White males. Table 26 presents the results of a further statistical analysis, which indicated that even

after taking into account potential mitigating factors, the differential still exists. Tables D27 and D28 present data indicating differentials in wage and business earnings after controlling for possible explanatory factors. These analyses support the conclusion that barriers to business success do affect Non-Whites and White women entrepreneurs.

5. The Services Industry in Illinois

a. Business Formation Rates

Table D29 presents business formation rates in the services industry in Illinois for selected demographic groups.

Table D29. Business Formation Rates, Illinois

Services, 2007-2011

Demographic Group	Business Formation Rates
Black	4.0%
Latino	5.2%
Native American	16.1%
Asian/Pacific Islander	8.5%
Other	5.3%
Non-White	5.3%
White Women	7.7%
Non-White Male	6.6%
White Male	17.6%

Source: CHA calculations from the American Community Survey

White males have a higher rate of business formation than Non-White males. However, as with the issue of income and earnings differences, the higher rates could be attributed to factors aside from race and/or gender. To explore this question further, a probit regression statistical technique was employed. The basic question is: how does the probability of forming a business vary as factors such as race, gender, etc. vary?

Table D30 presents the results of the probit analysis for the services industry in Illinois.

Table D30. Business Formation Probability Differentials for Selected Groups Relative to White Men

Services, 2007-2011

Demographic Group	Probability of Forming a Business Relative to White Men
Black	-7.2% ^{***}
Latino	-4.7% ^{***}
Native American	-5.7% ^{***}
Asian/Pacific Islander	-5.0% ^{***}
Other	-2.5% ^{***}
White Women	-4.2% ^{***}

Source: CHA calculations from the American Community Survey

*** indicates statistical significance at the 0.001 level

The analysis indicates that compared to White men, Non-Whites and White women in Illinois are less likely to form services businesses even after controlling for key factors. The reduction in probability ranges from 2.5% less to 7.2% less. Once again, these estimates are statistically significant at the 99.1 level.

b. Differences in Wage and Salary Incomes

Table D31 presents the findings from the wage and salary income regression analysis examining the services industry in Illinois. This indicates the wage differential for selected demographic groups in Illinois relative to White men.

**Table D31. Wage Differentials for Selected Groups
Relative to White Men**

Services, 2007-2011

Demographic Group	Wages Relative to White Men (% Change)
Black	-44.5% ^{***}
Latino	-25.2% ^{***}
Native American	-71.3% [*]
Asian/Pacific Islander	-28.3% ^{***}
Other	-25.9% ^{***}
White Women	-40.0% ^{***}

Source: CHA calculations from the American Community Survey

*** indicates statistical significance at the 0.001 level

* indicates statistical significance at the 0.05 level

Holding constant factors such as education, age, occupation, and industry, Blacks, Latinos, White women, Asian/Pacific Islanders and Others in Illinois earn less than White men in the services industry. The differential ranges between 25% less and 71% less. Estimates of the coefficients for Black, Latino, Asian/Pacific Islander, Other, and White Women are statistically significant at the 0.001 level. Estimates of the coefficients for Native American are statistically significant at the 0.05 level.

c. Differences in Business Earnings

The same approach was used to investigate if there were differences in business earnings received by Non-White male entrepreneurs and White male entrepreneurs. Using the PUMS, we limited the sample to the self-employed and examined how their business income varied in response to factors such as race, gender, age, education, and industry. Table D32 presents these findings.

Table D32. Business Earnings Differentials for Selected Groups Relative to White Men

Services, 2007-2011

Demographic Group	Earnings Relative to White Men (% Change)
Black	-53.1% ^{***}
Latino	-37.3% ^{***}
Native American	-77.1% ^{***}
Asian/Pacific Islander	-33.8% ^{***}
Other	-27.0% ^{**}
White Women	-72.6% [*]

Source: CHA calculations from the American Community Survey

*** indicates statistical significance at the 0.001 level

** indicates statistical significance at the 0.01 level

* indicates statistical significance at the 0.005 level

The estimates of the coefficients for these variables were found to be statistically significant at the 0.001, 0.01, or 0.005 levels. The differentials in business earnings received by Non-Whites and White women compared to White males ranged from 27% less to 77% less.

d. Conclusion

Using descriptive analysis, Table D29 shows that differentials exist between the business formation rates by Non-White males and White males. Table D30 presents the results of a further statistical analysis, which indicated that even after taking into account potential mitigating factors, the differential still exists. Tables D31 and D32 present data indicating differentials in wage and business earnings after controlling for possible explanatory factors. These analyses support the conclusion that barriers to business success do affect Non-Whites and White women entrepreneurs.

6. The Goods Industry in Illinois

a. Business Formation Rates

Table D33 presents business formation rates in the goods industry in Illinois for selected demographic groups.

Table D33. Business Formation Rates, Illinois

Goods, 2007-2011

Demographic Group	Business Formation Rates
Black	2.1%
Latino	4.6%
Native American	4.0% [‡]
Asian/Pacific Islander	11.3%
Other	11.1% [‡]
Non-White	5.0%
White Women	5.5%
Non-White Male	5.2%
White Male	7.9%

Source: CHA calculations from the American Community Survey

[‡] The observations in this demographic group was too small for a reliable statistical analysis

White males have a higher rate of business formation than Non-Whites and White women. Note: the observed number of Native American and Other was too small for any reliable statistical analysis. However, as with the issue of income and earnings differences, the higher rates could be attributed to factors aside from race and/or gender. To explore this question further, a probit regression statistical technique was employed. The basic question is: how does the probability of forming a business vary as factors such as race, gender, etc. vary?

Table D34 presents the results of the probit analysis for the construction industry in Illinois.

Table D34. Business Formation Probability Differentials for Selected Groups Relative to White Men

Goods, 2007-2011

Demographic Group	Probability of Forming a Business Relative to White Men
Black	-4.0% ^{***}
Latino	-1.7% ^{***}
Native American	---
Asian/Pacific Islander	2.6% ^{***}
Other	---
White Women	-1.4% ^{***}

Source: CHA calculations from the American Community Survey

The analysis indicates that Blacks, Latinos, and White women in Illinois are less likely to form goods businesses compared to White men even after controlling for key factors. (Once again, this analysis does not include Native Americans and Others.) The reduction in probability ranges from 1.4% less to 4.0% less. However, Asian/Pacific Islanders were more likely to form businesses in this industry relative to White men by 2.6%. These estimates are statistically significant at the 99.1 level.

b. Differences in Wage and Salary Incomes

Table D35 presents the findings from the wage and salary income regression analysis examining the goods industry in Illinois. This indicates the wage differential for selected demographic groups in Illinois relative to White men.

Table D35. Wage Differentials for Selected Groups Relative to White Men

Goods, 2007-2011

Demographic Group	Wages Relative to White Men (% Change)
Black	-41.5% **
Latino	-11.6% ***
Native American	-32.4% ***
Asian/Pacific Islander	-32.0% ***
Other	-97.8% ***
White Women	-38.7% ***

Source: CHA calculations from the American Community Survey

*** indicates statistical significance at the 0.001 level

** indicates statistical significance at the 0.01 level

Holding constant factors such as education, age, occupation, and industry, Blacks, Latinos, White women, Asian/Pacific Islanders and Others in Illinois earn less than White men in the goods industry. The differential ranges between 11% less and 97% less. Estimates of the coefficients for, Latino, Native American, Asian/Pacific Islander, Other, and White Women are statistically significant at the 0.001 level. The estimates of the coefficient for Black are statistically significant at the 0.01 level.

c. Differences in Business Earnings

The same approach was used to investigate if there were differences in business earnings received by Non-White male entrepreneurs and White male entrepreneurs. Using the PUMS, we limited the sample to the self-employed and examined how their business income varied in response to factors such as race, gender, age, education, and industry. Table 36 presents these findings.

Table D36. Business Earnings Differentials for Selected Groups Relative to White Men

Goods, 2007-2011

Demographic Group	Earnings Relative to White Men (% Change)
Black	-55.4% ^{***}
Latino	-28.8% ^{***}
Native American	0.0%
Asian/Pacific Islander	-26.1% ^{***}
Other	0.0%
White Women	-68.3% ^{***}

Source: CHA calculations from the American Community Survey
^{***} indicates statistical significance at the 0.001 level

With the exception of the estimated coefficient for Other and Native American, the estimates of the coefficients for these variables were found to be statistically significant at the 0.001 level. The differentials in business earnings received by Non-Whites and White women compared to White males ranged from 26% less to 68% less. For the estimated coefficient for Other and Native American, the results were not found to be significantly statistically different from zero.

d. Conclusion

Using descriptive analysis, Table 33 shows that differentials exist between the business formation rates by Non-Whites and White women and White males. Table 34 presents the results of a further statistical analysis, which indicated that even after taking into account potential mitigating factors, the differential still exists. Tables 35 and 36 present data indicating differentials in wage and business earnings after controlling for possible explanatory factors. These analyses support the conclusion that barriers to business success do affect Non-Whites and White women entrepreneurs.

APPENDIX E

QUALITATIVE EVIDENCE OF RACE AND GENDER DISPARITIES IN THE DISTRICT'S MARKET

As discussed in Appendix A, in addition to quantitative data, a disparity study should further explore anecdotal evidence of experiences with discrimination in contracting opportunities because such proof is relevant to the question of whether observed quantitative disparities are due to discrimination and not to some other non-discriminatory cause or causes. As observed by the Supreme Court, anecdotal evidence can be persuasive because it brings “the cold [statistics] convincingly to life.”¹⁶⁶ Anecdotal evidence has been found relevant regarding barriers both to minority firms’ business formation and to their success on governmental projects.¹⁶⁷ While anecdotal evidence is insufficient standing alone, “[p]ersonal accounts of actual discrimination or the effects of discriminatory practices may, however, vividly complement empirical evidence. Moreover, anecdotal evidence of a [government’s] institutional practices that exacerbate discriminatory market conditions are [sic] often particularly probative.”¹⁶⁸ “[W]e do not set out a categorical rule that every case must rise or fall entirely on the sufficiency of the numbers. To the contrary, anecdotal evidence might make the pivotal difference in some cases; indeed, in an exceptional case, we do not rule out the possibility that evidence not reinforced by statistical evidence, as such, will be enough.”¹⁶⁹

There is no requirement that anecdotal testimony be “verified” or corroborated, as befits the role of evidence in legislative decision-making as opposed to judicial proceedings. “Plaintiff offers no rationale as to why a fact finder could not rely on the State’s ‘unverified’ anecdotal data. Indeed, a fact finder could very well conclude that anecdotal evidence need not—indeed cannot—be verified because it ‘is nothing more than a witness’ narrative of an incident told from the witness’ perspective and including the witness’ perception.”¹⁷⁰ Likewise, the Tenth Circuit held that “Denver was not required to present corroborating evidence and [plaintiff] was free to present its own witnesses to either refute the incidents

¹⁶⁶ *International Brotherhood of Teamsters v. United States*, 431 U.S. 324, 399 (1977).

¹⁶⁷ *Adarand Constructors, Inc. v. Slater*, 228 F.3d 1147, 1168-1172 (10th Cir. 2000), i, 532 U.S. 941, then dismissed as improvidently granted, 534 U.S. 103 (2001).

¹⁶⁸ *Concrete Works of Colorado, Inc. v. City and County of Denver*, 36 F.3d 1513, 1520, 1530 (10th Cir. 1994).

¹⁶⁹ *Engineering Contractors Association of South Florida, Inc. v. Metropolitan Dade County*, 122 F.3d 895, 926 (11th Cir. 1997).

¹⁷⁰ *Id.* at 949.

described by Denver’s witnesses or to relate their own perceptions on discrimination in the Denver construction industry.”¹⁷¹

To explore this type of anecdotal evidence of possible discrimination against minorities and women in the District’s geographic and industry markets, we conducted 6 group interviews, totaling 83 participants, and one stakeholders meeting. We interviewed business owners from a broad cross section of the industries from which the District purchases. Firms ranged in size from large national businesses to decades-old family-owned firms to start-ups. Owners’ backgrounds included individuals with decades of experience in their fields and entrepreneurs starting their own businesses. We sought to explore their experiences in seeking and performing public and private sector prime contracts and subcontracts, both with government agencies and in the private sector. We also elicited recommendations for improvements to the M/WBE Program, as discussed in Appendix B.

Many M/WBE participants reported that while some progress has been made in integrating their firms into public and private sector contracting activities through race- and gender-conscious contracting programs, significant barriers remain. Affirmative action measures were critical to the survival of their businesses.

The following are summaries of the issues discussed. Quotations are indented, and have been edited for readability. They are representative of the views expressed by participants over the many sessions.

A. Discriminatory Attitudes and Negative Perceptions of Competence

Many minority and women owners reported they experience discriminatory attitudes and negative assumptions about their competency, capacities and qualifications. They are often presumed to be less qualified and capable.

Most companies don’t throw out MBE, WBE, DBE on their front page... Because if you lead with that, the perception is that you can’t do the job.

We used to say we’re certified, da, da, da, da, but we found it being as very much a negative.

[The term] disadvantaged as we move farther out from the historical reason for using that term, has a negative connotation.

They try to put a stigma on us.... It’s like a stigma that they have to use us because there’s participation requirements and they make

¹⁷¹ Concrete Works of Colorado, Inc. v. City and County of Denver, 321 F.3d 95, 989 (10th Cir. 2003), cert. denied, 540 U.S. 1027 (2003).

us sound like we're not good at what we do. And there are some really good MBE, WBEs out there.

Prime contractors think we're disadvantaged because we're subpar.

[In my recent work] with this new organization that's here from China, someone has already talked to these fellas, because the impression I get is when we're talking about subcontracting with DBEs it's like to them there is a stigma that we have to use these folks.... Someone has already educated these people that can barely speak English that are minorities [themselves that DBEs are less capable].

The stigma is perpetuated by some of the larger [contracting] organizations, the more male dominated organizations that are out there. Because you go to different meetings and they want it on record that they have all these issues with DBE contractors.

When we started the company, my partner is White— so this is 26 years ago— I thought it was very simple. When we go to a White client, you open your mouth. They'll talk to you. When we go to a minority client, I'll open my mouth and they'll listen to me. Well, I was very naive because turns out whether we went to a White client or Black client they listened to him. So, this perception is not just a White perception. I've learned that this perception is almost universal. Many times when I meet the employees in a high position in the government sector that are Black they are tougher to deal with. I may find a White guy that's willing to help me more because he's more sympathetic.

I was at the City vendor fair. I had a gentleman that came up to my table and said, well do you have a list of competent contractors because the issue that we have is because the minority and the other companies are so small we get them, they start working and they have to bail on us because they go out of business. So I'm only interested in hiring workers who are competent and who are stable who can maintain the contract.

Long established firms still had their capabilities and industry knowledge questioned.

Recently, I was invited to participate [as part of a general contractor's M/WBE outreach efforts] in a mock bid.... We actually did a lot of their competitor's stores, facilities. So I called them up, I said, if I don't do this mock bid, will I be disqualified? I've built enough of these. They gave me a pass on it.... I wasn't going to put in two weeks of time to put a bid together that means nothing [after 30 plus years in business].

One of the major concrete contractors ... called me for a bid on a job that would never give me any work, ever, and said you know, honey, you really have to make sure you're low on this job because this is high profile work and if you're not low you're not going to get the job. And I said, are you kidding me? I said I always get jobs because I'm high. Every single one. [My sarcasm] went right over his head. And I've known this man for 20 years.

Many women stated they still face sexist attitudes and behaviors.

There is an old boys network that is misogynistic. Let's just be honest with it... You're a woman, you possibly can't do that. That's a ridiculous notion anymore, at least in my perspective. But I can tell you of all of the W[BE]s that I know, they have that problem working in a male dominated situation where unless, and I hate to say it in these terms, unless you're related or have some inside track you're not going to get selected unless they absolutely have to use you for something. ... There's a lot more women entering the [engineering] field. But that's going to take awhile and overcoming that prejudice [won't be easy].

[On jobsites, I get] hey blondie, what's your name?

Pernicious attitudes and other barriers were especially problematic for M/WBEs that want to move into the prime vendor position.

One of the reasons why I did not pursue certification again, I decided to go as a prime, because I felt like there was a stigma attached to minority. The stigma being not very good, and I found more obstacles as a minority than as a regular prime. The designation I felt carries a burden.

If you have an MBE, WBE status it somehow implies non-prime.

We were a general contractor that happens to be a minority, not a minority that happens to be a general contractor. And there's a big difference in that.

We can do the work, but there's this internal sort of thought by agencies and by other larger firms that how could they possibly have the capacity. They can't handle a ten million dollar job. That's too big for them.

No matter how much capacity you have you're still relative to somebody who has more, you're going to be deemed less and not going to get necessarily the nod when they put the things on the street. Even if the scope of work is far less than what you can bring to the table with cash.

I can finance growth but I need work to do that. And that builds my capacity. What it boils down to is breaking through that barrier.

The general contractors are the only ones that get to the size of graduation and they generally don't go out of business once they graduate. Our subcontractors don't ever get to that size because of the fact that they don't have private work to grow off of. They only have this MBE, WBE work.

The problem is the subcontractors. How to get them work as primes would be something that would really help people control their own destiny?

B. Access to Industry and Professional Networks

Difficulties breaking into industry and professional networks were reported across many industries and by minorities and white females.

The support system that small White businesses have in the United States is far greater than the support system that a Puerto Rican business has or an African-American business has.... And not just networks as in who you know. Networks to money, the ease of cash flow.... The networks and gaining access to those is really the fundamental difference that I see [between M/WBEs and small White-male owned firms].

We just decided that we're going to try to be more involved in [the industry organization] to make connections. Well, you could probably count on one hand most of the time any minorities in there.... [Then] they came up with the idea, hey, maybe we should have a focus on DBEs.... And they couldn't understand why we're not getting a lot of new people..... Nobody came over and said, hey welcome, you're new. And obviously there aren't that many Hispanic females sitting there so it's not like they mistook me for somebody else or they'd seen me before.

I'm sure there is gender and I am sure there is racial bias in terms of how the jobs are, and the opportunities present themselves. But I'm also saying a critical and important issue is knowledge of the industry and the players who are in the industry and the affiliations that you have with those players. I get a lot of opportunities not because, you know, I'm a Black guy. But because of classmates and folks that I've worked with in the past who know the quality of my work and the quality that accompanies us and they'll reach out to me to say, even for non-minority participate and opportunities.

You have a majority firm that may have the exact same qualifications that every single person on my roster, probably a lot

less, because everyone on my roster has at least a master's in their field and at least fifteen years. But the expectation that if you are coming in as a WBE or an MBE that you may not have the capacity to do the work without first kind of assuming that. So what has helped is when there has been an interview process. So let's put you side by side, apples to apples, and let's have you come in. So then you can articulate where your ability is.

C. Obtaining Work on an Equal Basis

These types of barriers lead minorities and women to unanimous agreement that goals remain necessary to level the playing field and equalize opportunities on District jobs so that M/WBEs can compete on a fair and equal basis. Without goals, they believed they would be shut out of District contracts.

We would not get work if we weren't certified.

Where there have been goals and I've been on teams and they took away goals for whatever reason, I was denied the opportunity. Flat out. Taken off the team.

I believe if the set aside program were to go away we would not be in business.

We were until last year an MBE, WBE, DBE and we didn't go through the DBE process again and we dropped that. And immediately, [prime consultants said we are not] not hiring you, even though we've done business in the past, we've done well, we had a good relationship but they need to fill their [goal].... It gave us work, so we definitely appreciate that part.

There's no way that I'd be working. I mean I would have to be an employee of those people, you know, of these primes if I wanted to work in this field. I would not be able to go on my own if it wasn't for the goal-oriented programs.

[When the prime vendor has met the goal, it does not send more work because] we don't have to use WBE now so we won't.

We've probably in the 25 years we've had a job on the books with [a general contractor he met through the program at another agency] for 20 of those years. That was a positive.

The general contractors are the only ones that get to the size of graduation and they generally don't go out of business once they graduate. Our subcontractors don't ever get to that size because of the fact that they don't have private work to grow off of. They only have this MBE, WBE work.

Over years and years and years and years sometimes you just wear [the general contractor] down. Where they can't keep saying no, I don't need that, I don't want that. So I mean that's been part of it.

If you remove the program you're going to remove access for a lot of the firms.

Many minority and women owners endorsed setting aside some smaller contracts for bidding only by small firms on a race- and gender-neutral basis. This is especially useful because offers M/WBEs the opportunity to compete against like sized firms as prime vendors.

I think [a setaside is] great.

However, given the District's history of very slow pay, several participants were wary of acting as prime vendors.

I'd caution anybody participating in that if the County's still running the system like they are now. Be prepared to be strung out for an extreme amount of time on your finances.

If they fix the [slow] payment thing, then yes [a setaside is a good idea].

D. Conclusion

Consistent with other evidence reported in this Study, anecdotal interview information strongly suggests that minorities and women continue to suffer discriminatory barriers to full and fair access to District and private sector contracts and subcontracts. While not definitive proof that the District may apply race- and gender-conscious measures to increase opportunities, the results of the personal interviews are the types of evidence that, especially when considered alongside the statistical evidence in this Report, the courts have found to be highly probative of whether the District may use narrowly tailored M/WBE contract goals to reduce discriminatory impacts and barriers.

APPENDIX F

MASTER M/W/BE DIRECTORY

To supplement race and sex information in Dun & Bradstreet/Hoovers used to estimate M/WBE availability in the District's market area, we identified 118 organizations that might have lists of minority, women and disadvantaged firms. We included national entities and organizations from neighboring states because of the possibility that firms on these lists might be doing business with the District. These lists were used to supplement data on the race and sex of firms' ownership to improve the accuracy and coverage of race and sex assignments to estimate M/WBE availability.

In addition to Cook County's certification list, we obtained lists from the following entities:

- Business Research Services
- Chicago Chinatown Chamber of Commerce
- Chicago Minority Suppliers Development Council
- Chicago Rockford International Airport
- Chicago United
- Chicago Urban League
- City of Chicago
- City of Rockford
- Diversity Information Resources
- DuPage County
- Illinois Department of Central Management Services
- Illinois State Black Chamber of Commerce
- Illinois UCP
- National Organization of Minority Architects
- Small Business Administration/Central Contractor Registry
- Suburban Minority Contractors Association
- Black Contractors United
- Federation of Women Contractors
- Hispanic American Construction Industry
- Women Construction Owners & Executives

The following entities had relevant lists of MWDBEs that were duplicates of the lists we obtained:

Abraham Lincoln Capital Airport
Central Illinois Regional Airport
Chicago Midway International Airport
Chicago O'Hare International Airport
Chicago Public Schools
Chicago Transit Authority
Greater Peoria Regional Airport
Illinois Department of Transportation
Illinois Tollway
METRA (Chicago Railway)
Metropolitan Pier and Exposition Authority
University of Illinois
University of Illinois Willard Airport

The following entities either did not have a list of MWDBEs or the list did not include race and gender information:

American Indian Development Association
Champaign County
Chicago Black Pages
Village of Arlington Heights
City of Cicero
City of Elgin
City of Evanston
City of Joliet
City of Naperville
Village of Schaumburg
City of Waukegan
Decatur Airport
Hispanic Lawyers Association of Illinois
Illinois Hispanic Chamber of Commerce
Joliet Region Chamber of Commerce
Kane County
Kankakee County
Kendall County
Lake County
Marshall County
McHenry County
McLean County
Menard County

National Center of American Indian Enterprise Development
Rock Island County
Society of Taiwanese Americans
Tazewell County
The John Marshall Law School
Vermillion County
Williamson County Regional Airport
Rogers Park Business Alliance
Association of Asian Construction Enterprises
Taiwanese American Professionals Chicago

We were unable to obtain lists from the following entities:

Alliance of Business Leaders & Entrepreneurs
Arab American Bar Association of Illinois
Arquitectos - The Society of Hispanic Professional Architects
Asian American Alliance
Asian American Bar Association of the Greater Chicago Area
Asian American Institute
Asian American Small Business Association
Black Chamber of Commerce of Lake County
Chatham Business Association, Small Business Development
Chicago State University
Chicago Women in Architecture
Aurora Regional Chamber of Commerce
City of Aurora
City of Springfield
Coalition of African American Leaders
Cosmopolitan Chamber of Commerce
Enterpriz Cook County
Hispanic SMB
Illinois Department of Commerce and Economic Opportunity
Indian American Bar Association
MidAmerica St. Louis Airport
National Association of Women Business Owners
National Society of Hispanic MBAs - Chicago Chapter
Puerto Rican Bar Association of Illinois
Puerto Rican Chamber of Commerce
Quad City International Airport
Rainbow Push Coalition International Trade Bureau
Rockford Black Pages
St. Clair County

Tribal Procurement Institute PTAC
Will County
Women's Bar Association
Business Partners - The Chamber for Uptown
Philippine American Chamber of Commerce of Greater Chicago
Korea Business Association
Korean American Association of Chicago
Chicago Korean American Chamber of Commerce
Taiwanese American Chamber of Commerce of Greater Chicago
Taiwanese Chambers of Commerce of North America
Vietnamese American National Chamber of Commerce
West Ridge Chamber of Commerce
Arab American Association for Engineers & Architects
Chicago Minority Business Association
Association of Subcontractors & Affiliates

The following entities declined to provide either their list or the race and gender information in their list:

Aurora Hispanic Chamber of Commerce
Austin Chamber of Commerce
Black Women Lawyers of Greater Chicago, Inc.
Latin American Chamber of Commerce
Women's Business Development Center
African American Contractors Association

APPENDIX G

FURTHER EXPLANATION OF THE MULTIPLE REGRESSION ANALYSIS

As explained in the study, the multiple regression statistical techniques seek to explore the relationship between a set of independent variables and a dependent variable. The following equation is a way to visualize this relationship:

$$DV = f(D, I, O),$$

where DV is the dependent variable; D is a set of demographic variables; I is a set of industry & occupation variables; and O is a set of other independent variables.

The estimation process takes this equation and transforms it into:

$$DV = C + (\beta_1 * D) + (\beta_2 * I) + (\beta_3 * O) + \mu,$$

where C is the constant term; β_1 , β_2 and β_3 are coefficients, and μ is the random error term.

The statistical technique seeks to estimate the values of the constant term and the coefficients.

In order to complete the estimation, the set of independent variables must be operationalized. For demographic variables, the estimation used race, gender and age. For industry and occupation variables, the relevant industry and occupation were utilized. For the other variables, education and the state of residence were used.

A coefficient was estimated for each independent variable. The broad idea is that a person's wage or earnings is dependent upon the person's race, gender, age, industry, occupation, and education. An additional factor was included: because of our interest in the impact of race and gender on wages and earnings, we made the assumption that the impact of those variables might vary from state to state (*i.e.*, the impact of being Black on wages is different in Illinois than it is in Alabama). We therefore developed new variables that would show the interaction between race and gender and one particular state. Since this Report examined Illinois, that was the state employed. The coefficient for the new variable showed the impact of being a member of that race or gender in Illinois. Consequently, the impact of race or gender on wages or earnings had two components: the national coefficient and the state-specific impact.

APPENDIX H

FURTHER EXPLANATION OF THE PROBIT REGRESSION ANALYSIS

Probit regression is a special type of regression analysis. While there are many differences between the underlying estimation techniques used in the probit regression and the standard regression analysis, the main differences from the lay person's point of view lie in the nature of dependent variable and the interpretation of the coefficients associated with the independent variables.

The basic model looks the same:

$$DV = f(D, I, O),$$

where DV is the dependent variable; D is a set of demographic variables; I is a set of industry & occupation variables; and O is a set of other independent variables.

The estimation process takes this equation and transforms it into:

$$DV = C + (\beta_1 * D) + (\beta_2 * I) + (\beta_3 * O) + \mu,$$

where C is the constant term; β_1 , β_2 , and β_3 are coefficients, and μ is the random error term.

In the standard regression model, the dependent variable is continuous and can take on many values, in the probit model, the dependent variable is dichotomous and can take on only two values: zero or one. For instance, in the standard regression analysis, we may be exploring the impact of a change in some independent variable on wages. In this case, the value of one's wage might be any non-negative number. In contrast, in the probit regression analysis, the exploration might be the impact of a change in some independent variable on the probability that some event occurs. For instance, the question might be how an individual's gender impacts the probability of that person forming a business. In this case, the dependent variable has two values: zero, if a business is not formed; one, if a business is formed.

The second significant difference—the interpretation of the independent variables' coefficients—is fairly straight-forward in the standard regression model: the unit change in the independent variable impacts the dependent variable by the amount of the coefficient.¹⁷² However, in the probit model, the initial coefficients cannot be interpreted this way. One additional step --- which can be computed easily by most statistical packages --- must be undertaken in order to yield a result that indicates how the change in the independent variable affects the probability of an event (*e.g.* business formation) occurs. For instance, using our previous example of the impact on gender on business formation, if the independent variable was WOMAN (with a value of 0 if the individual was male and 1 if the individual was female) and the final transformation of the coefficient of WOMAN was -0.12, we would interpret this to mean that women have a 12% lower probability of forming a business compared to men.

¹⁷² The exact interpretation depends upon the functional form of the model.

APPENDIX I

SIGNIFICANCE LEVELS

Many tables in this report contain asterisks indicating a number has statistical significance at 0.001 or 0.01 levels and the body of the report repeats these descriptions. While the use of the term seems important, it is not self-evident what the term means. This appendix provides a general explanation of significance levels.

This report seeks to address the question whether non-Whites and White women received disparate treatment in the economy relative to White males. From a statistical viewpoint, this primary question has two sub-questions:

- What is the relationship between the independent variable and the dependent variable?
- What is the probability that the relationship between the independent variable and the dependent variable is equal to zero?

For example, an important question facing the District as it explores the necessity of intervening in the marketplace through contract goals to ensure it is not a passive participant in the continuation of historic and contemporary bias is do non-Whites and White women receive lower wages than White men? As discussed in Appendix B, one way to uncover the relationship between the dependent variable (*e.g.*, wages) and the independent variable (*e.g.*, non-whites) is through multiple regression analysis. An example helps to explain this concept.

Let us say this analysis determines that non-Whites receive wages that are 35% less than White men after controlling for other factors, such as education and industry, which might account for the differences in wages. However, this finding is only an estimate of the relationship between the independent variable (*e.g.*, non-Whites) and the dependent variable (*e.g.*, wages) – the first sub-question. It is still important to determine how accurate is that estimation, that is, what is the probability the estimated relationship is equal to zero – the second sub-question.

To resolve the second sub-question, statistical hypothesis tests are utilized. Hypothesis testing assumes that there is no relationship between belonging to a particular demographic group and the level of economic utilization relative to White men (*e.g.*, non-Whites earn identical wages compared to White men or non-Whites earn 0% less than White men). This sometimes called the null hypothesis. We then calculate a confidence interval to find explore the probability that the observed relationship (*e.g.*, - 35%) is between 0 and minus that confidence interval.¹⁷³ The confidence interval will vary depending upon the level of confidence (statistical significance) we wish to have in our conclusion. Hence, a statistical significance of 99% would have a broader confidence interval than statistical significance of 95%. Once a confidence interval is established, if -35% lies outside of that interval, we can assert the observed relationship (*e.g.*, 35%) is accurate at the appropriate level of statistical significance.

¹⁷³ Because 0 can only be greater than -35%, we only speak of “minus the confidence level”. This is a one-tailed hypothesis test. If, in another example, the observed relationship could be above or below the hypothesized value, then we would say “plus or minus the confidence level” and this would be a two-tailed test.

APPENDIX J

ADDITIONAL DATA FROM THE ANALYSIS OF THE SURVEY OF BUSINESS OWNERS¹⁷⁴

Table J1. Demographic Distribution of Sales and Payroll Data
Construction, 2007

	Total Number of Firms (All Firms)	Sales & Receipts (All Firms) (\$1,000)	Number of Firms with Paid Employees (Employer Firms)	Sales & Receipts Firms with Paid Employees (Employer Firms) (\$1,000)	Number of Paid Employees	Annual payroll (\$1,000)
Panel A: Distribution of Non-White Firms						
Black	3.5%	0.9%	0.8%	0.8%	1.0%	0.9%
Latino	6.0%	1.8%	3.2%	1.6%	2.6%	2.1%
Native American	0.4%	0.1%	0.2%	0.1%	0.1%	0.1%
Asian	1.0%	0.5%	0.8%	0.5%	0.6%	0.6%
Panel B: Distribution of All Firms						
Non-White	10.9%	3.2%	4.6%	2.9%	4.0%	3.6%
White Women	7.5%	6.5%	9.2%	6.5%	9.3%	8.8%
White Men	66.0%	65.5%	62.8%	65.5%	63.5%	64.6%
Equally Non-white & White	S	S	S	S	S	S
Equally Women & Men	13.0%	7.9%	17.5%	7.0%	9.9%	7.8%
Firms Not Classifiable	2.1%	16.8%	5.8%	18.0%	13.1%	15.0%
All Firms	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: CHA calculations from Survey of Business Owners

¹⁷⁴ See Footnote 158 for an explanation of the reported value of "S".

Table J2. Demographic Distribution of Sales and Payroll Data – Aggregated Groups
Professional, Scientific, and Technical Services, 2007

	Total Number of Firms (All Firms)	Sales & Receipts (All Firms) (\$1,000)	Number of Firms with Paid Employees (Employer Firms)	Sales & Receipts Firms with Paid Employees (Employer Firms) (\$1,000)	Number of Paid Employees	Annual payroll (\$1,000)
Panel A: Distribution of Non-White Firms						
Black	4.9%	0.8%	1.3%	0.7%	0.9%	0.7%
Latino	3.2%	0.9%	1.7%	0.8%	1.0%	0.6%
Native American	S	S	S	S	S	S
Asian	5.5%	2.6%	5.1%	2.4%	2.4%	2.4%
Panel B: Distribution of All Firms						
Non-White	14.2%	4.3%	7.8%	3.7%	4.2%	3.7%
White Women	23.0%	6.2%	16.4%	5.1%	6.6%	4.8%
White Men	48.3%	37.3%	57.5%	36.0%	37.8%	36.2%
Equally Non-white & White	1.3%	0.2%	0.4%	0.2%	0.2%	0.1%
Equally Women & Men	10.7%	3.8%	9.7%	3.1%	3.8%	2.4%
Firms Not Classifiable	2.5%	48.3%	8.2%	51.9%	47.4%	52.8%
All Firms	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: CHA calculations from Survey of Business Owners

Table J3. Demographic Distribution of Sales and Payroll Data – Aggregated Groups
Information, 2007

	Total Number of Firms (All Firms)	Sales & Receipts (All Firms) (\$1,000)	Number of Firms with Paid Employees (Employer Firms)	Sales & Receipts Firms with Paid Employees (Employer Firms) (\$1,000)	Number of Paid Employees	Annual payroll (\$1,000)
Panel A: Distribution of Non-White Firms						
Black	8.0%	1.7%	1.2%	1.7%	0.9%	3.0%
Latino	3.0%	0.2%	0.8%	0.1%	0.2%	0.1%
Native American	S	S	S	S	S	S
Asian	3.8%	0.7%	3.0%	0.6%	0.7%	0.8%
Panel B: Distribution of All Firms						
Non-White	15.1%	2.5%	4.9%	2.4%	1.7%	3.9%
White Women	20.9%	1.2%	14.2%	1.1%	2.5%	1.5%
White Men	46.1%	13.9%	46.0%	13.5%	18.4%	17.4%
Equally Non-white & White	S	S	S	S	S	S
Equally Women & Men	10.5%	0.8%	11.2%	0.7%	1.8%	0.9%
Firms Not Classifiable	6.1%	81.4%	23.1%	82.2%	75.5%	76.2%
All Firms	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: CHA calculations from Survey of Business Owners

Table J4. Demographic Distribution of Sales and Payroll Data – Aggregated Groups
Services, 2007

	Total Number of Firms (All Firms)	Sales & Receipts (All Firms) (\$1,000)	Number of Firms with Paid Employees (Employer Firms)	Sales & Receipts Firms with Paid Employees (Employer Firms) (\$1,000)	Number of Paid Employees	Annual payroll (\$1,000)
Panel A: Distribution of Non-White Firms						
Black	12.9%	0.7%	2.1%	0.4%	1.2%	0.6%
Latino	5.6%	1.0%	8.4%	0.8%	S	S
Native American	S	S	S	S	S	S
Asian	5.9%	1.7%	S	S	S	S
Panel B: Distribution of All Firms						
Non-White	24.7%	3.1%	11.8%	2.5%	5.1%	3.3%
White Women	23.1%	3.4%	14.7%	2.7%	6.0%	3.9%
White Men	36.4%	20.9%	44.9%	19.4%	28.9%	24.7%
Equally Non-white & White	S	S	S	S	S	S
Equally Women & Men	10.9%	3.3%	14.6%	2.7%	5.9%	3.8%
Firms Not Classifiable	3.8%	69.0%	13.5%	72.5%	53.8%	64.1%
All Firms	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: CHA calculations from Survey of Business Owners

Table J5. Demographic Distribution of Sales and Payroll Data – Aggregated Groups
Goods, 2007

	Total Number of Firms (All Firms)	Sales & Receipts (All Firms) (\$1,000)	Number of Firms with Paid Employees (Employer Firms)	Sales & Receipts Firms with Paid Employees (Employer Firms) (\$1,000)	Number of Paid Employees	Annual payroll (\$1,000)
Panel A: Distribution of Non-White Firms						
Black	4.1%	0.2%	0.9%	0.2%	0.3%	0.3%
Latino	4.2%	0.5%	2.4%	0.5%	0.8%	0.6%
Native American	S	S	S	S	S	S
Asian	5.8%	1.1%	7.3%	1.0%	1.5%	1.1%
Panel B: Distribution of All Firms						
Non-White	14.3%	1.7%	9.7%	1.7%	2.5%	1.9%
White Women	24.7%	2.6%	12.4%	2.5%	4.2%	3.7%
White Men	38.5%	24.4%	50.1%	24.3%	34.9%	34.2%
Equally Non-white & White	S	S	S	S	S	S
Equally Women & Men	16.6%	2.8%	16.6%	2.6%	5.3%	3.9%
Firms Not Classifiable	4.8%	68.6%	11.4%	68.9%	53.0%	56.3%
All Firms	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: CHA calculations from Survey of Business Owners

APPENDIX K: ADDITIONAL DATA FROM THE ANALYSIS OF AMERICAN COMMUNITY SURVEY

Table K1. Partial Results from Log-linear Regression Analysis

All Industries, 2007-2011

Dependent Variable: Logarithm of Wages	
Independent Variable	Coefficient
Black	-.296***
Latino	-.186***
Native American	-.326***
Asian/Pacific Islander	-.277***
Other	-.234***
White Women	-.324***
IL_Black	-.0473***
IL_Latino	.0648***
IL_Native American	-0.072
IL_Asian/Pacific Islander	-.0275**
IL_Other	-0.048
IL_White Women	-.0145**
Adjusted R-Squared	0.486

legend: * p<0.05; ** p<0.01; ***p<0.001

Source: CHA calculations from the American Community Survey

Table K2. Partial Results from Log-linear Regression Analysis

All Industries, 2007-2011

Dependent Variable: Logarithm of Business Earnings	
Independent Variable	Coefficient
Black	-.444***
Latino	-.255***
Native American	-.493***
Asian/Pacific Islander	-.242***
Other	-.123**
White Women	-.532***
IL_Black	0.034
IL_Latino	0.026
IL_Native American	-0.248
IL_Asian/Pacific Islander	0.034
IL_Other	0.118
IL_White Women	-0.035
Adjusted R-Squared	0.197
legend: * p<0.05; ** p<0.01; ***p<0.001 Source: CHA calculations from the American Community Survey	

Table K3. Partial Results from Probit Regression Analysis

All Industries, 2007-2011

Dependent Variable: Probability of Forming a Business	
Independent Variable	Coefficient
Black	-0.383
Latino	-0.256
Native American	-0.235
Asian/Pacific Islander	-0.109
Other	-0.067
White Women	-0.202
IL_Black	0.037
IL_Latino	-0.066
IL_Native American	0.168
IL_Asian/Pacific Islander	0.059
IL_Other	-0.122
IL_White Women	0.015
Pseudo R-Square	0.242

Source: CHA calculations from the American Community Survey

Table K4. Partial Results from Log-linear Regression Analysis

Construction, 2007-2011

Dependent Variable: Logarithm of Wages	
Independent Variable	Coefficient
Black	-.387***
Latino	-.133***
Native American	-.36***
Asian/Pacific Islander	-.25***
Other	-.133***
White Women	-.38***
IL_Black	-.123***
IL_Latino	0.0214
IL_Native American	0.18
IL_Asian/Pacific Islander	-.265***
IL_Other	0.127
IL_White Women	-.0696**
Adjusted R-Squared	0.302
legend: * p<0.05; ** p<0.01; ***p<0.001	

Source: CHA calculations from the American Community Survey

Table K5. Partial Results from Log-linear Regression Analysis

Construction, 2007-2011

Dependent Variable: Logarithm of Business Earnings	
Independent Variable	Coefficient
Black	-.492***
Latino	-.0612***
Native American	-.258***
Asian/Pacific Islander	-.1**
Other	0.0441
White Women	-.515***
IL_Black	.229*
IL_Latino	0.138
IL_Native American	0.0293
IL_Asian/Pacific Islander	-0.00983
IL_Other	0.976
IL_White Women	.321**
Adjusted R-Squared	0.158
legend: * p<0.05; ** p<0.01; ***p<0.001	

Source: CHA calculations from the American Community Survey

Table K6. Partial Results from Probit Regression Analysis

Construction, 2007-2011

Dependent Variable: Probability of Forming a Business	
Independent Variable	Coefficient
Black	-0.299
Latino	-0.287
Native American	-0.316
Asian/Pacific Islander	-0.032
Other	-0.113
White Women	-0.085
IL_Black	0.172
IL_Latino	-0.122
IL_Native American	0.213
IL_Asian/Pacific Islander	0.000
IL_Other	-1.128
IL_White Women	0.010
Pseudo R-Square	0.11

Source: CHA calculations from the American Community Survey

Table K7. Partial Results from Log-linear Regression Analysis

Services, 2007-2011

Dependent Variable: Logarithm of Wages	
Independent Variable	Coefficient
Black	-.367***
Latino	-.252***
Native American	-.412***
Asian/Pacific Islander	-.283***
Other	-.259***
White Women	-.342***
IL_Black	-.0777***
IL_Latino	0.00162
IL_Native American	-.301*
IL_Asian/Pacific Islander	-0.03
IL_Other	-0.2
IL_White Women	-.0578***
Adjusted R-Squared	0.395
legend: * p<0.05; ** p<0.01; ***p<0.001	

Source: CHA calculations from the American Community Survey

Table K8. Partial Results from Log-linear Regression Analysis

Services, 2007-2011

Dependent Variable: Logarithm of Business Earnings	
Independent Variable	Coefficient
Black	-.531***
Latino	-.373***
Native American	-.771***
Asian/Pacific Islander	-.338***
Other	-.27**
White Women	-.616***
IL_Black	-0.101
IL_Latino	-0.0557
IL_Native American	-0.218
IL_Asian/Pacific Islander	0.0659
IL_Other	-1.62
IL_White Women	-.11*
Adjusted R-Squared	.179
legend: * p<0.05; ** p<0.01; ***p<0.001	

Source: CHA calculations from the American Community Survey

**Table K9. Partial Results from Probit
Regression Analysis**

Services, 2007-2011

Dependent Variable: Probability of Forming a Business	
Independent Variable	Coefficient
Black	-0.477
Latino	-0.310
Native American	-0.377
Asian/Pacific Islander	-0.334
Other	-0.167
White Women	-0.283
IL_Black	-0.018
IL_Latino	-0.022
IL_Native American	0.442
IL_Asian/Pacific Islander	0.092
IL_Other	-0.391
IL_White Women	0.010
Pseudo R-Square	0.193

Source: CHA calculations from the American Community Survey

Table K10. Partial Results from Log-linear Regression Analysis

Goods, 2007-2011

Dependent Variable: Logarithm of Wages	
Independent Variable	Coefficient
Black	-.317***
Latino	-.235***
Native American	-.324***
Asian/Pacific Islander	-.32***
Other	-.24***
White Women	-.387***
IL_Black	-.0977**
IL_Latino	.119***
IL_Native American	0.0578
IL_Asian/Pacific Islander	-0.00309
IL_Other	-.738***
IL_White Women	0.00589
Adjusted R-Squared	0.391
legend: * p<0.05; ** p<0.01; ***p<0.001	

Source: CHA calculations from the American Community Survey

Table K11. Partial Results from Log-linear Regression Analysis

Goods, 2007-2011

Dependent Variable: Logarithm of Business Earnings	
Independent Variable	Coefficient
Black	-.554***
Latino	-.288***
Native American	-0.213
Asian/Pacific Islander	-.261***
Other	0.326
White Women	-.683***
IL_Black	-0.0222
IL_Latino	0.341
IL_Native American	(omitted)
IL_Asian/Pacific Islander	-0.00143
IL_Other	-1.05
IL_White Women	-0.185
Adjusted R-Squared	0.094

legend: * p<0.05; ** p<0.01; ***p<0.001

Source: CHA calculations from the American Community Survey

**Table K12. Partial Results from Probit
Regression Analysis**

Goods, 2007-2011

Dependent Variable: Probability of Forming a Business	
Independent Variable	Coefficient
Black	-0.300
Latino	-0.127
Native American	-0.031
Asian/Pacific Islander	0.196
Other	-0.001
White Women	-0.105
IL_Black	-0.163
IL_Latino	0.182
IL_Native American	-0.217
IL_Asian/Pacific Islander	0.083
IL_Other	0.368
IL_White Women	-0.015
Pseudo R-Square	0.120

Source: CHA calculations from the American Community Survey

Table K13. Partial Results from Log-linear Regression Analysis

Information Technology, 2007-2011

Dependent Variable: Logarithm of Wages	
Independent Variable	Coefficient
Black	-.267***
Latino	-.197***
Native American	-.292***
Asian/Pacific Islander	-.184***
Other	-.255***
White Women	-.246***
IL_Black	.112***
IL_Latino	.116**
IL_Native American	-1.29***
IL_Asian/Pacific Islander	0.0357
IL_Other	0.208
IL_White Women	-0.0277
Adjusted R-Squared	0.386

legend: * p<0.05; ** p<0.01; ***p<0.001

Source: CHA calculations from the American Community Survey

Table K14. Partial Results from Log-linear Regression Analysis

Information Technology, 2007-2011

Dependent Variable: Logarithm of Business Earnings	
Independent Variable	Coefficient
Black	-.42***
Latino	-.339***
Native American	-0.572
Asian/Pacific Islander	-.176*
Other	0.0975
White Women	-.674***
IL_Black	-0.106
IL_Latino	-3.44***
IL_Native American	(omitted)
IL_Asian/Pacific Islander	-0.366
IL_Other	-0.123
IL_White Women	0.147
Adjusted R-Squared	.112

legend: * p<0.05; ** p<0.01; ***p<0.001

Source: CHA calculations from the American Community Survey

Table K15. Partial Results from Probit Regression Analysis

Information Technology, 2007-2011

Dependent Variable: Probability of Forming a Business	
Independent Variable	Coefficient
Black	-0.371
Latino	-0.162
Native American	-0.111
Asian/Pacific Islander	-0.353
Other	-0.070
White Women	-0.148
IL_Black	-0.318
IL_Latino	-0.166
IL_Native American	(omitted)
IL_Asian/Pacific Islander	-0.005
IL_Other	-0.195
IL_White Women	-0.034
Pseudo R-Square	0.087

Table K16. Partial Results from Log-linear Regression Analysis

Construction-related Services , 2007-2011

Dependent Variable: Logarithm of Wages	
Independent Variable	Coefficient
Black	-.248***
Latino	-.202***
Native American	-.281***
Asian/Pacific Islander	-.19***
Other	-.13*
White Women	-.338***
IL_Black	-.244**
IL_Latino	-0.0366
IL_Native American	-0.504
IL_Asian/Pacific Islander	0.0984
IL_Other	0.212
IL_White Women	-0.0293
Adjusted R-Squared	0.424

legend: * p<0.05; ** p<0.01; ***p<0.001

Source: CHA calculations from the American Community Survey

Table K17. Partial Results from Log-linear Regression Analysis

Construction-related Services , 2007-2011

Dependent Variable: Logarithm of Business Earnings	
Independent Variable	Coefficient
Black	-.577***
Latino	-0.0634
Native American	-0.386
Asian/Pacific Islander	-.206*
Other	-1.03
White Women	-.608***
IL_Black	0.558
IL_Latino	0.529
IL_Native American	(omitted)
IL_Asian/Pacific Islander	-2.02**
IL_Other	(omitted)
IL_White Women	-0.612
Adjusted R-Squared	0.094
legend: * p<0.05; ** p<0.01; ***p<0.001	

Source: CHA calculations from the American Community Survey

Table K18. Partial Results from Probit Regression Analysis

Construction-related Services , 2007-2011

Dependent Variable: Probability of Forming a Business	
Independent Variable	Coefficient
Black	-0.375
Latino	-0.079
Native American	-0.048
Asian/Pacific Islander	-0.334
Other	-0.342
White Women	-0.009
IL_Black	-0.003
IL_Latino	-0.133
IL_Native American	(omitted)
IL_Asian/Pacific Islander	-0.124
IL_Other	(omitted)
IL_White Women	0.129
Pseudo R-Square	0.131

Source: CHA calculations from the American Community Survey

APPENDIX L

RECOMMENDATIONS FOR COOK COUNTY FOREST PRESERVE DISTRICT'S MINORITY- AND WOMEN-OWNED BUSINESS ENTERPRISE PROGRAM

The quantitative and qualitative data in this Report provide a thorough examination of the types and quality of evidence the courts require in evaluating the constitutionality of a race- and gender-based program. As required by strict scrutiny, we analyzed evidence of minority- and women-owned firms' utilization by the District as measured by dollars spent, as well as M/WBEs' experiences in obtaining contracts throughout the wider economy. We gathered statistical and anecdotal data to assist the District to determine whether there is a strong basis in evidence for the continued use of race- and gender-conscious annual, aspirational goals, and if so, how to narrowly tailor its M/WBE program. The statistical and anecdotal data presented in the Study strongly suggest that businesses owned by minorities or women continue to suffer discriminatory barriers to full and fair access to District contracts and opportunities throughout the wider economy in which the District operates. Based upon the findings, we make the following recommendations to enhance and strengthen the District's current efforts.

A. Augment Race- and Gender-Neutral Initiatives

The courts require that governments use race- and gender-neutral approaches to the maximum feasible extent to address identified discrimination. This is a critical element of a defensible program. We therefore suggest the following enhancements of the District's current policies and processes, based on the business owner interviews, the input of District staff, and national best practices for M/WBE programs.

1. Implement an Electronic Contract Data Collection, Monitoring and Notification System

A critical element of this Study and a major challenge leading to delays was data collection of full and complete prime contract and associated subcontractor records. As is very common, the District did not have all the information for the Study period needed for the analysis.

Since the Study process began, Cook County Government has purchased a new electronic data collection system for the M/WBE program. The District should also implement this system. A top-flight system should greatly reduce the burden of conducting future research.

The system should have at least the following functionality:

- Full contact information for all firms, including email addresses, NAICS codes, race and gender ownership, and small business certification status.
- Contract/project-specific goal setting, using the data from this study.
- Utilization plan capture for prime contractor's submission of subcontractor utilization plans, including real-time verification of M/WBE certification status and NAICS codes, and proposed utilization/goal validation.
- Contract compliance for certified and non-certified prime contract and subcontract payments for all formally procured contracts for all tiers of all subcontractors, verification of prompt payments to subcontractors, and information sharing between the District, prime vendors, and subcontractors about the status of pay applications.
- Spend analysis of informal expenditures, such as those made with agency credit cards or on purchase orders, to determine the utilization of certified firms.
- Program report generation, that provides data on utilization by industries, race, gender, dollar amount, procurement method, agencies, etc.
- An integrated email and fax notification and reminder engine to notify users of required actions, including reporting mandates and dates.
- Outreach tools for eBlasts and related communications and event management for tracking registration and attendance.
- Import/export integration with existing systems to exchange contract, payment, and vendor data.
- Access by authorized Metra staff, prime contractors and subcontractors to perform all necessary activities.

2. Focus on Reducing Barriers to Prime Contract Awards to Small Firms

Many interview participants stressed the need to increased efforts to reduce barriers to the award of prime contracts to small firms and M/WBEs. Services and commodities contracts in particular may lack meaningful subcontracting elements, so facilitating the participation of small firms and M/WBEs as prime vendors will be key to reducing any barriers to District work in these industries.

Special attention should be paid to reducing experience, bonding and insurance requirements, where possible, so these standards are no greater than necessary to protect the District's interests. Further, efforts to "unbundle" large procurements into smaller contracts should be pursued when feasible. These possible barriers to contracting by small firms have been mentioned by the courts as areas to be evaluated to increase opportunities on a race- and gender-neutral basis. Steps might include reducing or eliminating insurance requirements on smaller contracts and removing the cost of the surety bonds from the calculation of lowest apparent bidder on appropriate solicitations.

Another effective race- and gender-neutral approach to increase prime contract opportunities would be to set aside some smaller contract for bidding only by SBEs as prime contractors. If implemented on a fully race- and gender-neutral basis, this is a constitutionally acceptable method to increase opportunities for all small firms. SBE setasides are especially useful for those industries that do not operate on a prime vendor-subcontractor model, such as consulting services. It will reduce the need to set contract goals to ensure equal opportunities, and is an approach specifically approved by the courts and urged by USDOT under the DBE program.

Many small firms, both M/WBEs and non-M/WBEs, endorsed a small business setaside. The District would have to determine the size limits for contracts (such as contracts under \$500,000) and the types of contracts to be included (such as only single scope jobs or lower dollar value multiple scope projects). It will be critical to keep complete race and gender information on bidders to evaluate whether this is an effective race- and gender-neutral measure to reduce barriers.

3. Increase Access to Information and Networks

While most M/WBEs and small firms were able to obtain information on District bid or proposal opportunities, to do so required significant expenditures of efforts. Increased use of the electronic system for notification, as well as specific outreach events for larger projects, will help to facilitate M/WBEs bidding as prime contractors because of more time to respond, and additional possibilities for utilization as subcontractors on projects with many disciplines.

4. Pay Promptly

Slow payment from the District was a major problem reported by prime vendors and subcontractors, majority firms and M/WBEs alike. Small firms were often discouraged from working on agency jobs because of this cash flow problem. Further, many large majority prime contractors were more reluctant to hire less well capitalized small firms who might need to be paid to remain in business before the District has paid to the prime vendor. In view of the well recognized capital barriers often faced by M/WBEs, slow payments have a particularly

negative impact on such firms' ability to do agency work. It is therefore imperative that the District reduce payment times and adopt the use of electronic funds transfers to speed up payments.

Several small subcontractors reported it is difficult to find out when the prime vendor has been paid. Posting payment information on the website would be helpful to subcontractors in determining when to contact the prime contractors.

5. Reduce or Eliminate Retainage

The holding of retention until the contract is closed out— often as high as 10 percent of the total contract price— especially burdens smaller firms and was repeatedly mentioned as a race-and gender-neutral barrier to doing District work. Final payments are often where firms' actual profits are earned, and holding retainage exacerbates the cash flow programs of small firms in general and the effects of slow payment in particular.

The District should consider releasing retainage on a rolling basis for larger contracts; reducing the amount retained, to perhaps 5 percent or less; and not withholding retainage on smaller contracts. The USDOT DBE program regulations urge recipients to consider these approaches as effective race-neutral measures to increase access.

6. Increase Compliance through Discrimination and Fraud Reporting Tools

Program integrity is a key component of an effective system. The District should consider adding additional information to its website, in a prominent location, about how to file a discrimination complaint and how to report fraud or any questionable activity related to the Program. While there is nothing to suggest that the Forest Preserves suffers from fraud in any systematic way, making the process to file complaints and reports and contact the appropriate investigatory department easily accessible is one race-neutral approach to reducing discrimination. A program hotline might be set up so that information can be provided to District officials in a secure manner that encourages firms and individuals to come forward with credible information.

Further, the District should have the to leverage or initiate penalties that are swift and sure relative to non-compliance with utilization plans).

B. Continue to Implement Narrowly Tailored Race- and Gender-Conscious Measures

The District's program is still relatively new. Utilization of M/WBEs has exceeded availability in some industry sectors and for some groups. However, this is the

result of setting goals, conducting outreach, and enforcing requirements. Evidence beyond the District's results, as described in Appendices B, D and E, strongly suggests these results are the effect of the Program. M/WBEs continue to suffer barriers throughout the Chicago area market; business owners reported instances of bias and discrimination and M/WBEs receive little work without the use of contract goals

Outside of District and other governments' contracts, M/WBEs face large disparities in opportunities for public sector and private sector work. The records and findings in the unsuccessful challenges to the programs of the City of Chicago, IDOT and the Illinois Tollway further support the conclusion that the current effects of past discrimination and ongoing bias, not an economy-wide elimination of a discriminatory market, would be barriers to District work in the absence of affirmative action remedies.

We therefore recommend that the Program be continued, with the following enhancements.

1. Use Current Data to Set M/WBE Contract Goals

As discussed in Appendix A of this Report, the District's constitutional responsibility is to ensure that its Program is narrowly tailored to its geographic and procurement marketplace. The highly detailed availability estimates in the Study can serve as the starting point for contract goal setting. This methodology involves four steps.

1. The District weighs the estimated dollar value of the scopes of the contract as determined during the process of creating the solicitation.
2. It then determines the availability of M/WBEs in those scopes as estimated in the Study.
3. A weighted goal is calculated based upon the scopes and the availability of firms.
4. The District adjusts the resulting percentage based on current market conditions and progress towards the annual goals.

The electronic system should have a goal setting module to use the data from the Study to the greatest possible extent to set contract-specific goals. Further, written procedures spelling out the steps should be drafted.

As currently permitted under the Program Ordinance, we urge the District, where appropriate, to bid some contracts that it determines have significant opportunities for M/WBE participation without goals. These "control contracts"

can illuminate whether certified firms are used or even solicited in the absence of goals, as suggested by the Study data. The development of unremediated markets data will be probative of whether the Program remains needed to level the playing field for minorities and women. As discussed in Appendix A, we note that such evidence was important to our successful defense of the Illinois Department of Transportation's DBE program.

2. Encourage the Use of New M/WBEs by Prime Contractors

Several interview participants mentioned the difficulty of new firms breaking into District work, and prime contractors noted that the race to submit all the compliance paperwork with the bid or proposal, especially the signed, notarized Letters of Intent from certified firms, restricts their ability to utilize new or inexperienced firms.

We therefore suggest the District allow a brief post-submission time to submit some of the compliance paperwork, perhaps close of business the following day. The prime bidder would still have to submit its utilization plan, and would not be permitted to augment participation after bid opening, but this would allow forms like the Letter of Intent to be submitted very shortly after bid opening. This is not to be confused with a "cure period," whereby a prime firm is permitted to change its plan or "cure" its failure to make good faith efforts to meet the goal. This flexibility should help prime contractors to use a broader array of subcontractors, while maintaining Program integrity and the policy that M/WBE compliance is a material element of responsiveness.

3. Provide Program Compliance Training

Interviewees suggested the District hold regular seminars on how to comply with Program requirements. In particular, the waiver policy should be more specific and more widely disseminated. This type of flexibility is critical to a determination that the Program remains narrowly tailored. Moreover, to the extent prime vendors believe waivers are not possible, it may reduce the number of bids or proposals submitted, thereby reducing competition for District work.

4. Review Program Forms and Processes

We suggest a thorough review of Program forms and processes to ensure they remain narrowly tailored and meet best practices for M/WBE programs. Several forms still require notarization and must be provided in multiple hard copies. Fillable PDFs and online submissions will assist everyone to comply with the Program.

C. Develop Performance Measures for Program Success

The District should develop quantitative performance measures for M/WBEs and overall success of the Program to evaluate its effectiveness in reducing the systemic barriers identified by the Study. Possible benchmarks might be:

- The number of bids or proposals and the dollar amount of the awards and the goal shortfall where the bidder submitted good faith efforts to meet the contract goal;
- The number and dollar amount of bids or proposals rejected as non-responsive for failure to make good faith efforts to meet the goal;
- The number, type and dollar amount of M/WBE substitutions during contract performance;
- Increased bidding by certified firms;
- Increased prime contract awards to certified firms;
- Increased “capacity” of certified firms as measured by bonding limits, size of jobs, profitability, etc.; and
- Increased variety in the industries in which M/WBEs are awarded prime contracts and subcontracts.

D. Conduct Regular Program Reviews

The District has adopted a sunset date for the portion of the Ordinance governing construction contracts, and we suggest this approach be extended to the entire Program. Data should be reviewed approximately every five to six years, to evaluate whether race- and gender-based barriers have been reduced such that affirmative efforts are no longer needed, and if such measures are necessary, to ensure that they remain narrowly tailored.