



City of New York Disparity Study

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NYC

 **MGT**
CONSULTING GROUP

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CHAPTER I: Introduction

DISPARITY STUDY

City of New York



I.1 BACKGROUND

The City of New York (City) contracted with MGT Consulting Group (MGT) to conduct a minority- and women-owned business enterprise (M/WBE) Disparity Study. The objective of this study was to conduct a disparity analysis of the utilization of M/WBEs in City contracting, as compared to the availability of M/WBEs in the relevant market.

CHAPTER SECTIONS



- 1.1 Background
- 1.2 Legal Framework
- 1.3 Overview of Study Approach
- 1.4 Report Organization

I.2 LEGAL FRAMEWORK

When states or local governments create affirmative action programs in government procurement, they must do so in a manner that comports with the Equal Protection Clause of the Fourteenth Amendment to the United States Constitution. If a governmental program employs race-based classifications, the program must be narrowly tailored and further a compelling interest. *See Richmond v. J.A. Croson Co.*, 488 U.S. 469, 492, 509 (1989) (“*Croson*”). Local governments have 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.” *Id.* at 492. Additionally, cities that can show they have “essentially become a ‘passive participant’ in a system of racial exclusion practiced by elements of the local construction industry,” are able to “take affirmative steps to dismantle such a system.” *Id.* If a governmental program employs gender-based classifications, in those cases the program must demonstrate an “exceedingly persuasive justification.” *United States v. Virginia*, 518 U.S. 533 (1996).

The foundational case for evaluating M/WBE programs is *Croson*. *Croson* indicated what types of data might be sufficient to show that a program was narrowly tailored to further a compelling government interest. “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.” *Croson*, 488 U.S. at 509. The appropriate remedy for such an inference is likely not a “rigid numerical quota,” *id.* at 508, but could be a program that offers “some form of narrowly tailored racial preference,” *id.* at 509.

Since *Croson*, courts have repeatedly upheld programs that are able to show a disparity between the number of MBEs or WBEs that are willing and able to perform a service, and the number of these firms that are actually hired. *See, e.g., Midwest Fence Corp. v. United States DOT*, 840 F.3d 932, 956 (7th Cir. 2016); *Concrete Works of Colo. v. City & County of Denver*, 321 F.3d 950, 994 (10th Cir. 2003). Disparity studies have been viewed as a valuable tool in determining whether an affirmative action program comports with the requirements of the Fourteenth Amendment. *See H.B. Rowe Co., Inc. v. Tippett*, 615 F.3d 233, 243-44 (4th Cir. 2010) (citing multiple circuits that “have recognized the utility of the disparity index in determining statistical disparities in the utilization of minority- and women-owned businesses”); *Rothe Dev. Corp. v. DOD*, 545 F.3d 1023, 1037 (Fed. Cir. 2008) (noting that disparity studies “can be relevant to the compelling interest analysis”). Therefore, MGT has been retained by the City to conduct this disparity study of M/WBEs in City contracting.

I.3 OVERVIEW OF STUDY APPROACH

MGT's overarching research question, *Is there factual predicate evidence for the continuation of the City's M/WBE program?* Additional research questions follow and serve as the guiding framework for MGT's approach and methodology for this study:

- 1) How does case law inform the research methodology for the City of New York?
- 2) Is there statistical evidence of disparity between the availability and utilization of M/WBE firms?
- 3) Is there anecdotal evidence of specific barriers that M/WBEs faced in working with the City of New York or its prime contractors?
- 4) Do disparities exist in the private sector?

MGT followed a carefully designed work plan that allowed study team members to fully analyze availability and utilization of M/WBEs in the procurement practices of the City for the study period of July 1, 2006 through June 30, 2015.

The Disparity Study analyzed contracting opportunities in applicable procurement categories in order to identify whether a statistical disparity exists, from which the existence of past or present, and public or private discrimination may be inferred in the relevant market area.

The work plan consisted of, but was not limited to, the following major tasks:

- ◆ Establish data parameters and finalize the work plan.
- ◆ Conduct a legal review.
- ◆ Review policies, procedures, and programs.
- ◆ Conduct market area and utilization analyses.
- ◆ Determine the availability of qualified firms.
- ◆ Analyze vendor utilization and availability data for disparity.
- ◆ Collect and analyze anecdotal information.
- ◆ Prepare and present draft and final reports for the study.

I.4 REPORT ORGANIZATION

In addition to this introductory chapter, this 2017 Disparity Study report consists of:

CHAPTER 2 POLICY SUMMARY

Provides a review of the City's M/WBE program's policies and procedures and race and gender-neutral efforts.

CHAPTER 3 MARKET AREA AND UTILIZATION ANALYSES

Presents an analysis to determine the City’s relevant market area and statistical analysis of vendor utilization by the City.

CHAPTER 4 AVAILABILITY AND DISPARITY ANALYSES

Presents an analysis of vendor availability and disparity in the City’s procurement.

CHAPTER 5 ANECDOTAL ANALYSIS

Presents an analysis of anecdotal data collected from the survey of business owners, M/WBE program stakeholders, personal interviews, focus groups, and public meetings.

CHAPTER 6 FINDINGS AND RECOMMENDATIONS

A summary of the findings and recommendations based upon the analyses presented in the report chapters.

APPENDICES Additional analyses, documents used to conduct the study, and back up documentation.

MGT recommends reading the disparity study report in its entirety to understand the basis for the findings and conclusions presented in **Chapter 6, Findings and Recommendations**.

CHAPTER 2: Policy Summary

DISPARITY STUDY

City of New York



2.1 INTRODUCTION

Chapter 2 provides a summary of the remedial procurement efforts undertaken by New York City (the City) regarding participation by minority- and women-owned business enterprises (M/WBEs) in the City's procurement. The review of purchasing policies, practices, and procedures is for the scope of the study period covering July 1, 2006 through June 30, 2015. This task involved a detailed examination of the City's laws, procurement policies and procedures, and M/WBE policies that govern the City's procurement programs.

2.2 METHODOLOGY

This section discusses the steps taken to understand and document the City's M/WBE procurement policies impacting the disparity study period. MGT's review focused on elements of the remedial programs that might affect M/WBE utilization, including the following steps:

- ◆ Collection, review, and summarization of City contracting and purchasing policies in use during the study period. Discussions with City contract managers about the changes that contracting and purchasing policies underwent during the study period and their effects on the remedial programs.
- ◆ Development of questionnaires administered to key City contracting and purchasing staff and officials to determine how existing contracting and purchasing policies have been implemented. Interviews were conducted with City management and staff regarding the application of policies, discretionary use of policies, exceptions to written policies and procedures, and impact of policies on key users. In all, MGT conducted thirty-one interviews with City staff for this purpose.
- ◆ Review of applicable City rules, resolutions, and policies that guide the remedial programs. This included discussions with both City personnel and program participants regarding the operations, policies, and procedures of the remedial programs including any changes to these policies over time.

2.3 HISTORICAL BACKGROUND

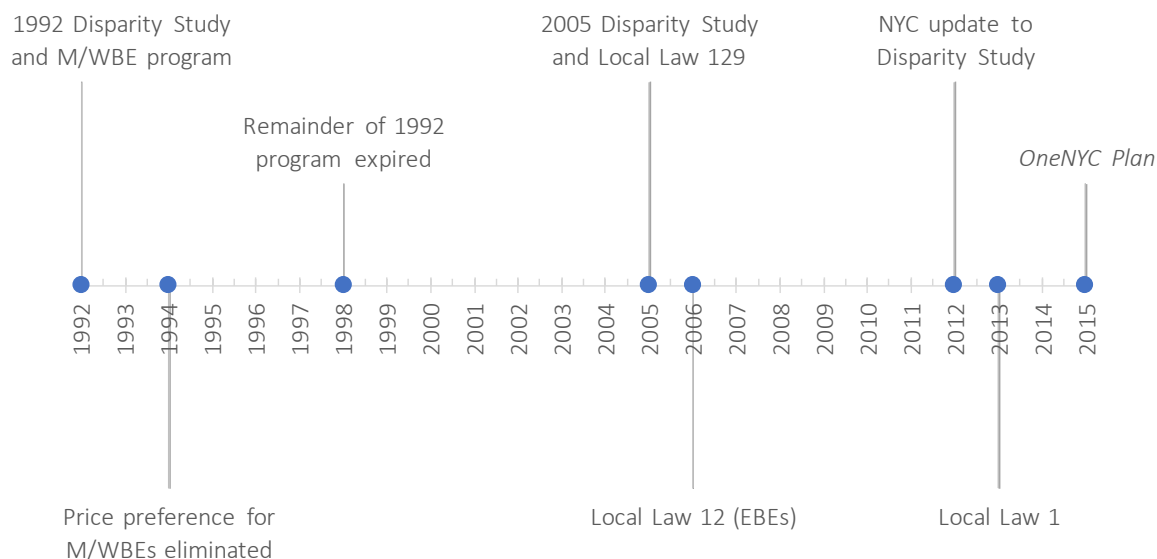
This section provides an overview of the history and timelines associated with City M/WBE programs and rules. **Figure 2-1** provides an overview of the major events that have shaped current M/WBE policy and perceptions regarding the City's efforts to address marketplace disparities.

CHAPTER SECTIONS



- 2.1 Introduction
- 2.2 Methodology
- 2.3 Historical Background
- 2.4 Certification
- 2.5 M/WBE Goals and Incentives
- 2.6 Reporting M/WBE Utilization
- 2.7 M/WBE Program Offices
- 2.8 Other Support for Vendors

FIGURE 2-1
MAJOR LEGISLATIVE AND POLICY DRIVERS OF THE NYC M/WBE PROGRAM



New York City completed its first disparity study in 1992. Based on the study, City rules were adopted to increase M/WBE utilization, including a price preference for M/WBEs,¹ though this was eliminated in 1994 due to a court ruling.² The remainder of the initial M/WBE program then expired in 1998.

Following a second disparity study completed in 2005, the City enacted Local Law 129 (LL 129), which set goals to award a percentage of contracts for amounts between \$5,000 and \$1 million to Minority and Women-owned Business Enterprises (M/WBEs) for Construction, Professional Services, Standard Services and Goods. M/WBE subcontracting goals were set for subcontracts less than \$1 million for Construction and Professional Services. LL 129 was in effect between FY 2007 and FY 2013. In 2006, Local Law 12 was passed, establishing the Emerging Business Enterprise (EBE) program, discussed further in [Section 2.4](#).³

An update to the 2005 disparity study was performed by the City in 2012, leading to the enactment of Local Law 1 (LL 1), which went into effect in FY 2014. The primary revisions in LL 1 include:

- ◆ Updating goals for ethnic and gender categories;
- ◆ Covering all Standard Services, Professional Services and Construction services regardless of dollar value, eliminating the \$1 million cap on contracts subject to M/WBE goals;
- ◆ Eliminating M/WBE goals on Goods contracts in excess of \$100,000;

¹ 11 RCNY §3-01, et seq.

² *Seabury Construction Corp. v. Department of Environmental Protection* (“DEP”), 160 Misc. 2d 87 (Sup. Ct. N.Y. County 1994)

³ New York City Administrative Code § 6-108.1

- ◆ Expanding the formerly nonminority women category to include all women-owned businesses, irrespective of race or ethnicity, in counting participation toward the WBE goal;
- ◆ Establishing goals for women in construction;
- ◆ Simplifying goal setting by eliminating the Target Subcontracting Percentage (TSP)⁴ and setting M/WBE goals on the entire contract rather than a portion of the contract;
- ◆ Allowing M/WBE primes to count their own participation towards project participation goals; and
- ◆ Increasing accountability, including performance improvement plans for agencies that fail to meet their M/WBE goals and quarterly meetings of agency M/WBE officers with the M/WBE Director, appointed by the Mayor.

In April 2015, Mayor Bill de Blasio introduced the OneNYC plan, which contained an M/WBE component.⁵ The OneNYC plan has three major initiatives for M/WBE inclusion:

1. Increase the number of certified M/WBEs;
2. Increase contract awards to M/WBEs; and
3. Expand legal tools to induce greater usage of M/WBEs.

Additional approaches for expanding M/WBE utilization outlined under the OneNYC plan include expanding the use of the “best value” technique as a basis for procurement; increasing capacity building services; modifying project labor agreements to be more M/WBE friendly; implementing programs to increase M/WBE utilization on City development projects; and seeking state legislative changes designed to increase M/WBE utilization for all City agencies. The goal is a minimum of \$16 billion in awards to certified M/WBEs over the ten years following its announcement.

2.4 CERTIFICATION

Included in this section is a summary of the types of certifications (and associated requirements) offered to vendors by the City, including **race and gender-neutral certifications**.

2.4.1 M/WBE CERTIFICATION

The **Minority and Women-owned Business Enterprises (M/WBE)** certification is the City’s race and gender-conscious certification. This certification program is defined in the City Charter as:

...business enterprises authorized to do business in this state, including sole proprietorships, partnerships and corporations, in which (i) at least fifty-one percent of the ownership interest is held by United States citizens or permanent resident aliens who

⁴ The TSP was the percentage of a contract in which an agency anticipated a typical prime contractor would award on a subcontract below \$1 million. M/WBE goals were then set on the TSP.

⁵ One New York: The Plan for a Strong and Just City, page 259. For a further description, see One NYC Minority and Women-Owned Business Enterprise Bulletin, FY 2015, which is updated annually.

*are either minority group members or women, (ii) the ownership interest of such persons is real, substantial and continuing, and (iii) such persons have and exercise the authority to control independently the day to day business decisions of the enterprise.*⁶

For purposes of the M/WBE program, the City defines “minority group members” to include:

United States citizen or permanent resident alien who is, and can demonstrate membership in, one of the following groups:

- (1) Black persons having origins in any of the Black African racial groups;*
- (2) Hispanic persons of Mexican, Puerto Rican, Dominican, Cuban, Central or South American descent of either Indian or Hispanic origin, regardless of race⁷; or*
- (3) Asian and Pacific Islander persons having origins in any of the Far East countries, South East Asia, the Indian Subcontinent or the Pacific Islands.*

The City Administrative Code also provides that the DSBS’ Commissioner is authorized to add additional groups to the definition of minority group members “upon a finding that there is statistically significant disparity between the availability of firms owned by individuals in such a group and the utilization of such firms in City procurement.”⁸

City Rules define “business enterprise” as any entity, including a sole proprietorship, partnership or corporation which is authorized to and engages in lawful business transactions in accordance with the laws of New York State.”⁹ Nonprofits are not eligible for M/WBE certification.¹⁰

A certified M/WBE must have a “real and substantial presence” in the geographic market of New York City.”¹¹ The current geographic market for M/WBE certification includes the five boroughs of New York City and the following counties: Nassau, Putnam, Rockland, Suffolk, and Westchester counties in New York, and Bergen, Hudson, and Passaic counties in New Jersey.¹²

The City defines a “real and substantial presence” for M/WBE certification purposes as:

- (1) the business enterprise’s principal office or place of business or headquarters is located within the City; or*
- (2) the business enterprise maintains full-time employees in one or more of the business enterprise’s offices within the City to conduct or solicit business in the City the majority of their working time;*
or

⁶ New York City Charter § 1304(e)(6)(b).

⁷ 66 RCNY § 11-21. From this definition, it follows that “Portuguese and Spanish ethnicities are not considered Hispanic for M/WBE certification with the City.” City certification application, page 4
www.nyc.gov/html/sbs/nycbiz/downloads/pdf/summary/certification/MWBE_Application.pdf.

⁸ New York City Administrative Code § 6-129(c)(26).

⁹ 66 RCNY § 11-21.

¹⁰ City certification application, page 3.

¹¹ 66 RCNY § 11-22(a).

¹² 66 RCNY § 11-21.

- (3) *the business enterprise's principal office or place of business or headquarters is located within the geographic market of the City, and*
 - (i) *has transacted business more than once in the City within the last three (3) years, or*
 - (ii) *has sought to transact business more than once in the City within the last three (3) years; or*
- (4) *twenty-five percent (25%) of the business enterprise's annual gross receipts for the last three (3) years were derived from transacting business in the City; or*
- (5) *the business enterprise's principal office or place of business or headquarters is not located within the geographic market of the City but the business enterprise has demonstrated two or more of the following indicia of a real and substantial presence in the market for the City of New York:*
 - (i) *the business enterprise has maintained a bank account or engaged in other banking transactions in the City;*
 - (ii) *the business enterprise, or at least one of its owners, possesses a license issued by an agency of the City to do business in the City;*
 - (iii) *the business enterprise has transacted or sought to transact business in or with the City more than once in the past three years.*¹³

Applicants and certified firms are subject to audit at any time to assess eligibility for the program.¹⁴ DSBS has the power to revoke the certification for firms that have violated City certification rules, or are believed to be participating in a contract in a manner that does not serve a commercially useful function.¹⁵

2.4.2 EBE CERTIFICATION

Local Law 12 of 2006 enacted the certification of **Emerging Business Enterprises (EBEs)**. The City Charter defines these as enterprises owned or controlled by individuals who pass a two-prong test for characterization as “socially and economically disadvantaged.”¹⁶ Evaluation and certifications are based on individual, specific criteria used to substantiate disadvantage. The program, therefore, precludes certification of entities based purely on race, national origin or gender, and is a race and gender-neutral program. The program’s requirements also preclude certification of individuals with a net worth of \$1 million or greater. Otherwise, City EBE certification rules use the same definitions of “business enterprise,” “real and substantial presence,” and geographic limits as the City M/WBE certification.¹⁷

¹³ 66 RCNY § 11-22(a).

¹⁴ 66 RCNY § 11-23(h).

¹⁵ New York City Administrative Code § 6-129(o)(6).

¹⁶ New York City Charter § 1304(e)(6)(c).

¹⁷ 66 RCNY § 11-82, 3.

Limited participation of vendors in the EBE program has made it difficult for City agencies to set goals on contracts¹⁸. However, the City continues to engage in outreach to potentially eligible firms, in concert with its outreach to potential M/WBE vendors and others, to identify additional firms for inclusion in this category. An aspiration remains to set contract goals if and when a sufficient population of EBE vendors can be achieved.

2.4.3 LBE CERTIFICATION

Another type of race and gender-neutral certification offered by the City is the **Locally Based Enterprise (LBE)** program. As set forth in Administrative Code §6-108.1, the LBE program is designed to promote the growth of small construction firms through greater access to contracting opportunities with the City. LBE Certification is available to construction and construction-related firms, regardless of gender or ethnicity of the owner, that do business in economically depressed areas of the City or employ economically disadvantaged persons. To be eligible for LBE certification, a business must satisfy the following requirements:

- ◆ *In the building or heavy construction business and:*
 - *has received gross receipts in the last three or fewer tax years averaging \$2 million or less on an annual basis; or*
 - *has been in business for less than one tax year and has received gross receipts equal to or less than \$2 million; and*
- ◆ *In the tax year preceding the date of application has:*
 - *earned at least 25 percent of its gross receipts from work performed on construction projects located in economic development areas; or*
 - *employed a work force of which at least 25 percent were economically disadvantaged persons.*¹⁹

Although the program generally requires agencies to utilize LBEs as a prime or subcontractor on specific construction contracts, the universe of contracts subject to the LBE program has decreased²⁰. This is largely due to the goals attached to this program being superseded by Federal Disadvantaged Business Enterprise (DBE) programs, parallel state goals, and the City's own M/WBE program and goals. Nonetheless the City works diligently to ensure any projects where LBE goals can be leveraged are treated appropriately to ensure the ongoing viability of this program and inclusion of vendors meeting its standards.

¹⁸ City of New York, Minority and Women-Owned Business Enterprise (M/WBE) Program, Annual Report for Fiscal Year 2015, pages 4-5.

¹⁹ 66 RCNY § 11-02 and 03.

²⁰ City of New York, Minority and Women-Owned Business Enterprise (M/WBE) Program, Annual Report for Fiscal Year 2015, page 5.

2.4.4 GRADUATION

The City defines graduate M/WBE or EBE as:

MBE, WBE or EBE which shall have been awarded prime contracts by one or more agencies within the past three years where the total City funding from the expense and capital budgets for such contracts was equal to or greater than fifty million dollars and whose size has exceeded the size standards established for its industry by the United States Small Business Administration for three years.²¹

LBE graduates are businesses that have been certified as LBEs and are not qualified for renewal of such certification if, during the three-year period, their gross receipts averaged more than the amount established pursuant to the LBE program certification requirements.²²

2.4.5 M/WBE CERTIFICATION PARTNERSHIPS

There is no unified M/WBE certification in the New York City area such as exists for the Federal Disadvantaged Business Enterprise (DBE) program. However, the City partners with other entities in the area to facilitate M/WBE certification across agencies and organizations. The City current certification partners are:

- ◆ New York State Department of Economic Development.
- ◆ New York City School Construction Authority.
- ◆ The Port Authority of New York and New Jersey.
- ◆ Women President’s Educational Organization.
- ◆ New York & New Jersey Minority Supplier Development Council, Inc.²³

2.4.6 CERTIFICATION DIRECTORY

The City maintains a searchable online directory of certified firms.²⁴ The City M/WBE directory search elements include minority and gender group, EBE and LBE status, company name, commodity codes, location, aggregate bonding limit, and contract experience. The number of certified M/WBEs grew from 1,036 to 4,115 during the study period (July 1, 2006 to June 30, 2015).²⁵

²¹ New York City Administrative Code § 6-129(c)(20). The current U.S. SBA small business size standards are located here: https://www.sba.gov/sites/default/files/files/Size_Standards_Table.pdf.

²² New York City Administrative Code § 6-108.1

²³ www1.nyc.gov/nycbusiness/description/minority-and-womenowned-business-enterprise-certification-program-mwbe/about.

²⁴ <http://mtprawvwsbswtp1-1.nyc.gov/Search.aspx>.

²⁵ City of New York, Minority- and Women-Owned Business Enterprise Program, Preliminary Report, FY 2009 Compliance Information, page 4; City of New York, Minority and Women-Owned Business Enterprise (M/WBE) Program, Annual Report for Fiscal Year 2015, page 4.

2.5 M/WBE GOALS AND INCENTIVES

This section describes current and historic goals established for M/WBEs as well as agency plans and policies that support their implementation.

2.5.1 M/WBE GOALS

The City's M/WBE goals in **Table 2-1** took effect in FY 2007, enacted by LL 129 of 2005.

TABLE 2-1
NEW YORK CITY M/WBE GOALS
FY 2005-FY 2007

	Construction	Professional Services	Standard Services	Goods
Prime Contracting Goals				
Black Americans	12.63%	9.0%	9.23%	7.47%
Hispanic Americans	9.06%	5.0%	5.14%	4.99%
Asian Americans	No Goal	No Goal	No Goal	5.19%
Women	No Goal	16.5%	10.45%	17.87%
Total	21.69%	30.5%	24.82%	35.52%
Subcontracting Goals				
Black Americans	12.63%	9.0%	NA	NA
Hispanic Americans	9.06%	5.0%	NA	NA
Asian Americans	9.47%	No Goal	NA	NA
Women	No Goal	16.5%	NA	NA
Total	31.16%	30.5%	NA	NA

Source: LL 129.

DSBS has the power to revise City participation goals in consultation with MOCS.²⁶ The current M/WBE goals are based on the availability and disparity results in the 2012 City's updated study and enacted by LL 1. The current City M/WBE goals set forth are as follows in **Table 2-2**.

TABLE 2-2
NEW YORK CITY
M/WBE AND EBE GOALS
FY 2016

	Construction	Professional Services	Standard Services	Goods
Black Americans	8%	12%	12%	7%
Hispanic Americans	4%	8%	6%	5%
Asian Americans	8%	No Goal	3%	8%
Women	18%	17%	10%	25%
Emerging Business Enterprise	6%	6%	6%	6%

Source: Rules of the City of New York.

²⁶ New York City Administrative Code § 6-129(d)(4)(a).

2.5.2 AGENCY M/WBE UTILIZATION PLANS

Agencies with procurements in excess of \$5 million during the preceding fiscal year are required to submit annual agency utilization plans.²⁷ These utilization plans must include agency M/WBE/EBE participation goals, an explanation or justification for all agency goals, a list of all agency personnel responsible for implementation of the plan, and proposed methods and activities for achieving the agency goals. The City Administrative Code specifically provides that the Citywide M/WBE goals should not be “summarily adopted” as goals for agency annual M/WBE utilization plans, or for individual procurements.²⁸ The DSBS’ Commissioner approves the agency utilization plans.²⁹ Agencies that fail to achieve their goals are required to submit performance improvement plans.³⁰

2.5.3 M/WBE PROGRAM INCENTIVES

The City M/WBE program is largely a subcontractor goals program and does not include prime contractor bid preferences or set-asides.³¹ There have also been no bid preference and set-asides for EBEs.³² There is one City provision selecting an M/WBE first in the event of low tie bids.³³ The City procurement rules also provide that micropurchases (up to and including \$20,000) “are distributed appropriately among responsible vendors, including M/WBE vendors.”³⁴ No competition is required for procurements \$20,000 or less. The City also has an M/WBE participation policy for small purchase procurements (up to and including \$100,000). Agencies are required to solicit at least five M/WBE vendors in addition to five vendors randomly selected from the City’s bidders list. In addition, the City Administrative Code requires the review of contracts in excess of \$10 million for opportunities to divide the contract up into smaller contracts to increase competition for M/WBEs.³⁵

²⁷ New York City Administrative Code § 6-129(g)(1). The \$5 million threshold for submitting agency utilization plans does not include procurement that is exempt from application of the M/WBE requirements.

²⁸ New York City Administrative Code § 6-129(d)(2)(b), 6-129(d)(3).

²⁹ New York City Administrative Code § 6-129(d)(2)(b).

³⁰ New York City Administrative Code § 6-129(l)(3),

³¹ City M/WBE bid preferences set in the 1990s were declared invalid in *Seabury Construction v. Department of Environmental Protection*, 607 NYS.2d 1017 (1994) as the preferences violated Section 103 of the New York State Municipal Law, although the ruling came right after the price preference had been eliminated by executive order. The City’s former M/WBE program established a price preference allowing award to an MBE or WBE that was not the low bidder if its bid was within a certain percentage of the low bid. Exercise of the price preference relied on the “bypass power” in Charter §313, which provides that the Mayor may determine that it is in the “best interest of the City that a bid other than that of the lowest responsible bidder shall be accepted.” The City defended use of this power as being grandfathered under GML §103, which allows exceptions to competitive bidding requirements for local laws “adopted prior to September first, nineteen hundred fifty-three.” *Matter of Seabury Construction Corp. v. Dep’t of Environmental Protection*, 160 Misc. 2d 87 (Sup. Ct. NY Co. 1994), invalidated the price preference in the City’s M/WBE program, holding that the bypass power was no longer protected by the grandfathering clause because of changes made to the Charter in 1989. In a subsequent case not involving M/WBE provisions, the Court of Appeals reached the same conclusion that the bypass power is no longer preserved by the grandfathering clause of §103. *Matter of Diamond Asphalt Corp. v. Sander*, 92 N.Y. 2d 244, 265-266 (1998).

³² As noted above there are few certified EBEs and City staff reported that there have been few EBE subcontractor goals set on City projects.

³³ New York City Procurement Policy Board Rules, § 3-02(p)(2).

³⁴ New York City Procurement Policy Board Rules § 3-08(c)(1)(ii).

³⁵ New York City Administrative Code § 6-129(h)(2)(e).

2.5.4 WAIVERS AND MODIFICATIONS OF M/WBE GOALS

MOCS reviews recommendations from agencies to grant waivers of M/WBE goals during the solicitation of contracts that have M/WBE goals. Waiver provisions address the flexibility and narrow tailoring requirements of an M/WBE Program. A full waiver means the firm will have no subcontracts on the project or subcontracts in areas where there are no M/WBEs available, and a partial waiver means the firm will have a lower amount of M/WBE subcontracts on the project than initially required by the agency. The City's conditions for a waiver include the following:

...whether the bidder or proposer has the capacity and the bona fide intention to perform the contract without any subcontracting, or to perform the contract without awarding the amount of subcontracts represented by the participation goals. In making such determination, the agency may consider whether the utilization plan is consistent with past subcontracting practices of the bidder or proposer, whether the bidder or proposer has made efforts to form a joint venture with a certified firm, and whether the bidder or proposer has made good faith efforts to identify portions of the contract that it intends to subcontract.³⁶

Data on partial and full waivers from FY 2007 to FY 2015 are presented in **Table 2-3** below. From FY 2007 through FY 2015 there were an average of 152 waiver requests per year and 22.3 percent of waiver requests were denied. Generally, the bulk of waivers have gone to firms that were not awarded a contract. For example, in FY 2015 only 22 of the 152 approved waiver requests (14.4 percent) went to successful awardees.³⁷ In addition, many waivers were awarded to the same firms.

TABLE 2-3
NEW YORK CITY MAYORAL AGENCIES
FULL WAIVERS AND PARTIAL WAIVERS OF M/WBE PARTICIPATION GOALS
FY 2007 THROUGH FY 2015

Fiscal Year	Requests for Waivers	Waivers Requests Denied	Percent of Waiver Requests Denied	Full Waivers Approved	Percent of Waivers Approved as Full Waivers	Partial Waivers Approved	Percent of Waivers Approved As Partial Waivers
FY 2007	45	14	31.1%	6	13.3%	25	55.6%
FY 2008	116	38	32.8%	33	28.4%	45	38.8%
FY 2009	160	28	17.5%	35	21.9%	97	60.6%
FY 2010	157	19	12.1%	61	38.9%	77	49.0%
FY 2011	136	19	14.0%	48	35.3%	69	50.7%
FY 2012	219	71	32.4%	34	15.5%	114	52.1%
FY 2013	150	14	9.3%	29	19.3%	107	71.3%
FY 2014	185	34	18.4%	83	44.9%	68	36.8%
FY 2015	179	27	15.1%	74	41.3%	78	43.6%
Total FY 2007-15	1,370	264	22.3%	403	34.0%	680	57.3%

Source: MOCS, Annual Procurement Indicators, FY 2007 through FY 2015.

Note: the total number of waiver requests is the sum of denials, and full and partial waivers.

³⁶ New York City Administrative Code § 6-129(i)(11)(c).

³⁷ New York City MOCS, Annual Procurement Indicators, FY 2015, page 19.

Alternately, a modification to an M/WBE goal references the circumstance where the goal is lowered after the contract award. A modification of a contract is permitted only where a contractor:

- ♦ *...has established, with appropriate documentary and other evidence, that it made all reasonable, good faith efforts to meet the goals set by the agency for the contract.*³⁸

Consideration of “all reasonable, good faith efforts” to meet M/WBE goals entails documentation of how the opportunity may have been re-advertised via written notice, meetings, publications, or other media; whether the contractor attempted to re-configure and substitute work to maintain goals; and otherwise made substantive (documented) efforts to communicate to the City regarding any challenges prompting the need for modification and thereafter work with the City to maximize compliance. From FY 2007 to FY 2015 MOCS approved ten modifications of contract goals in total.³⁹

2.5.5 APPLICABILITY OF CITY M/WBE PROGRAM

The City M/WBE program and its requirements do not apply to:

- ♦ Contracts subject to federal or state funding requirements which preclude application of the City M/WBE program;
- ♦ Contracts subject to federal or state law M/WBE, DBE, and/or EBE participation requirements;
- ♦ Contracts between agencies;
- ♦ Procurements made through federal, state or other governmental agencies;
- ♦ Emergency procurements;
- ♦ Sole source procurements;
- ♦ Human services contracts; and
- ♦ Contracts awarded to nonprofits.⁴⁰

City agencies also do not set M/WBE goals where no subcontracting is anticipated.

2.6 REPORTING M/WBE UTILIZATION

City policy requires the detailed reporting of M/WBE utilization, including information on: M/WBE prime and subcontract awards, by industry classification, contract size, M/WBE, EBE, noncertified, minority and gender status; qualified joint ventures; requests for waivers and modifications; complaints; audit; and lists of certified and recertified firms.⁴¹ The City has produced comprehensive agency procurement

³⁸ New York City Administrative Code § 6-129 (i)(12)(a).

³⁹ MOCS, Annual Procurement Indicators, FY 2007 through FY 2015.

⁴⁰ New York City Administrative Code § 6-129(q); 66 RCNY § 11-74.

⁴¹ New York City Administrative Code § 6-129(l); 66 RCNY § 11-69. No credit towards goal achievement is given for M/WBEs that do not perform a “commercially useful function.” 66 RCNY § 11-67(1)(v).

reports that include M/WBE and EBE utilization and certification data as well as M/WBE reports to the City Council over a number of years.

The OneNYC plan requires all City agencies, boards, commissions, corporations, and other municipal public bodies to report their M/WBE utilization to MOCS. The M/WBE reporting for OneNYC also includes awards to City-certified firms from mayoral agencies used under projects not subject to LL 1, such as federally funded projects subject to federal DBE requirements. Thus, OneNYC encompasses all awards to City-certified M/WBEs for all City agencies.⁴²

2.7 M/WBE PROGRAM OFFICES

Three oversight agencies are primarily responsible for the City M/WBE program. The Mayor’s M/WBE Director leads policy changes for the City M/WBE program which is then jointly administered by DSBS and MOCS.

MOCS and DSBS assist City agencies with compliance for the M/WBE program and jointly produce reports as per the New York City Administrative Code § 6-129.⁴³ MOCS determines if agencies need to unbundle larger contracts into smaller contracts, and approves of and reports on full waivers, partial waivers and modifications.⁴⁴

The Division of Economic and Financial Opportunity (“Division”) within DSBS manages and implements M/WBE program components. The Division’s responsibilities as laid out in the City Charter include:

- ◆ To direct and assist agencies in their efforts to increase participation by M/WBEs and EBEs as contractors and subcontractors in City procurement;
- ◆ To develop standardized forms and reporting documents;
- ◆ To conduct, coordinate, and facilitate technical assistance and educational programs;
- ◆ To periodically review the compliance of City agencies with the M/WBE/EBE policy;
- ◆ To annually report to the Mayor and the City Council;
- ◆ To establish and operate a centralized program for the certification of M/WBEs and EBEs;
- ◆ To conduct site visits at business enterprises seeking certification;
- ◆ To audit such business enterprises and periodically review their eligibility for certification;
- ◆ To direct and assist City agencies in their efforts to increase participation by M/WBEs and EBEs in any City-operated financial, technical, and management assistance program;
- ◆ To assist M/WBEs and EBEs in becoming prequalified;

⁴² One NYC Minority and Women-Owned Business Enterprise Bulletin, FY 2015, page 3.

⁴³ New York City Administrative Code § 6-129(l); 66 RCNY § 11-69.

⁴⁴ New York City Administrative Code §§ 6-129(h)(2)(e), 6-129(i)(11), 6-129(i)(12).

- ◆ To prepare, periodically update, and post on the website of the Division a directory of certified businesses;
- ◆ To develop a clearinghouse of information on programs and services available;
- ◆ To coordinate with City and state entities that maintain databases of M/WBEs and EBEs and work to enhance City availability of data and directories; and
- ◆ To provide such assistance to M/WBEs and EBEs as is needed to ensure that such businesses benefit from City technical, managerial, and financial assistance, and other business development programs.⁴⁵

Additional Division responsibilities spelled out in the City Administrative Code include:

- ◆ Assist agencies and contractors in determining the availability of M/WBEs and EBEs to participate in their contracts as prime contractors and/or subcontractors, and in identifying appropriate contract opportunities for M/WBEs and EBEs;
- ◆ Develop and maintain relationships with organizations representing contractors, including M/WBEs and EBEs;
- ◆ Keep agency M/WBE officers informed of conferences, contractor fairs, and other services;
- ◆ Audit annually, in consultation with MOCS, at least 5 percent of all open contracts for which contractor utilization plans have been established and 5 percent of all contracts awarded to M/WBEs and EBEs to assess program compliance;
- ◆ Assist agencies in identifying and seeking ways to reduce or eliminate practices such as bonding requirements or delays in payment by prime contractors;
- ◆ Encourage prime contractors to enter joint venture agreements with M/WBEs and EBEs; and
- ◆ Determine whether a firm qualifies as a graduate M/WBE or EBE.⁴⁶

The City Administrative Code also provides that each City agency must designate an agency M/WBE officer whose duties include creating the agency's utilization plans, acting as the agency's liaison with DSBS and M/WBE organizations, referring M/WBEs and EBEs to technical assistance services, reviewing requests for waivers and/or modifications, assisting DSBS and MOCS with creating the M/WBE directory, monitoring compliance with contractors and agency utilization plans and providing necessary information for MOCS reports.⁴⁷ The Mayor's M/WBE Director coordinates oversight meetings with M/WBE officers.

⁴⁵ New York City Charter, § 1304(e).

⁴⁶ New York City Administrative Code § 6-129(e).

⁴⁷ New York City Administrative Code § 6-129(f).

2.8 OTHER SUPPORT FOR VENDORS

This section describes additional avenues of support offered by the City during the study period, to encourage broad and equitable participation among prospective vendors in the City's market area. The City offers a variety of events and programs to enhance access and equip vendors with the tools they need to have for successful engagement with the City. Although these programs have targeted M/WBE firms, some of them are also open to non-M/WBEs.

Support is provided to firms through several methods of delivery including regularly scheduled workshops and webinars, one-on-one assistance, cohort programs, events and networking opportunities, as well as direct assistance (e.g. financing). Various types of services include:

- ◆ **Selling to Government Assistance** (workshops and one-on-one assistance to help vendors navigate the City, state, and federal procurement systems);
- ◆ **Certification Assistance** (workshops and one-on-one assistance with certification process and application requirements for the M/WBE, EBE and LBE certifications);
- ◆ **Technical Assistance** (workshops and one-on-one assistance on submitting bids and proposals);
- ◆ **Capacity Building** (cohort-based programs focused on increasing vendors' capacity);
- ◆ **Financial Assistance** (working capital loans for firms awarded City contracts);
- ◆ **Access to Private Sector Contracting** (workshops and networking opportunities to help businesses break into the corporate supply chain);
- ◆ **Partnerships** (assistance to firms interested in teaming / joint-venture arrangements, through workshops and networking opportunities);
- ◆ **Events** (City-sponsored and in collaboration with business community organizations and government partners).

**CHAPTER 3: Market Area and Utilization
Analyses**

DISPARITY STUDY

City of New York



3.1 INTRODUCTION

This chapter presents the results of MGT’s market area and utilization analyses of firms used on New York City (“NYC” or “City”) procurements during July 1, 2006 and June 30, 2015. The specific procurement categories analyzed were Architecture & Engineering, Construction, Professional Services, Standardized Services, and Goods or Commodities.

The market area is essential to establishing the universe of available vendors and awards that will be considered in identification of any disparate treatment of assorted classifications of firms. Utilization data are central to defining this market area and thus are first presented as a means of identifying the market area for consideration, and then are examined within that market area to assess assorted levels of contracting activity as the first step in the quantitative determination of disparity.

CHAPTER SECTIONS



- 3.1 Introduction
- 3.2 Data Collection and Management
- 3.3 Market Area Analysis
- 3.4 Utilization Analysis

3.2 DATA COLLECTION AND MANAGEMENT

MGT staff compiled and reconciled electronic data provided by the City to develop a master set of prime contract and subcontract data into a Master Utilization Database to support the needs of the study.

3.2.1 STUDY PERIOD

MGT analyzed procurements awarded between July 1, 2006 and June 30, 2015.

3.2.2 PROCUREMENT CATEGORIES AND EXCLUSIONS

MGT analyzed the procurement categories competitively bid by the City, encompassing five sectors: Architecture & Engineering, Construction, Professional Services, Standardized Services, and Goods or Commodities. These procurement categories are defined as:

- ◆ Architecture & Engineering: A class of services specifically related to the preparation of plans and specifications for Construction projects.
- ◆ Construction: Services provided for the construction, renovation, rehabilitation, repair, alteration, improvement, demolition, and excavation of physical structures, excluding the performance of routine maintenance.
- ◆ Professional Services: Services that require the provider to possess specialized skills, including the holding of advanced degrees and exercise of independent judgement.
- ◆ Standardized Services: Services that do not typically require a provider to have experience in a specialized field or hold an advanced degree.

- ◆ Goods or Commodities: This category includes all purchases of physical items, including but not limited to equipment and materials, excluding land or a permanent interest in land.

The following types of transactions were excluded from the analysis:

- ◆ Transactions outside of the study period.
- ◆ Transactions associated with state or federal goals.
- ◆ Transactions associated with non-mayoral agencies/departments.
- ◆ Transactions associated with non-procurement activities, for example:
 - Administrative items such as utility payments, leases for real estate, or insurance.
 - Salary and fringe benefits, training, parking, or conference fees.
- ◆ Transactions associated with nonprofit organizations and governmental agencies.

3.3 MARKET AREA ANALYSIS

As prescribed by *Croson* and its progeny, a disparity study requires definition of a market area to ensure that a relevant pool of vendors is considered in assessments regarding which firms have been utilized versus which were available. If these boundaries are stretched too far, the universe of vendors becomes diluted with firms with no interest or history in working with the agency, and thus their demographics and experiences have little relevance to actual contracting activity or policy. On the other hand, a boundary set too narrowly risks the opposite circumstance of excluding a high proportion of firms who have contracted with, or bid for work with, the agency, and thus may also skew the prospective analyses of disparity.

3.3.1 METHODOLOGY

In the determination of a relevant market area, MGT abides by a 75 percent rule of agency spending with deference to historic programmatic considerations to prescribe an appropriate geographic boundary. Although there are no specific disparity study cases on point that discuss the merits of abiding by the 75 percent rule, the use of 75 percent as a measure of determining the relevant market area has been accepted by antitrust cases in the 2nd circuit, and serve as persuasive precedent. One example is *James C. Jones v. New York County Human Resources Administration (James C. Jones)*⁴⁸, which affirms findings and policies based on market area definitions encompassing approximately 75 percent of agency spending. In *James C. Jones*, the court accepted less than 100 percent of data when it was reasonable to assume that the missing data would not significantly change the results of the analysis.

⁴⁸ MGT uses the “75 percent rule” to determine the relevant market area. This rule is generally accepted in antitrust cases. In another relevant case, *James C. Jones v. New York County Human Resources Administration*, 528 F.2d 696 (F.2d Cir. 1976), the court accepted less than 100 percent of the data when it was reasonable to assume that the missing data would not significantly change the results of the analysis.

To establish the appropriate geographic boundaries for the study’s analyses, an “overall” market area was first established to identify the full geographic extent of City awards, and successively the “relevant” market area was isolated in accord with the 75 percent standard, eliminating much of the extraneous geography. These market areas are defined by geographic units such as boroughs, counties, and states, based on the following considerations: 1) the courts have accepted the use of standard geographic units in conducting equal employment opportunity and disparity studies; 2) geographic units are externally determined, so there are no subjective determinations; and 3) U.S. Census and other federal agencies routinely collect data by geographic unit. It also should be noted that the market area analysis considers only prime contracting awards as these are the entities that the City directly contracts with. The following presents the methodology used to determine the overall market area and relevant market area.

- ◆ **Overall Market Area.** To determine the full extent of the market area in which the City utilized firms, MGT staff determined geographic locations of utilized vendors by their county jurisdictions. The overall market area presents the total dollars awarded for each procurement category included within the scope of the study. The overall market area results by procurement category are presented in **Section 3.3.2** of this chapter.
- ◆ **Relevant Market Area.** Once the overall market was established, the relevant market area was determined by examining several more narrowly defined regions (focusing on areas with some known jurisdictional identity, such as the collection of City boroughs, the current default certification area, and the local Metropolitan Statistical Area) to isolate a more specific region that would still meet the 75 percent standard. Based on the results of the market area analysis conducted for each procurement category, the relevant market area was defined as those 13 counties within the City’s Minority and Women-owned Business Enterprise (M/WBE) current default certification area.

NYC Relevant Market Area
Bronx County, NY
Kings County, NY
New York County, NY
Richmond County, NY
Queens County, NY
Nassau County, NY
Putnam County, NY
Rockland County, NY
Suffolk County, NY
Westchester County, NY
Bergen County, NJ
Hudson County, NJ
Passaic County, NJ

The dollars awarded were summarized by county according to the location of each firm and by the services they provided to the City: Architecture & Engineering, Construction, Professional Services, Standardized Services, and Goods or Commodities. Corresponding market area analyses showing the dollars awarded by county within each procurement category are presented in **Appendix A, Table A-2** through **Table A-5**.

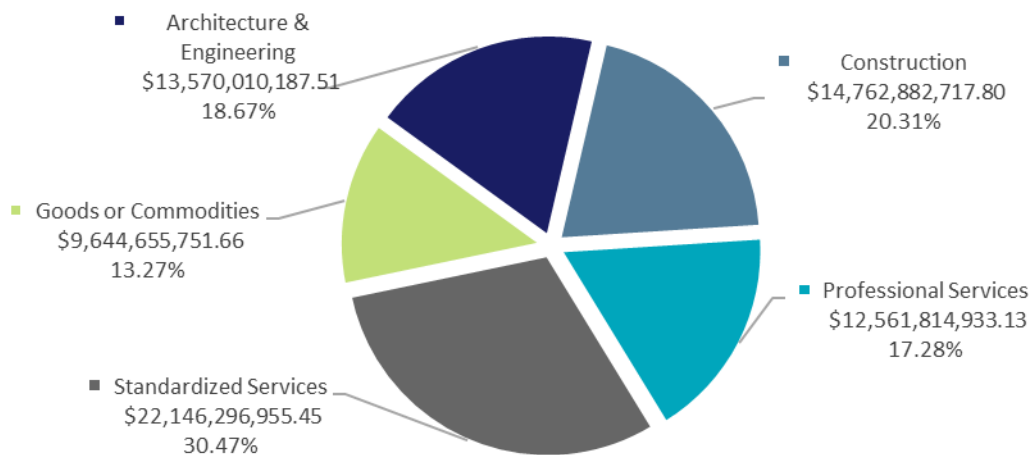
3.3.2 ANALYSIS AND IDENTIFICATION OF RELEVANT MARKET AREA

As described in the preceding section, an overall market area was first established to account for all City awards, after which more specific regions were analyzed to arrive at a relevant market area to support

the goals of the study. Detailed information supporting this market area analysis is presented in **Appendix A** to this report.

Figure 3-1 shows \$72.69 billion were awarded to firms located within the overall market area⁴⁹ between July 1, 2006 and June 30, 2015.

FIGURE 3-1
SUMMARY OF DOLLARS, TOTAL CONTRACTS (AWARDED) BY PROCUREMENT CATEGORY, OVERALL MARKET AREA



Narrowing the geographic scope, **Table 3-1** shows that firms located within the relevant market area accounted for 74.82 percent of awards across all procurement categories. When broken down by procurement categories, firms located within the 13-county relevant market area accounted for:

- ♦ 89.59 percent of the dollars awarded in Architecture & Engineering;
- ♦ 77.86 percent of the dollars awarded in Construction;
- ♦ 74.89 percent of the dollars awarded in Professional Services;
- ♦ 72.34 percent of the dollars awarded in Standardized Services; and
- ♦ 54.99 percent of the dollars awarded in Goods or Commodities.

⁴⁹ The overall market area represents the total area within which the City expended dollars or utilized firms, thus the overall market shows the awards with all firms (located inside and outside the relevant market area) as described in **Section 3.3.1**.

TABLE 3-1
MARKET AREA ANALYSIS, CONTRACTS DISTRIBUTION OF DOLLARS BY BUSINESS
CATEGORY, CITY OF NEW YORK 13-COUNTY MARKET AREA

ARCHITECTURE & ENGINEERING	Amount	Percent
<i>Inside NYC 13-County Market Area</i>	\$ 12,157,221,950.62	89.59%
Outside NYC 13-County Market Area	\$ 1,412,788,236.89	10.41%
ARCHITECTURE & ENGINEERING, TOTAL	\$ 13,570,010,187.51	100.00%
CONSTRUCTION	Amount	Percent
<i>Inside NYC 13-County Market Area</i>	\$ 11,494,033,363.11	77.86%
Outside NYC 13-County Market Area	\$ 3,268,849,354.69	22.14%
CONSTRUCTION, TOTAL	\$ 14,762,882,717.80	100.00%
PROFESSIONAL SERVICES	Amount	Percent
<i>Inside NYC 13-County Market Area</i>	\$ 9,407,399,698.31	74.89%
Outside NYC 13-County Market Area	\$ 3,154,415,234.82	25.11%
PROFESSIONAL SERVICES, TOTAL	\$ 12,561,814,933.13	100.00%
STANDARDIZED SERVICES	Amount	Percent
<i>Inside NYC 13-County Market Area</i>	\$ 16,021,407,522.15	72.34%
Outside NYC 13-County Market Area	\$ 6,124,889,433.30	27.66%
STANDARDIZED SERVICES, TOTAL	\$ 22,146,296,955.45	100.00%
GOODS OR COMMODITIES	Amount	Percent
<i>Inside NYC 13-County Market Area</i>	\$ 5,303,674,421.03	54.99%
Outside NYC 13-County Market Area	\$ 4,340,981,330.63	45.01%
GOODS OR COMMODITIES, TOTAL	\$ 9,644,655,751.66	100.00%
ALL BUSINESS CATEGORIES	Amount	Percent
<i>Inside NYC 13-County Market Area</i>	\$ 54,383,736,955.22	74.82%
Outside NYC 13-County Market Area	\$ 18,301,923,590.33	25.18%
ALL BUSINESS CATEGORIES, TOTAL	\$ 72,685,660,545.55	100.00%

Corresponding market area analyses showing the dollars awarded by county and total contracts for each procurement category are presented in [Appendix A, Table A-1](#) through [Table A-6](#).

3.3.3 MARKET AREA CONCLUSIONS

Based on the market area analysis of the City's procurement activity it was determined that the 13 counties encompassing the City's current default Minority and Women-owned Business Enterprise (M/WBE) Certification area (the New York counties of Bronx, Kings, New York, Richmond, Queens, Nassau, Putnam, Rockland, Suffolk, and Westchester, and New Jersey counties of Bergen, Hudson, and Passaic) should continue to be used as the market area. This 13-County Market Area satisfies the 75 percent rule in terms of overall coverage with 74.82 percent of the awards and four of the five specific procurement categories close to or beyond this benchmark. The Goods or Commodities sector falls below the guideline at 54.99 percent, but since a majority of awards are still in the 13-County Market Area the inclusion of Goods does not significantly impact or undermine the credibility of this defined market. The definition of the relevant market area allows for detailed examinations of contracting activity with local vendors. The following section describes the results of this utilization analysis for the City.

3.4 UTILIZATION ANALYSIS

The utilization analysis presents a summary of contract awards within the scope of the study and an analysis of M/WBE utilization in the City contracting.

The utilization analysis is based on the defined relevant market area, as described in the preceding sections of this chapter. The awards data included within this analysis encompass both (1) dollars awarded to primes located within the market area (excluding all subcontracting awards, or “pure primes”) and (2) dollars allocated to subcontractors located within the market area, independent of their respective prime contractor location. Analysis of these data is broken down by the procurement categories of Architecture & Engineering, Construction, Professional Services, Standardized Services, and Goods or Commodities, and encompasses awards between July 1, 2006 and June 30, 2015.

For the purpose of flagging M/WBE status, MGT collected vendor classification lists from the City, other public entities, and other relevant⁵⁰ vendor lists containing firm M/WBE status. MGT then created a comprehensive list which was used to flag M/WBEs in the utilization analysis.

3.4.1 CLASSIFICATION OF FIRMS

Firms included in the utilization analysis have been assigned to business owner classifications according to the definitions provided below.⁵¹

- ◆ **M/WBE Firms.** In this study, businesses classified as minority- and women-owned firms are those that are at least 51 percent owned and controlled by members of one of five groups: African Americans, Asian Americans, Hispanic Americans, Native Americans, or Nonminority Females. These groups were defined according to the United States (U.S.) Census Bureau as follows:
 - **African Americans:** U.S. citizens or lawfully admitted permanent residents having an origin in any of the black racial groups of Africa.
 - **Asian Americans:** U.S. citizens or lawfully admitted permanent residents who originate from the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands.
 - **Hispanic Americans:** U.S. citizens or lawfully admitted permanent residents of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish or Portuguese cultures or origins regardless of race.
 - **Native Americans:** U.S. citizens or lawfully admitted permanent residents who originate from any of the original peoples of North America and who maintain cultural identification through tribal affiliation or community recognition.

⁵⁰ Relevant refers to lists where MGT could determine willingness of the vendor to do work for the City.

⁵¹ Business ownership classification was based on the race, ethnicity, and gender classification of the owner during the study period.

- **Nonminority Female:** U.S. citizens or lawfully admitted permanent residents who are non-Hispanic white female. Minority females were included in their respective minority category.
- Minority female- and male-owned firms were classified and assigned to their corresponding minority groups. For example, a Hispanic American female- or Hispanic American male-owned firm was assigned to the Hispanic American-owned firm minority group.
- ♦ **Non-M/WBE Firms:** Firms that were identified as nonminority male-owned or majority-owned by nonminority males were classified as non-M/WBE firms. If there was no indication of business ownership, these firms were also classified as non-M/WBE firms.
- ♦ **MBE Firms:** All minority-owned firms, regardless of gender.
- ♦ **WBE Firms:** All women-owned firms, regardless of race or ethnicity.

3.4.2 OVERALL UTILIZATION

Table 3-2 shows the M/WBE utilization amounted to 10.36 percent of total awards. Corresponding detailed analyses showing the utilization of firms by business ownership classification and year are presented in **Appendix B, Table B-1**.

TABLE 3-2
UTILIZATION ANALYSIS BY BUSINESS OWNERSHIP CLASSIFICATION,
ALL PROCUREMENT CATEGORIES

BUSINESS OWNERSHIP CLASSIFICATION	ALL PROCUREMENT CATEGORIES	
	DOLLARS AWARDED	PERCENT OF DOLLARS
African American Male	\$688,889,103.69	1.26%
African American Female	\$111,904,135.23	0.20%
AFRICAN AMERICAN	\$800,793,238.92	1.46%
Asian American Male	\$1,575,519,313.91	2.88%
Asian American Female	\$140,773,038.41	0.26%
ASIAN AMERICAN	\$1,716,292,352.32	3.14%
Hispanic American Male	\$708,469,526.99	1.30%
Hispanic American Female	\$140,208,042.01	0.26%
HISPANIC AMERICAN	\$848,677,569.00	1.55%
Native American Male	\$1,915,747.38	0.00%
Native American Female	\$0.00	0.00%
NATIVE AMERICAN	\$1,915,747.38	0.00%
TOTAL MBE	\$3,367,678,907.62	6.16%
NONMINORITY FEMALE	\$2,296,545,510.18	4.20%
TOTAL WBE	\$2,689,430,725.83	4.92%
TOTAL M/WBE	\$5,664,224,417.80	10.36%
NON-M/WBE	\$49,023,328,694.56	89.64%
TOTAL	\$54,687,553,112.36	100.00%

3.4.3 UTILIZATION BY PROCUREMENT CATEGORY

The next series of tables show the summary results of MGT's utilization analysis of each of the procurement categories. Corresponding detailed analyses, showing the utilization of firms by business ownership classification and year for each procurement category, are presented in **Appendix B, Table B-2** through **Table B-6**.

Beginning with an examination of **Architecture & Engineering, Table 3-3** shows the utilization of M/WBE firms was 4.03 percent. Otherwise, utilization for specific classifications was:

- ◆ 0.11 percent for African American firms;
- ◆ 2.78 percent for Asian American firms;
- ◆ 0.31 percent for Hispanic American firms;
- ◆ 0.00 percent for Native American firms; and
- ◆ 1.16 percent for Women-owned firms.

TABLE 3-3
UTILIZATION ANALYSIS BY BUSINESS OWNERSHIP CLASSIFICATION,
ARCHITECTURE & ENGINEERING

BUSINESS OWNERSHIP CLASSIFICATION	ARCHITECTURE & ENGINEERING	
	DOLLARS AWARDED	PERCENT OF DOLLARS
African American Male	\$10,083,670.10	0.11%
African American Female	\$895,540.00	0.01%
AFRICAN AMERICAN	\$10,979,210.10	0.11%
Asian American Male	\$237,560,206.73	2.47%
Asian American Female	\$29,253,219.63	0.30%
ASIAN AMERICAN	\$266,813,426.36	2.78%
Hispanic American Male	\$28,238,517.16	0.29%
Hispanic American Female	\$1,349,948.00	0.01%
HISPANIC AMERICAN	\$29,588,465.16	0.31%
Native American Male	\$0.00	0.00%
Native American Female	\$0.00	0.00%
NATIVE AMERICAN	\$0.00	0.00%
TOTAL MBE	\$307,381,101.62	3.20%
NONMINORITY FEMALE	\$79,822,952.35	0.83%
TOTAL WBE	\$111,321,659.98	1.16%
TOTAL M/WBE	\$387,204,053.97	4.03%
NON-M/WBE	\$9,212,150,164.98	95.97%
TOTAL	\$9,599,354,218.95	100.00%

Table 3-4 shows the utilization of M/WBE firms was 19.45 percent in **Construction**. By individual classification, M/WBE utilization was:

- ◆ 3.49 percent for African American firms;
- ◆ 4.98 percent for Asian American firms;
- ◆ 3.32 percent for Hispanic American firms;
- ◆ 0.01 percent for Native American firms; and
- ◆ 8.64 percent for Women-owned firms.

TABLE 3-4
UTILIZATION ANALYSIS BY BUSINESS OWNERSHIP CLASSIFICATION,
CONSTRUCTION

BUSINESS OWNERSHIP CLASSIFICATION	CONSTRUCTION	
	DOLLARS AWARDED	PERCENT OF DOLLARS
African American Male	\$496,516,561.45	3.36%
African American Female	\$18,616,954.32	0.13%
AFRICAN AMERICAN	\$515,133,515.77	3.49%
Asian American Male	\$692,858,629.86	4.69%
Asian American Female	\$42,618,135.08	0.29%
ASIAN AMERICAN	\$735,476,764.94	4.98%
Hispanic American Male	\$405,212,287.60	2.74%
Hispanic American Female	\$85,526,653.23	0.58%
HISPANIC AMERICAN	\$490,738,940.83	3.32%
Native American Male	\$1,791,947.38	0.01%
Native American Female	\$0.00	0.00%
NATIVE AMERICAN	\$1,791,947.38	0.01%
TOTAL MBE	\$1,743,141,168.92	11.80%
NONMINORITY FEMALE	\$1,129,296,429.06	7.65%
TOTAL WBE	\$1,276,058,171.69	8.64%
TOTAL M/WBE	\$2,872,437,597.98	19.45%
NON-M/WBE	\$11,894,577,761.23	80.55%
TOTAL	\$14,767,015,359.21	100.00%

Table 3-5 shows the utilization of M/WBE firms was 8.24 percent in **Professional Services**. Individually, the M/WBE utilization was:

- ◆ 0.88 percent for African American firms;
- ◆ 4.33 percent for Asian American firms;
- ◆ 0.85 percent for Hispanic American firms;
- ◆ 0.00 percent for Native American firms; and
- ◆ 2.92 percent for Women-owned firms.

TABLE 3-5
UTILIZATION ANALYSIS BY BUSINESS OWNERSHIP CLASSIFICATION,
PROFESSIONAL SERVICES

BUSINESS OWNERSHIP CLASSIFICATION	PROFESSIONAL SERVICES	
	DOLLARS AWARDED	PERCENT OF DOLLARS
African American Male	\$67,400,979.50	0.65%
African American Female	\$24,522,272.68	0.23%
AFRICAN AMERICAN	\$91,923,252.18	0.88%
Asian American Male	\$420,410,105.62	4.03%
Asian American Female	\$31,881,963.12	0.31%
ASIAN AMERICAN	\$452,292,068.74	4.33%
Hispanic American Male	\$67,980,377.45	0.65%
Hispanic American Female	\$20,746,877.25	0.20%
HISPANIC AMERICAN	\$88,727,254.70	0.85%
Native American Male	\$0.00	0.00%
Native American Female	\$0.00	0.00%
NATIVE AMERICAN	\$0.00	0.00%
TOTAL MBE	\$632,942,575.62	6.06%
NONMINORITY FEMALE	\$227,299,246.47	2.18%
TOTAL WBE	\$304,450,359.52	2.92%
TOTAL M/WBE	\$860,241,822.09	8.24%
NON-M/WBE	\$9,576,432,943.76	91.76%
TOTAL	\$10,436,674,765.85	100.00%

Table 3-6 shows the utilization of M/WBE firms was 7.11 percent in **Standardized Services**. Individually, the M/WBE utilization was:

- ◆ 1.02 percent for African American firms;
- ◆ 1.18 percent for Asian American firms;
- ◆ 1.11 percent for Hispanic American firms;
- ◆ Less than 0.01 percent for Native American firms; and
- ◆ 4.46 percent for Women-owned firms.

TABLE 3-6
UTILIZATION ANALYSIS BY BUSINESS OWNERSHIP CLASSIFICATION,
STANDARDIZED SERVICES

BUSINESS OWNERSHIP CLASSIFICATION	STANDARDIZED SERVICES	
	DOLLARS AWARDED	PERCENT OF DOLLARS
African American Male	\$89,348,381.31	0.61%
African American Female	\$59,952,399.59	0.41%
AFRICAN AMERICAN	\$149,300,780.90	1.02%
Asian American Male	\$159,268,043.15	1.09%
Asian American Female	\$12,857,668.92	0.09%
ASIAN AMERICAN	\$172,125,712.07	1.18%
Hispanic American Male	\$137,586,551.74	0.94%
Hispanic American Female	\$24,166,998.00	0.17%
HISPANIC AMERICAN	\$161,753,549.74	1.11%
Native American Male	\$94,839.00	0.00%
Native American Female	\$0.00	0.00%
NATIVE AMERICAN	\$94,839.00	0.00%
TOTAL MBE	\$483,274,881.71	3.31%
NONMINORITY FEMALE	\$555,012,676.39	3.80%
TOTAL WBE	\$651,989,742.90	4.46%
TOTAL M/WBE	\$1,038,287,558.10	7.11%
NON-M/WBE	\$13,567,756,600.54	92.89%
TOTAL	\$14,606,044,158.64	100.00%

Table 3-7 shows the utilization of M/WBE firms was 9.59 percent in the **Goods or Commodities** sector. Individually, the M/WBE utilization was:

- ◆ 0.63 percent for African American firms;
- ◆ 1.70 percent for Asian American firms;
- ◆ 1.48 percent for Hispanic American firms;
- ◆ Less than 0.01 percent for Native American firms; and
- ◆ 6.55 percent for Women-owned firms.

TABLE 3-7
UTILIZATION ANALYSIS BY BUSINESS OWNERSHIP CLASSIFICATION,
GOODS OR COMMODITIES

BUSINESS OWNERSHIP CLASSIFICATION	GOODS OR COMMODITIES	
	DOLLARS AWARDED	PERCENT OF DOLLARS
African American Male	\$25,539,511.33	0.48%
African American Female	\$7,916,968.64	0.15%
AFRICAN AMERICAN	\$33,456,479.97	0.63%
Asian American Male	\$65,422,328.55	1.24%
Asian American Female	\$24,162,051.66	0.46%
ASIAN AMERICAN	\$89,584,380.21	1.70%
Hispanic American Male	\$69,451,793.04	1.32%
Hispanic American Female	\$8,417,565.53	0.16%
HISPANIC AMERICAN	\$77,869,358.57	1.48%
Native American Male	\$28,961.00	0.00%
Native American Female	\$0.00	0.00%
NATIVE AMERICAN	\$28,961.00	0.00%
TOTAL MBE	\$200,939,179.75	3.81%
NONMINORITY FEMALE	\$305,114,205.91	5.78%
TOTAL WBE	\$345,610,791.74	6.55%
TOTAL M/WBE	\$506,053,385.66	9.59%
NON-M/WBE	\$4,772,411,224.05	90.41%
TOTAL FIRMS	\$5,278,464,609.71	100.00%

3.4.4 CONTRACT THRESHOLD ANALYSIS

Analysis of utilization by contract size, referred to as a *threshold* analysis, can reveal current circumstances regarding the observed potential of M/WBE vendors to perform jobs of different scales (as measured by dollar value) within the defined procurement categories. These insights should not be viewed as a boundary or hard limitation on M/WBE utilization. Capacity obstacles in some industries, such as in some domains of Construction, are readily overcome as staff expansion can be accomplished rather quickly (highly elastic), while in others, a significant expansion in the scale of the business can require more time and investment, and thus may present a more persistent issue (less elastic).

Execution of a contract threshold analysis requires identification of progressively larger bands of contracts to observe where variation in vendor participation may be impacted based on the size of the contract. MGT's approach to this analysis entailed the following:

- ◆ We examine the mean (average) contract values of M/WBE awards as well as contract values within one and two standard deviations of this M/WBE mean.
- ◆ Examination of the mean (average) contract values of all awards as well as contract values within one and two standard deviations of this total mean.
- ◆ Two standard deviations, equivalent to a 95 percent confidence interval, has consistently been accepted by courts with regard to the statistical significance of disparities, and thus can serve for a key benchmark for this analysis, as well.

Table 3-8 depicts the incremental and cumulative proportions of contracts by size (threshold) for all procurement categories. Mean contract award sizes and the first and second standard deviations beyond the mean are highlighted for both M/WBEs and the total universe of contracts during the study period.

TABLE 3-8
CONTRACT AWARDS TO M/WBES VS. FULL UNIVERSE
ALL PROCUREMENT CATEGORIES

	M/WBE Awards	All Awards
Mean (μ)	\$87,200	\$197,784
$\mu + 1$ Std. Deviation (1σ)	\$1,079,655	\$7,437,909
$\mu + 2$ Std. Deviations (2σ)	\$2,159,309	\$14,875,818
Maximum	\$149,472,479	\$1,834,874,823

Table 3-9 shows contracts size categories (thresholds) based on the values depicted in **Table 3-8**.

TABLE 3-9
CONTRACT THRESHOLDS

THRESHOLDS	THRESHOLD LOGIC
<= \$100K	< ~M/WBE Mean
> \$100K, <= \$200K	> ~M/WBE Mean, <= ~All Awards Mean
> \$200K, <= \$1M	> ~All Awards Mean, <= ~1 Std Dev of M/WBE Mean
> \$1M, <= \$2M	> ~1 Std Dev of M/WBE Mean, <= ~2 Std Dev of M/WBE Mean
> \$2M, <= \$7.5M	> ~2 Std Dev of M/WBE Mean, <= ~1 Std Dev All Awards Mean
> \$7.5, <= \$15M	> ~1 Std Dev All Awards Mean, <= ~2 Std Dev All Awards Mean
> \$15M	> ~2 Std Dev All Awards Mean

Figure 3-2 shows that M/WBEs have been able to win awards across all size categories. Utilization is greater than 30 percent for contracts up to \$1 million. It decreases for contract categories above \$1 million but remains present even for contracts above \$15 million. However, contracts above \$15 million are beyond two standard deviations from the mean of all contract awards, and therefore are outliers that are not indicative of the City’s procurement universe.

FIGURE 3-2
PERCENTAGE OF UTILIZATION OF M/WBE FIRMS BY CONTRACT AWARD SIZE/
THRESHOLD DOLLAR RANGES
ALL PROCUREMENT CATEGORIES

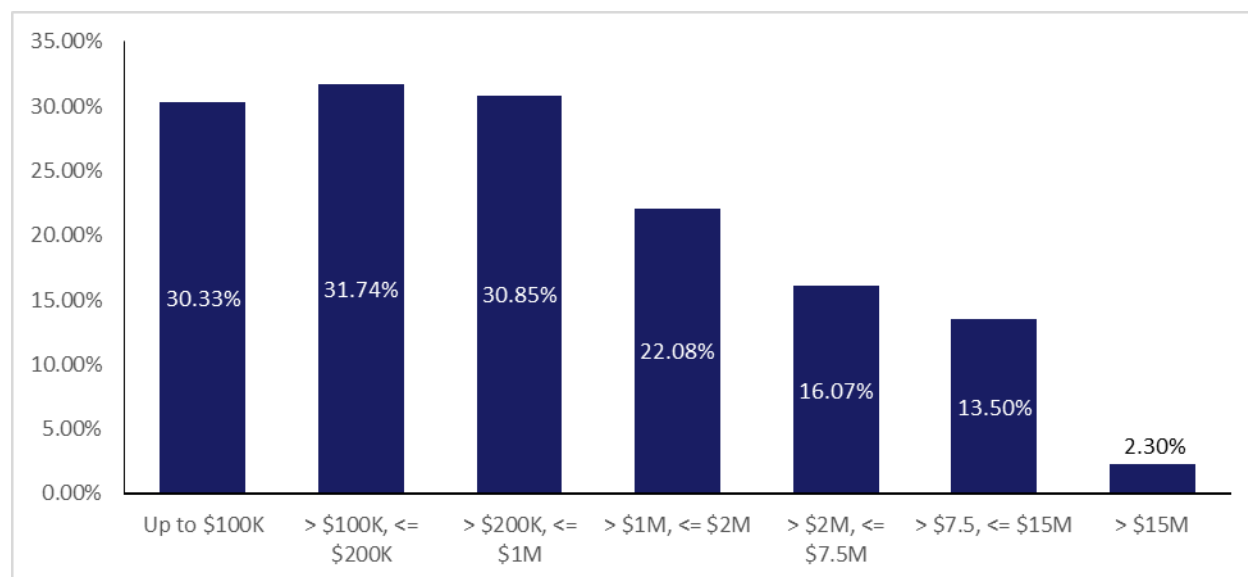


Figure 3-3 shows that M/WBEs have been able to win a sizeable share of awards of increasing values spanning across all procurement categories. M/WBE utilization is very prominent for contracts up to \$2 million (27 percent or more of contracts in Architecture & Engineering, Construction, and Professional

Services), but decreases significantly for contract categories above this threshold. Utilization remains present in small increments, however, even for contracts above \$15 million in all the procurement categories except for Goods or Commodities.

FIGURE 3-3
 PERCENTAGE OF UTILIZATION OF M/WBE FIRMS BY CONTRACT AWARD SIZE/
 THRESHOLD DOLLAR RANGES
 BY PROCUREMENT CATEGORIES

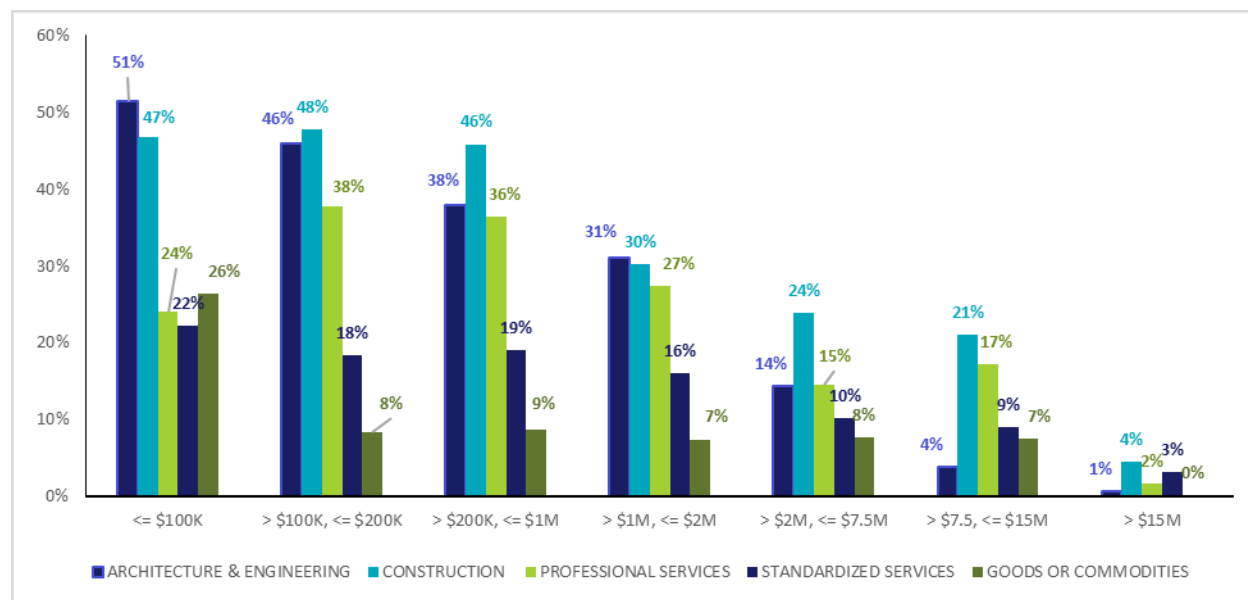


Table 3-10 depicts the incremental and cumulative proportions of contracts by size (threshold) for the **Architecture & Engineering** procurement category. Mean contract award sizes and the first and second standard deviations beyond the mean are highlighted for both M/WBEs and the total universe of contracts during the study period. We observe that:

- ◆ Over 65 percent of all contracts in this sector had a total value less than or equal to the mean of M/WBE contract awards.
- ◆ Over 80 percent of all contract awards in this sector were within one standard deviation of the M/WBE mean contract value.
- ◆ Over 86 percent of all contract awards in this sector were within two standard deviations of the M/WBE mean contract value.
- ◆ Over 97 percent of all contract awards in this sector were less than or equal to the largest observed contract awarded to an M/WBE.

TABLE 3-10
ARCHITECTURE & ENGINEERING CONTRACT AWARDS TO M/WBES VS. FULL UNIVERSE

		# OF CONTRACTS			
		M/WBE Awards		All Awards	
Mean (μ)		\$610,732		\$4,828,649	
$\mu + 1$ Std. Deviation (1σ)		\$2,239,902		\$43,978,941	
$\mu + 2$ Std. Deviations (2σ)		\$3,869,073		\$92,786,531	
Maximum		\$22,758,226		\$1,337,003,565	
Contract Thresholds/ \$ Values Up to:		Increment % of Awards	Cumulative % of Awards	Increment % of Awards	Cumulative % of Awards
<= \$100K	\$100,000	50.32%	50.32%	45.42%	45.42%
<= \$200K	\$200,000	9.46%	59.78%	6.69%	52.11%
MWBE μ	\$610,732	18.45%	78.23%	13.08%	65.19%
<= \$1M	\$1,000,000	6.47%	84.70%	6.49%	71.68%
<= \$2M	\$2,000,000	7.89%	92.59%	7.95%	79.63%
M/WBE $\mu + 1 \sigma$	\$2,239,902	0.95%	93.53%	1.06%	80.68%
M/WBE $\mu + 2 \sigma$	\$3,869,073	3.79%	97.32%	5.78%	86.47%
Overall μ	\$4,828,649	0.79%	98.11%	2.26%	88.73%
<= \$7.5M	\$7,500,000	1.26%	99.37%	4.18%	92.91%
<= \$15M	\$15,000,000	0.32%	99.68%	3.42%	96.33%
M/WBE Max	\$22,758,226	0.32%	100.00%	1.01%	97.33%
Overall $\mu + 1 \sigma$	\$43,978,941			1.06%	98.39%
Overall $\mu + 2 \sigma$	\$92,786,531			0.86%	99.25%
Overall Max	\$1,337,003,565			0.75%	100.00%

Graphical characteristics of the distributions of Architecture & Engineering awards to M/WBEs versus the full sector appear in **Figure 3-4**.

- ◆ Each color represents a graphical representation for three categories: M/WBE awards, all contract awards, and thresholds with no M/WBE participation. For example, in this sector, 85 percent of M/WBE awards occur at or below \$1 million, while 72 percent of all awards have values at or below \$1 million.
- ◆ M/WBEs participate in contracts ranging up to \$22.8 million, which accounts for over 97 percent of the full universe of awards in this sector.

FIGURE 3-4
 GRAPHICAL DEPICTIONS OF **ARCHITECTURE & ENGINEERING** CONTRACT AWARDS TO M/WBES
 VS. AWARDS TO ALL VENDORS

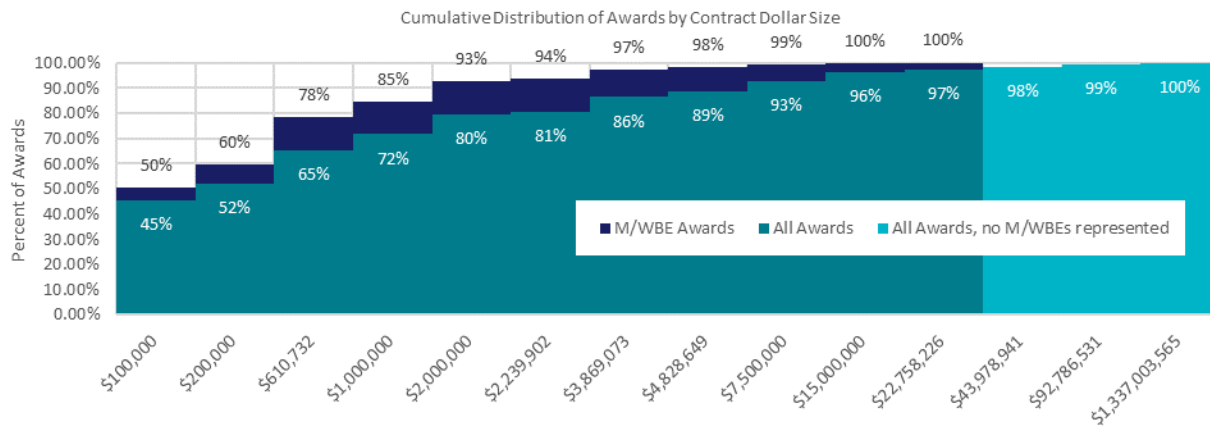


Table 3-11 depicts the incremental and cumulative proportions of contracts by size (threshold) for the **Construction** procurement category. Mean contract award sizes and the first and second standard deviations beyond the mean are highlighted for both M/WBEs and the total universe of contracts during the study period. We observe that:

- Over 84 percent of all contracts in this sector had a total value less than or equal to the mean of M/WBE contract awards.
- Over 95 percent of all contract awards in this sector were within one standard deviation of the M/WBE mean contract value.
- Over 96 percent of all contract awards in this sector were within two standard deviations of the M/WBE mean contract value.
- Over 99 percent of all contract awards in this sector were less than or equal to the largest observed contract awarded to an M/WBE.

TABLE 3-11
CONSTRUCTION CONTRACT AWARDS TO M/WBES VS. FULL UNIVERSE

		# OF CONTRACTS			
		M/WBE Awards		All Awards	
Mean (μ)		\$204,648		\$454,860	
$\mu + 1$ Std. Deviation (1σ)		\$1,483,453		\$4,282,982	
$\mu + 2$ Std. Deviations (2σ)		\$2,762,259		\$8,111,104	
Maximum		\$95,900,000		\$334,127,198	
Contract Thresholds/ \$ Values Up to:		Increment % of Awards	Cumulative % of Awards	Increment % of Awards	Cumulative % of Awards
<= \$100K	\$100,000	79.00%	79.00%	77.75%	77.75%
<= \$200K	\$200,000	7.07%	86.07%	6.41%	84.16%
MWBE μ	\$204,648	0.12%	86.19%	0.13%	84.29%
Overall μ	\$454,860	6.18%	92.38%	5.54%	89.84%
<= \$1M	\$1,000,000	4.40%	96.77%	9.87%	94.16%
M/WBE $\mu + 1 \sigma$	\$1,483,453	0.84%	97.61%	1.08%	95.23%
<= \$2M	\$2,000,000	0.65%	98.26%	2.10%	96.26%
M/WBE $\mu + 2 \sigma$	\$2,762,259	0.32%	98.58%	1.69%	96.93%
Overall $\mu + 1 \sigma$	\$4,282,982	0.57%	99.15%	0.98%	97.90%
<= \$7.5M	\$7,500,000	0.50%	99.65%	0.92%	98.83%
Overall $\mu + 2 \sigma$	\$9,020,823	0.11%	99.76%	0.13%	98.96%
<= \$15M	\$15,000,000	0.18%	99.94%	0.50%	99.46%
M/WBE Max	\$95,900,000	0.06%	100.00%	0.52%	99.98%
Overall Max	\$334,127,198			0.02%	100.00%

Graphical characteristics of the distributions of Construction awards to M/WBES versus the full sector appear in **Figure 3-5**.

- ◆ Each color represents a graphical representation for three categories: M/WBE awards, all contract awards, and thresholds with no M/WBE participation. For example, in this sector, 97 percent of M/WBE awards occur at or below \$1 million, while 94 percent of all awards have values at or below \$1 million.
- ◆ M/WBES participate in contracts ranging up to \$95.9 million, which accounts for nearly the full universe (99.98%) of awards in this sector.

FIGURE 3-5
 GRAPHICAL DEPICTIONS OF **CONSTRUCTION** CONTRACT AWARDS TO M/WBES
 VS. AWARDS TO ALL VENDORS

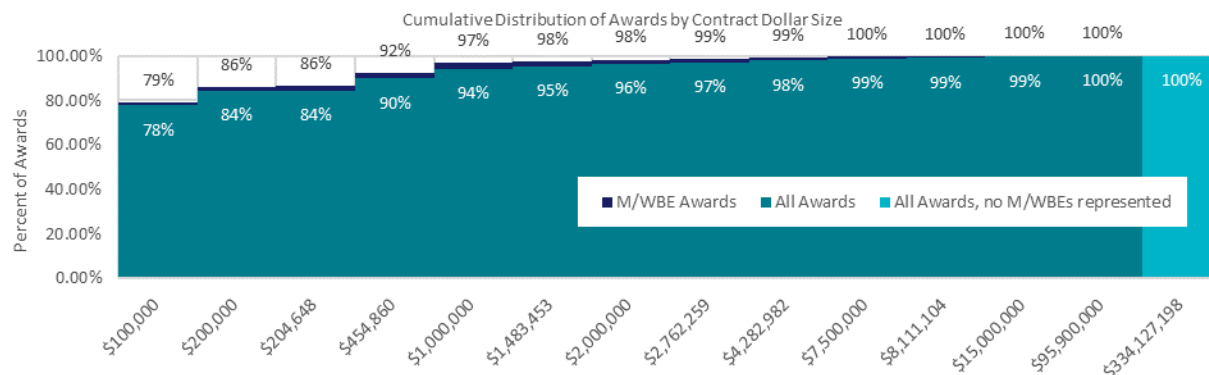


Table 3-12 depicts the incremental and cumulative proportions of contracts by size (threshold) for the **Professional Services** procurement category. Mean contract award sizes and the first and second standard deviations beyond the mean are highlighted for both M/WBEs and the total universe of contracts during the study period. We observe that:

- ◆ Over 88 percent of all contracts in this sector had a total value less than or equal to the mean of M/WBE contract awards.
- ◆ Over 97 percent of all contract awards in this sector were within one standard deviation of the M/WBE mean contract value.
- ◆ Over 98 percent of all contract awards in this sector were within two standard deviations of the M/WBE mean contract value.
- ◆ Over 99 percent of all contract awards in this sector were less than or equal to the largest observed contract awarded to an M/WBE.

TABLE 3-12
PROFESSIONAL SERVICES CONTRACT AWARDS TO M/WBES VS. FULL UNIVERSE

		# OF CONTRACTS			
		M/WBE Awards		All Awards	
Mean (μ)		\$233,318		\$538,723	
$\mu + 1$ Std. Deviation (1σ)		\$1,358,504		\$18,914,462	
$\mu + 2$ Std. Deviations (2σ)		\$2,483,691		\$37,290,202	
Maximum		\$30,116,643		\$1,834,874,823	
Contract Thresholds/ \$ Values Up to:		Increment % of Awards	Cumulative % of Awards	Increment % of Awards	Cumulative % of Awards
<= \$100K	\$100,000	71.11%	71.11%	83.53%	83.53%
<= \$200K	\$200,000	8.79%	79.90%	4.45%	87.98%
MWBE μ	\$233,318	1.44%	81.34%	0.77%	88.76%
Overall μ	\$538,723	10.88%	92.22%	5.49%	94.25%
<= \$1M	\$1,000,000	3.91%	96.12%	2.13%	96.38%
M/WBE $\mu + 1 \sigma$	\$1,358,504	1.38%	97.50%	0.74%	97.11%
<= \$2M	\$2,000,000	0.84%	98.35%	0.74%	97.86%
M/WBE $\mu + 2 \sigma$	\$2,483,691	0.22%	98.56%	0.25%	98.11%
<= \$7.5M	\$7,500,000	1.03%	99.59%	1.24%	99.35%
<= \$15M	\$15,000,000	0.27%	99.86%	0.30%	99.66%
Overall $\mu + 1 \sigma$	\$18,914,462	0.05%	99.92%	0.06%	99.72%
M/WBE Max	\$30,116,643	0.08%	100.00%	0.14%	99.86%
Overall $\mu + 2 \sigma$	\$38,367,647			0.03%	99.88%
Overall Max	\$1,834,874,823			0.12%	100.00%

Graphical characteristics of the distributions of Professional Services awards to M/WBES versus the full sector appear in **Figure 3-6**.

- ◆ Each color represents a graphical representation for three categories: M/WBE awards, all contract awards, and thresholds with no M/WBE participation. For example, in this sector, 96 percent of M/WBE awards and the full universe of awards occur at or below \$1 million.
- ◆ M/WBES participate in contracts ranging up to \$30.1 million, which accounts for nearly the full universe (99.86%) of awards in this sector.

FIGURE 3-6
 GRAPHICAL DEPICTIONS OF PROFESSIONAL SERVICES CONTRACT AWARDS TO M/WBES
 VS. AWARDS TO ALL VENDORS

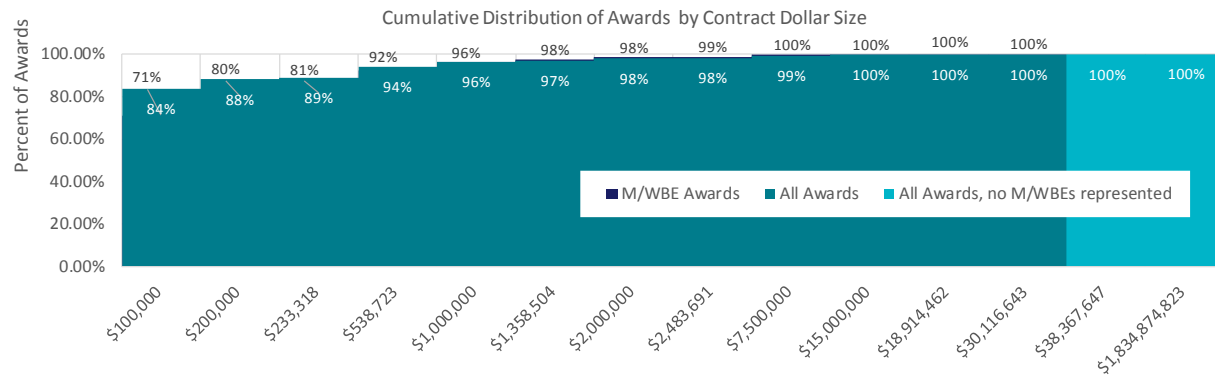


Table 3-13 depicts the incremental and cumulative proportions of contracts by size (threshold) for the **Standardized Services** procurement category. Mean contract award sizes and the first and second standard deviations beyond the mean are highlighted for both M/WBEs and the total universe of contracts during the study period. We observe that:

- ◆ Over 93 percent of all contracts in this sector had a total value less than or equal to the mean of M/WBE contract awards.
- ◆ Over 98 percent of all contract awards in this sector were within one standard deviation of the M/WBE mean contract value.
- ◆ Over 99 percent of all contract awards in this sector were within two standard deviations of the M/WBE mean contract value.
- ◆ Nearly 100 percent of all contract awards in this sector were less than or equal to the largest observed contract awarded to an M/WBE.

TABLE 3-13
STANDARDIZED SERVICES CONTRACT AWARDS TO M/WBES VS. FULL UNIVERSE

		# OF CONTRACTS			
		M/WBE Awards		All Awards	
Mean (μ)		\$108,630		\$252,477	
$\mu + 1$ Std. Deviation (1σ)		\$1,962,745		\$8,050,513	
$\mu + 2$ Std. Deviations (2σ)		\$3,816,859		\$15,848,549	
Maximum		\$149,472,479		\$1,120,000,000	
Contract Thresholds/ \$ Values Up to:		Increment % of Awards	Cumulative % of Awards	Increment % of Awards	Cumulative % of Awards
<= \$100K	\$100,000	93.17%	93.17%	93.04%	93.04%
MWBE μ	\$108,630	0.17%	93.34%	0.12%	93.16%
<= \$200K	\$200,000	1.38%	94.72%	1.28%	94.45%
Overall μ	\$252,477	0.41%	95.12%	0.47%	94.92%
<= \$1M	\$1,000,000	3.04%	98.17%	2.71%	97.63%
M/WBE $\mu + 1 \sigma$	\$1,962,745	1.03%	99.19%	1.02%	98.65%
<= \$2M	\$2,000,000	0.02%	99.22%	0.04%	98.69%
M/WBE $\mu + 2 \sigma$	\$3,816,859	0.47%	99.69%	0.58%	99.27%
<= \$7.5M	\$7,500,000	0.17%	99.85%	0.34%	99.62%
Overall $\mu + 1 \sigma$	\$8,050,513	0.01%	99.86%	0.01%	99.63%
<= \$15M	\$15,000,000	0.09%	99.96%	0.18%	99.81%
Overall $\mu + 2 \sigma$	\$16,353,503	0.00%	99.96%	0.01%	99.82%
M/WBE Max	\$149,472,479	0.04%	100.00%	0.16%	99.98%
Overall Max	\$1,120,000,000			0.02%	100.00%

Graphical characteristics of the distributions of Professional Services awards to M/WBEs versus the full sector appear in **Figure 3-7**.

- ◆ Each color represents a graphical representation for three categories: M/WBE awards, all contract awards, and thresholds with no M/WBE participation. For example, in this sector, about 98 percent of M/WBE (98.17%) and the full universe of awards (97.63%) occur at or below \$1 million.
- ◆ M/WBEs participate in contracts ranging up to \$149.5 million, which accounts for nearly the full universe (99.98%) of awards in this sector.

FIGURE 3-7
 GRAPHICAL DEPICTIONS OF **STANDARDIZED SERVICES** CONTRACT AWARDS TO M/WBES
 VS. AWARDS TO ALL VENDORS

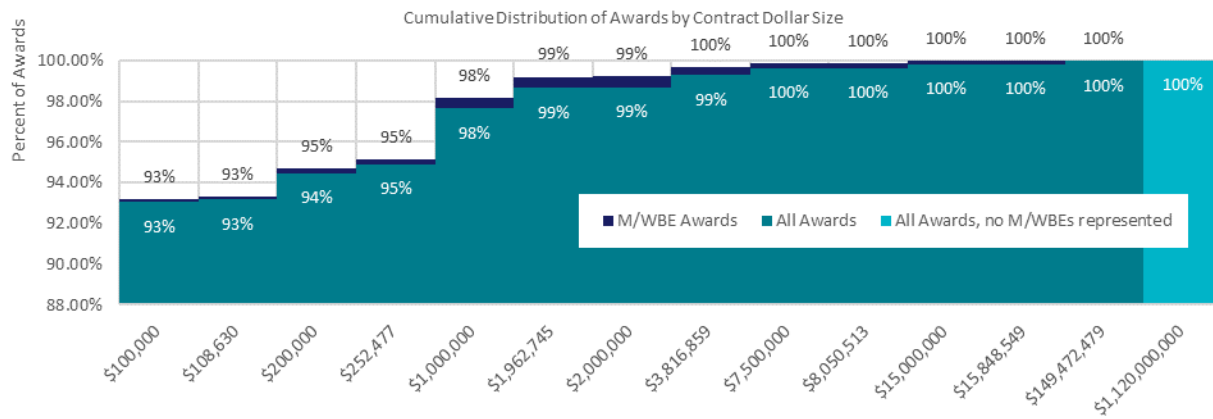


Table 3-14 depicts the incremental and cumulative proportions of contracts by size (threshold) for the **Goods or Commodities** procurement category. Mean contract award sizes and the first and second standard deviations beyond the mean are highlighted for both M/WBEs and the total universe of contracts during the study period. We observe that:

- ◆ Nearly 87 percent of all contracts in this sector had a total value less than or equal to the mean of M/WBE contract awards.
- ◆ Over 98 percent of all contract awards in this sector were within one standard deviation of the M/WBE mean contract value.
- ◆ 99 percent of all contract awards in this sector were within two standard deviations of the M/WBE mean contract value.
- ◆ Nearly 100 percent of all contract awards in this sector were less than or equal to the largest observed contract awarded to an M/WBE.

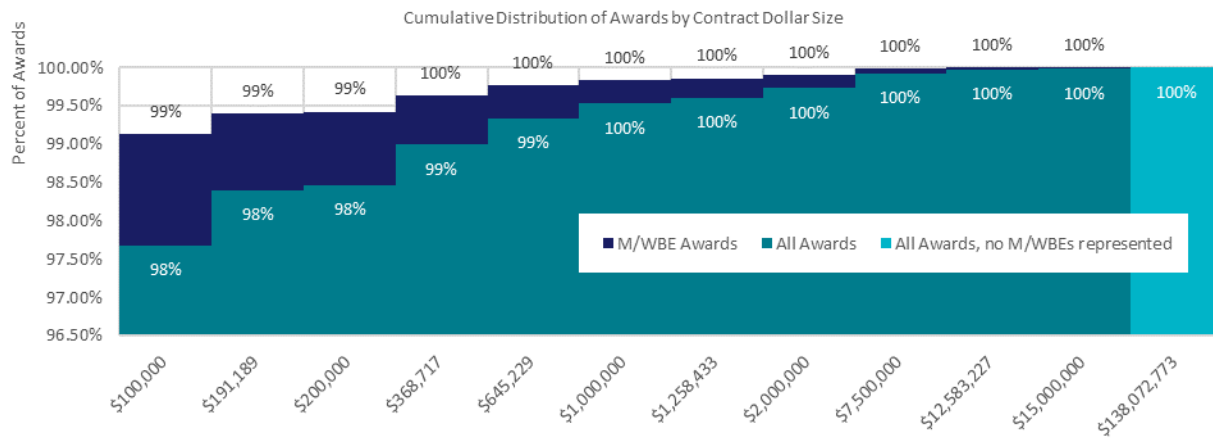
TABLE 3-14
GOODS OR COMMODITIES CONTRACT AWARDS TO M/WBES VS. FULL UNIVERSE

		# OF CONTRACTS			
		M/WBE Awards		All Awards	
Mean (μ)		\$13,662		\$32,025	
$\mu + 1$ Std. Deviation (1σ)		\$191,189		\$645,229	
$\mu + 2$ Std. Deviations (2σ)		\$368,717		\$1,258,433	
Maximum		\$12,583,227		\$138,072,773	
Contract Thresholds/ \$ Values Up to:		Increment % of Awards	Cumulative % of Awards	Increment % of Awards	Cumulative % of Awards
M/WBE μ	\$13,662	86.77%	86.77%	87.40%	87.40%
Overall μ	\$32,025	8.91%	95.68%	6.70%	94.10%
<= \$100K	\$100,000	3.44%	99.13%	3.58%	97.68%
M/WBE $\mu + 1 \sigma$	\$191,189	0.27%	99.40%	0.71%	98.40%
<= \$200K	\$200,000	0.03%	99.42%	0.07%	98.47%
M/WBE $\mu + 2 \sigma$	\$368,717	0.21%	99.63%	0.53%	99.00%
Overall $\mu + 1 \sigma$	\$645,229	0.14%	99.77%	0.34%	99.34%
<= \$1M	\$1,000,000	0.08%	99.84%	0.19%	99.53%
Overall $\mu + 2 \sigma$	\$1,322,483	0.02%	99.86%	0.08%	99.61%
<= \$2M	\$2,000,000	0.05%	99.91%	0.12%	99.73%
<= \$7.5M	\$7,500,000	0.07%	99.98%	0.19%	99.93%
M/WBE Max	\$12,583,227	0.02%	100.00%	0.05%	99.98%
<= \$15M	\$15,000,000	0.00%	100.00%	0.01%	99.98%
Overall Max	\$138,072,773			0.02%	100.00%

Graphical characteristics of the distributions of Goods or Commodities awards to M/WBEs versus the full sector appear in **Figure 3-8**.

- ◆ Each color represents a graphical representation for three categories: M/WBE awards, all contract awards, and thresholds with no M/WBE participation. For example, in this sector, nearly 100 percent of M/WBE contracts (99.84%) and the full universe of contracts (99.53%) fall at or below \$1 million.
- ◆ M/WBEs participate in contracts ranging up to \$12.6 million, which falls among the top 0.02 percent of awards in this sector.

FIGURE 3-8
 GRAPHICAL DEPICTIONS OF **GOODS OR COMMODITIES** CONTRACT AWARDS TO M/WBES
 VS. AWARDS TO ALL VENDORS



3.4.5 UTILIZATION CONCLUSIONS

The utilization analysis shows that M/WBE firms are utilized at substantially lower rates than their non-M/WBE counterparts. Overall, 10.36 percent of the City’s awards went to M/WBE firms, while 89.64 percent went to non-M/WBE firms.

Nonetheless, analysis of contract thresholds showed that M/WBE firms were utilized in nearly all contract thresholds.

**CHAPTER 4: Availability and Disparity
Analyses**

DISPARITY STUDY

City of New York



4.1 INTRODUCTION

This chapter presents the results of MGT’s analyses regarding **availability** and **disparity**. Availability is a measure of the numbers and proportions of vendors willing and able to work with an agency, while disparity is an observed statistically significant difference between the utilization of minority- and women-owned firms (as discussed in **Chapter 3**) relative to their respective availability. Consistent with prior chapters, this analysis focuses on awards in the procurement categories of Architecture & Engineering, Construction, Professional Services, Standardized Services, and Goods or Commodities sectors between July 1, 2006 and June 30, 2015.

CHAPTER SECTIONS



- 4.1 Introduction
- 4.2 Availability Estimations
- 4.3 Disparity Analyses and Significance Testing
- 4.4 Conclusions

4.2 AVAILABILITY ESTIMATIONS

Included in the sections that follow are descriptions of the approach and methodology used by MGT to estimate availability followed by the results of the data collection and estimation process.

4.2.1 AVAILABILITY METHODOLOGY

As noted in **Chapter 1**, the Supreme Court stated in *Croson* that,

“Where there is a significant statistical disparity between the number of qualified minority contractors willing and able to perform a particular service and the number of such contractors actually engaged by the locality or the locality’s prime contractors, an inference of discriminatory exclusion could arise.”

MGT will follow a market-based approach to determine the availability of M/WBEs. Due to the statistical limitations of deriving a vendor’s ability, MGT will concentrate on the willingness of the vendors and not adjust availability due to capacity.

- ◆ **Willing** is reasonably presumed via the vendors’ active pursuit of registration to work with any public (government) agency, which drives the scope of identification for the sources of available firms considered.
- ◆ **Able**, or capability to perform work, is more loosely defined due to two obscuring factors: (1) the scalable nature of firms, who may reasonably add capacity to handle jobs beyond previous performance, and (2) the inherent concern that discrimination may have influenced the historic or existing scale of operation of the firms within the market. Therefore, the measure of “ability” used to cull the universe of available vendors is that they have a presence within the defined market area.

Post-*Croscon* case law has not prescribed a single, particular approach to deriving vendor availability, and agencies have used a variety of means to estimate pools of available vendors that have withstood legal scrutiny; however, among the array of methods utilized, what is known as a “custom census” has received favorable endorsement. A custom census is characterized as a survey of a representative sample of firms offering the procured goods and services within an organization’s relevant market area to determine the interest and ability of the prospective *universe* of vendors in working with the focus organization.

In its 2010 *Report 644: Guidelines for Conducting a Disparity and Availability Study for the Federal DBE Program*, the National Cooperative Highway Research Program (NCHRP) asserted that “the ‘custom census’ approach to measuring DBE availability, when properly executed, is superior to the other methods,” for reasons including:

- ◆ It assumes the *broadest possible view* of the prospective universe of vendors.
- ◆ Closely related to the above, it inherently takes an *inclusive (“remedial”) approach* to the pool of vendors, including consideration of potentially disenfranchised firms via examination of the full market of potential vendors via independent resources or repositories of vendor information – not shaped or influenced by the focus organization’s or other government organizations’ historic operations or behaviors.
- ◆ It has consistently withstood legal scrutiny, having been upheld “by every court that has reviewed it.”⁵²

MGT’s data assessment and evaluation of alternative methods for measuring the numbers of firms of the types and classifications available to work with the City confirmed that a custom census of firms in the relevant market area would provide the most accurate representation of available firms. The custom census approach in this instance required development of representative samples of firms within each of the five procurement categories identified for the study, each of which had to cover the defined 13-county geographic boundaries of the relevant market area.

First, an intensive examination of the City’s procurements was required to define the appropriate characteristics of the universe of prospective vendors, in terms of the types of goods and services offered. City procurements, categorized by National Institute of Governmental Purchasing (NIGP) Commodity/Service codes, had to be mapped to North American Industry Classification System (NAICS) codes that Dun & Bradstreet uses to classify firms’ primary lines of business. These industry selections were then used to establish weighting criteria to be used in random selections of vendors to be surveyed. Target response thresholds were established for each industry subsector to ensure a 95 percent confidence interval and +/-5 percent margin of error for findings. Second, a survey was designed and administered to sampled firms by telephone and email to (1) determine and/or validate the race, ethnicity, and gender of ownership as well as (2) to elicit these representative firms’ interest in working with the City.

⁵² Transportation Research Board of the National Academies, National Cooperative Highway Research Program Report 644, *Guidelines for Conducting a Disparity and Availability Study for the Federal DBE Program* (2010), page 33

Results of the survey were then extrapolated to the full scale of the applicable universe to arrive at an estimation of available firms by ethnicity/gender classification and procurement category.

4.2.2 AVAILABILITY ANALYSIS

Following the methodology prescribed in the previous section, MGT derived estimates for proportions of available firms for the racial, ethnic, and gender ownership classes and five defined procurement categories. Within each table portraying availability, as in previous sections, the acronym “WBE” refers to Women-Owned Business Enterprises and includes all women-owned businesses, independent of race or ethnicity, while “M/WBE” refers to Minority- or Women-Owned Business Enterprises and includes all racial or ethnic minority and women-owned firms.

Table 4-1 presents availability estimates spanning across all procurement categories, in aggregate. We observe that:

- ◆ African American-owned firms represented 11.30 percent of available vendors;
- ◆ Asian American-owned firms represented 9.93 percent of available vendors;
- ◆ Hispanic American-owned firms represented 9.58 percent of available vendors;
- ◆ Native American-owned firms represented 0.85 percent of available vendors;
- ◆ Women-owned firms represented 32.29 percent of available vendors; and
- ◆ M/WBEs represented 50.69 percent of available vendors.

TABLE 4-1
ESTIMATION OF AVAILABLE FIRMS, ALL PROCUREMENT CATEGORIES

BUSINESS OWNERSHIP CLASSIFICATION	% OF AVAILABLE FIRMS
African American Male	5.85%
African American Female	5.45%
AFRICAN AMERICAN	11.30%
Asian American Male	5.67%
Asian American Female	4.26%
ASIAN AMERICAN	9.93%
Hispanic American Male	6.28%
Hispanic American Female	3.30%
HISPANIC AMERICAN	9.58%
Native American Male	0.60%
Native American Female	0.25%
NATIVE AMERICAN	0.85%
TOTAL MBE	31.67%
NONMINORITY FEMALE	19.02%
TOTAL WBE	32.29%
TOTAL M/WBE	50.69%
NON-M/WBE	49.31%
TOTAL	100.00%

Within the **Architecture & Engineering** category (**Table 4-2**), availability estimates are as follows:

- ◆ African American-owned firms represented 7.54 percent of available vendors;
- ◆ Asian American-owned firms represented 7.33 percent of available vendors;
- ◆ Hispanic American-owned firms represented 11.74 percent of available vendors;
- ◆ Native American-owned firms represented 0.32 percent of available vendors;
- ◆ Women-owned firms represented 35.17 percent of available vendors; and
- ◆ M/WBEs represented 51.84 percent of available vendors.

TABLE 4-2
ESTIMATION OF AVAILABLE FIRMS, **ARCHITECTURE & ENGINEERING**

BUSINESS OWNERSHIP CLASSIFICATION	% OF AVAILABLE FIRMS
African American Male	4.48%
African American Female	3.06%
AFRICAN AMERICAN	7.54%
Asian American Male	4.73%
Asian American Female	2.59%
ASIAN AMERICAN	7.33%
Hispanic American Male	7.46%
Hispanic American Female	4.28%
HISPANIC AMERICAN	11.74%
Native American Male	0.00%
Native American Female	0.32%
NATIVE AMERICAN	0.32%
TOTAL MBE	26.92%
NONMINORITY FEMALE	24.92%
TOTAL WBE	35.17%
TOTAL M/WBE	51.84%
NON-M/WBE	48.16%
TOTAL	100.00%

In the **Construction** category, we observe the following availability proportions (**Table 4-3**):

- ◆ African American-owned firms represented 12.00 percent of available vendors;
- ◆ Asian American-owned firms represented 11.10 percent of available vendors;
- ◆ Hispanic American-owned firms represented 17.95 percent of available vendors;
- ◆ Native American-owned firms represented 0.56 percent of available vendors;
- ◆ Women-owned firms represented 25.66 percent of available vendors; and
- ◆ M/WBEs represented 54.80 percent of available vendors.

TABLE 4-3
ESTIMATION OF AVAILABLE FIRMS, **CONSTRUCTION**

BUSINESS OWNERSHIP CLASSIFICATION	% OF AVAILABLE FIRMS
African American Male	8.97%
African American Female	3.03%
AFRICAN AMERICAN	12.00%
Asian American Male	7.41%
Asian American Female	3.69%
ASIAN AMERICAN	11.10%
Hispanic American Male	12.28%
Hispanic American Female	5.67%
HISPANIC AMERICAN	17.95%
Native American Male	0.47%
Native American Female	0.09%
NATIVE AMERICAN	0.56%
TOTAL MBE	41.61%
NONMINORITY FEMALE	13.19%
TOTAL WBE	25.66%
TOTAL M/WBE	54.80%
NON-M/WBE	45.20%
TOTAL	100.00%

In **Professional Services (Table 4-4)**, availability estimates were as follows:

- ◆ African American-owned firms represented 12.15 percent of available vendors;
- ◆ Asian American-owned firms represented 9.56 percent of available vendors;
- ◆ Hispanic American-owned firms represented 8.78 percent of available vendors;
- ◆ Native American-owned firms represented 0.68 percent of available vendors;
- ◆ Women-owned firms represented 36.78 percent of available vendors; and
- ◆ M/WBEs represented 53.55 percent of available vendors.

TABLE 4-4
ESTIMATION OF AVAILABLE FIRMS, **PROFESSIONAL SERVICES**

BUSINESS OWNERSHIP CLASSIFICATION	% OF AVAILABLE FIRMS
African American Male	5.33%
African American Female	6.82%
AFRICAN AMERICAN	12.15%
Asian American Male	5.13%
Asian American Female	4.43%
ASIAN AMERICAN	9.56%
Hispanic American Male	5.63%
Hispanic American Female	3.15%
HISPANIC AMERICAN	8.78%
Native American Male	0.68%
Native American Female	0.00%
NATIVE AMERICAN	0.68%
TOTAL MBE	31.16%
NONMINORITY FEMALE	22.39%
TOTAL WBE	36.78%
TOTAL M/WBE	53.55%
NON-M/WBE	46.45%
TOTAL	100.00%

In **Standardized Services (Table 4-5)**, availability estimates consisted of:

- ◆ African American-owned firms represented 14.32 percent of available vendors;
- ◆ Asian American-owned firms represented 9.88 percent of available vendors;
- ◆ Hispanic American-owned firms represented 10.20 percent of available vendors;
- ◆ Native American-owned firms represented 0.03 percent of available vendors;
- ◆ Women-owned firms represented 29.26 percent of available vendors; and
- ◆ M/WBEs represented 50.33 percent of available vendors.

TABLE 4-5
ESTIMATION OF AVAILABLE FIRMS, **STANDARDIZED SERVICES**

BUSINESS OWNERSHIP CLASSIFICATION	% OF AVAILABLE FIRMS
African American Male	7.24%
African American Female	7.07%
AFRICAN AMERICAN	14.32%
Asian American Male	6.35%
Asian American Female	3.54%
ASIAN AMERICAN	9.88%
Hispanic American Male	7.45%
Hispanic American Female	2.75%
HISPANIC AMERICAN	10.20%
Native American Male	0.03%
Native American Female	0.00%
NATIVE AMERICAN	0.03%
TOTAL MBE	34.43%
NONMINORITY FEMALE	15.90%
TOTAL WBE	29.26%
TOTAL M/WBE	50.33%
NON-M/WBE	49.67%
TOTAL	100.00%

Finally, in the **Goods or Commodities** sector (**Table 4-6**), availability estimates included:

- ◆ African American-owned firms represented 5.94 percent of available vendors;
- ◆ Asian American-owned firms represented 10.59 percent of available vendors;
- ◆ Hispanic American-owned firms represented 7.07 percent of available vendors;
- ◆ Native American-owned firms represented 2.44 percent of available vendors;
- ◆ Women-owned firms represented 30.51 percent of available vendors; and
- ◆ M/WBEs represented 44.71 percent of available vendors.

TABLE 4-6
ESTIMATION OF AVAILABLE FIRMS, **GOODS OR COMMODITIES**

BUSINESS OWNERSHIP CLASSIFICATION	% OF AVAILABLE FIRMS
African American Male	3.98%
African American Female	1.96%
AFRICAN AMERICAN	5.94%
Asian American Male	5.20%
Asian American Female	5.39%
ASIAN AMERICAN	10.59%
Hispanic American Male	3.66%
Hispanic American Female	3.42%
HISPANIC AMERICAN	7.07%
Native American Male	1.36%
Native American Female	1.08%
NATIVE AMERICAN	2.44%
TOTAL MBE	26.05%
NONMINORITY FEMALE	18.66%
TOTAL WBE	30.51%
TOTAL M/WBE	44.71%
NON-M/WBE	55.29%
TOTAL	100.00%

4.3 DISPARITY ANALYSES AND SIGNIFICANCE TESTING

Building on our understanding of the City’s vendor utilization (**Chapter 3**) and the availability estimates presented in the previous section of this chapter (**Section 4.2**), we can use this information to identify potential disparities in City’s procurement. A brief summary of the approach is provided in **Section 4.3.1** followed by the results of these disparity calculations and associated statistical significance testing in **Section 4.3.2**.

4.3.1 DISPARITY ANALYSIS METHODOLOGY

Disparity, in this context, is the analysis of the differences between the utilization of minority- and women-owned firms (as presented in **Chapter 3**) and the respective availability of those firms (**Section 4.2**). Thus, MGT calculated disparity indices to examine whether minority- and women-owned firms received a proportional share of dollars based on the respective availability of minority- and women-owned firms located in the study’s defined relevant market area (as presented in **Chapter 3**).

MGT’s disparity index methodology yields a value that is easily calculable, understandable in its interpretation, and universally comparable such that a disparity in utilization within minority- and women-owned firms can be assessed with reference to the utilization of nonminority- and male-owned firms.

The **disparity index** is a simple proportional calculation that divides utilization rates (percent of dollars awarded to firms by class) by their associated availability (percent of firms available to work, within that same class) and multiplies this value by 100. Thus, a disparity index value of zero (0.00) indicates absolutely no utilization and, therefore, absolute disparity. A disparity index of 100 indicates that utilization is perfectly proportionate to availability, therefore indicating the absence of disparity (that is, all things being equal). Alternately, firms are considered **underutilized** if the disparity indices are less than 100, and **overutilized** if the indices are above 100.

$$\text{Disparity Index} = \frac{\%U_{m,p_i}}{\%A_{m,p_i}} \times 100$$

U_{m,p_i} = utilization of minorities- and women-owned firms_i for procurement_i

A_{m,p_i} = availability of minorities- and women-owned firms_i for procurement_i

Since there is no standardized measurement to evaluate the levels of underutilization or overutilization within a procurement context, MGT’s methodology to measure disparity, if disparity is found, is based on the Equal Employment Opportunity Commission’s (EEOC) “80 percent rule.”⁵³ In the employment discrimination framework, an employment disparity index below 80 indicates a “substantial disparity.” The

⁵³ Equal Employment Opportunity Commission, *Uniform Guidelines on Employee Selection Procedures*, Section 4, Part D, “Adverse impact and the ‘four-fifths rule.’”

Supreme Court has accepted the use of the “80 percent rule” in *Connecticut v. Teal* (*Teal*), 457 U.S. 440 (1982).⁵⁴ Therefore, following a similar pattern, firms are considered substantially underutilized (substantial disparity) if the disparity indices are 80 or less.

Standard deviation tests or testing for **statistical significance**, in this context, is the analysis to determine the significance of the difference between the utilization of minority- and women-owned firms and the availability of those firms. This analysis can determine whether the disparities are substantial or statistically significant, which lends further statistical support to a finding of discrimination. The following explains MGT’s methodology.

Standard deviation measures the probability that a result is a random deviation from a predicted result, where the greater the number of standard deviations, the lower the probability the result is a random one. The accepted standard used by Courts in disparity testing has been two standard deviations. That is, if there is a result of falls within two standard deviations, then one can assume that the results are nonsignificant, or that no disparity has been confidently established.

Regarding the use of statistical significance in the disparity study context the National Cooperative Highway Research Program Report 644⁵⁵ notes that:

- ♦ “. . . for statistical disparities to be taken as legally dispositive in the discrimination context, they should be (a) statistically significant and (b) “substantively” significant. Substantive significance is taken to mean, for example, a DBE utilization measure that is less than or equal to 80% of the corresponding DBE availability measure.”
- ♦ “In discrimination cases, the courts have usually required p-values of 5% or less to establish statistical significance in a two-sided case.”

Statistical Significance Testing

$$t = \frac{u - a}{\sqrt{\frac{a * (1 - a) * \sum c_i^2}{(\sum c_i)^2}}}$$

t = the t-statistic

u = the ratio of minorities- and women-owned firms’ dollars compared to total dollars
a = the ratio of M/W/DBE firms to all firms
c_i = the dollar amount.

Note that p-values are used to determine whether the differences between two populations feature legitimate differences (that would be sustained if we continued to collect more observations), or if the variation between them is simply a product of normal random variation between observations that would be washed out if we collected more data. A p-value of less than 0.05 suggests it is highly unlikely that the differences between two groups are just driven by chance. The use of the t-test to calculate p-values for disparity indices was approved by the Fourth Circuit in *H.B. Rowe v. Tippett*, 615 F.3d 233, 244-45 (4th Cir 2010).

Thus, MGT applies two major tests to determine statistical significance: (1) whether the disparity index is less than or equal to 80 percent of respective M/WBE availability, which is labeled “substantial

⁵⁴ In *Teal* and other affirmative action cases, the terms “adverse impact,” “disparate impact,” and “discriminatory impact” are used interchangeably to characterize values of 80 and below.

⁵⁵ Transportation Research Board of the National Academies, National Cooperative Highway Research Program Report 644, *Guidelines for Conducting a Disparity and Availability Study for the Federal DBE Program* (2010), pages 49-50.

disparity” and (2) whether the disparity index passes the t-test determination of statistical significance. In cases where one, or especially both, measures hold true, a remedy is typically deemed to be justifiable by courts, making these results critical outcomes of the subsequent analyses.

4.3.2 DISPARITY ANALYSES AND STATISTICAL SIGNIFICANCE

Included in this section are inputs and calculations of disparity indices and significance testing for each of the procurement categories and ownership classifications by race, ethnicity, and gender. Analysis of disparities across all procurement categories in **Table 4-7** reveals:

- ♦ African American-owned firms were underutilized, with a substantial and statistically significant disparity index of 12.95;
- ♦ Asian American-owned firms were underutilized, with a substantial and statistically significant disparity index of 31.61;
- ♦ Hispanic American-owned firms were underutilized, with a substantial and statistically significant disparity index of 16.19;
- ♦ Native American-owned firms were underutilized, with a substantial and statistically significant disparity index of 0.41;
- ♦ Women-owned firms (WBEs) were underutilized, with a substantial and statistically significant disparity index of 15.23; and
- ♦ M/WBEs firms were underutilized, with a substantial and statistically significant disparity index of 20.43.

TABLE 4-7
DISPARITY INDICES AND SIGNIFICANCE TESTING, ALL PROCUREMENT CATEGORIES

Ethnic/Gender Classification	Utilization	Availability	Disparity Index	Disparity Impact	Statistical Significance	Disparity Conclusion
African American Male	1.26%	5.85%	21.53	Underutilization	Yes	Disparity
African American Female	0.20%	5.45%	3.75	Underutilization	Yes	Disparity
AFRICAN AMERICAN	1.46%	11.30%	12.95	Underutilization	Yes	Disparity
Asian American Male	2.88%	5.67%	50.82	Underutilization	Yes	Disparity
Asian American Female	0.26%	4.26%	6.04	Underutilization	Yes	Disparity
ASIAN AMERICAN	3.14%	9.93%	31.61	Underutilization	Yes	Disparity
Hispanic American Male	1.30%	6.28%	20.62	Underutilization	Yes	Disparity
Hispanic American Female	0.26%	3.30%	7.77	Underutilization	Yes	Disparity
HISPANIC AMERICAN	1.55%	9.58%	16.19	Underutilization	Yes	Disparity
Native American Male	0.00%	0.60%	0.59	Underutilization	Yes	Disparity
Native American Female	0.00%	0.25%	0.00	Underutilization	Yes	Disparity
NATIVE AMERICAN	0.00%	0.85%	0.41	Underutilization	Yes	Disparity
TOTAL MBE	6.16%	31.67%	19.45	Underutilization	Yes	Disparity
NONMINORITY FEMALE	4.20%	19.02%	22.08	Underutilization	Yes	Disparity
TOTAL WBE	4.92%	32.29%	15.23	Underutilization	Yes	Disparity
TOTAL M/WBE	10.36%	50.69%	20.43	Underutilization	Yes	Disparity
NON-M/WBE	89.64%	49.31%	181.79	Overutilization	Yes	No Disparity

Note: Disparity index values may vary slightly from calculations of depicted figures due to rounding of presented levels of utilization and availability.

The calculation of disparity indices and significance testing for the **Architecture & Engineering** procurement category are depicted in **Table 4-8**. Relevant findings include:

- ◆ African American-owned firms were underutilized, with a substantial and statistically significant disparity index of 1.52;
- ◆ Asian American-owned firms were underutilized, with a substantial and statistically significant disparity index of 37.94;
- ◆ Hispanic American-owned firms were underutilized, with a substantial and statistically significant disparity index of 2.63;
- ◆ Native American-owned firms were underutilized, with a substantial and statistically significant disparity index of 0.00;
- ◆ Women-owned firms (WBEs) were underutilized, with a substantial and statistically significant disparity index of 3.30; and
- ◆ M/WBEs firms were underutilized, with a substantial and statistically significant disparity index of 7.78.

TABLE 4-8
DISPARITY INDICES AND SIGNIFICANCE TESTING, ARCHITECTURE & ENGINEERING

Ethnic/Gender Classification	Utilization	Availability	Disparity Index	Disparity Impact	Statistical Significance	Disparity Conclusion
African American Male	0.11%	4.48%	2.35	Underutilization	Yes	Disparity
African American Female	0.01%	3.06%	0.30	Underutilization	Yes	Disparity
AFRICAN AMERICAN	0.11%	7.54%	1.52	Underutilization	Yes	Disparity
Asian American Male	2.47%	4.73%	52.28	Underutilization	Yes	Disparity
Asian American Female	0.30%	2.59%	11.76	Underutilization	Yes	Disparity
ASIAN AMERICAN	2.78%	7.33%	37.94	Underutilization	Yes	Disparity
Hispanic American Male	0.29%	7.46%	3.94	Underutilization	Yes	Disparity
Hispanic American Female	0.01%	4.28%	0.33	Underutilization	Yes	Disparity
HISPANIC AMERICAN	0.31%	11.74%	2.63	Underutilization	Yes	Disparity
Native American Male	0.00%	0.00%	-	n/a	n/a	n/a
Native American Female	0.00%	0.32%	0.00	Underutilization	Yes	Disparity
NATIVE AMERICAN	0.00%	0.32%	0.00	Underutilization	Yes	Disparity
TOTAL MBE	3.20%	26.92%	11.89	Underutilization	Yes	Disparity
NONMINORITY FEMALE	0.83%	24.92%	3.34	Underutilization	Yes	Disparity
TOTAL WBE	1.16%	35.17%	3.30	Underutilization	Yes	Disparity
TOTAL M/WBE	4.03%	51.84%	7.78	Underutilization	Yes	Disparity
NON-M/WBE	95.97%	48.16%	199.28	Overutilization	Yes	No Disparity

Note: Disparity index values may vary slightly from calculations of depicted figures due to rounding of presented levels of utilization and availability.

n/a – Disparity assessment not applicable where availability estimates are of negligible scale.

Disparity indices and significance testing for **Construction** appear in **Table 5-9**. Noteworthy observations include:

- ♦ African American-owned firms were underutilized, with a substantial and statistically significant disparity index of 29.06;
- ♦ Asian American-owned firms were underutilized, with a substantial and statistically significant disparity index of 44.87;
- ♦ Hispanic American-owned firms were underutilized, with a substantial and statistically significant disparity index of 18.52;
- ♦ Native American-owned firms were underutilized, with a substantial and statistically significant disparity index of 2.16;
- ♦ Women-owned firms (WBEs) were underutilized, with a substantial and statistically significant disparity index of 33.67; and
- ♦ M/WBEs firms were underutilized, with a substantial and statistically significant disparity index of 35.50.

TABLE 4-9
DISPARITY INDICES AND SIGNIFICANCE TESTING, **CONSTRUCTION**

Ethnic/Gender Classification	Utilization	Availability	Disparity Index	Disparity Impact	Statistical Significance	Disparity Conclusion
African American Male	3.36%	8.97%	37.48	Underutilization	Yes	Disparity
African American Female	0.13%	3.03%	4.15	Underutilization	Yes	Disparity
AFRICAN AMERICAN	3.49%	12.00%	29.06	Underutilization	Yes	Disparity
Asian American Male	4.69%	7.41%	63.28	Underutilization	Yes	Disparity
Asian American Female	0.29%	3.69%	7.83	Underutilization	Yes	Disparity
ASIAN AMERICAN	4.98%	11.10%	44.87	Underutilization	Yes	Disparity
Hispanic American Male	2.74%	12.28%	22.35	Underutilization	Yes	Disparity
Hispanic American Female	0.58%	5.67%	10.21	Underutilization	Yes	Disparity
HISPANIC AMERICAN	3.32%	17.95%	18.52	Underutilization	Yes	Disparity
Native American Male	0.01%	0.47%	2.56	Underutilization	Yes	Disparity
Native American Female	0.00%	0.09%	0.00	Underutilization	No	Disparity*
NATIVE AMERICAN	0.01%	0.56%	2.16	Underutilization	Yes	Disparity
TOTAL MBE	11.80%	41.61%	28.37	Underutilization	Yes	Disparity
NONMINORITY FEMALE	7.65%	13.19%	57.99	Underutilization	Yes	Disparity
TOTAL WBE	8.64%	25.66%	33.67	Underutilization	Yes	Disparity
TOTAL M/WBE	19.45%	54.80%	35.50	Underutilization	Yes	Disparity
NON-M/WBE	80.55%	45.20%	178.21	Overutilization	Yes	No Disparity

Note: Disparity index values may vary slightly from calculations of depicted figures due to rounding of presented levels of utilization and availability.

*Indicates substantial disparity (< 80 Disparity Index) but lack of statistical significance due to relatively small size/share of population.

Disparity indices and significance testing for the **Professional Services** sector are presented in **Table 4-10**. Some findings include that:

- ♦ African American-owned firms were underutilized, with a substantial and statistically significant disparity index of 7.25;
- ♦ Asian American-owned firms were underutilized, with a substantial and statistically significant disparity index of 45.33;
- ♦ Hispanic American-owned firms were underutilized, with a substantial and statistically significant disparity index of 9.68;
- ♦ Native American-owned firms were underutilized, with a substantial and statistically significant disparity index of 0.00;
- ♦ Women-owned firms (WBEs) were underutilized, with a substantial and statistically significant disparity index of 7.93; and
- ♦ M/WBEs firms were underutilized, with a substantial and statistically significant disparity index of 15.39.

TABLE 4-10
DISPARITY INDICES AND SIGNIFICANCE TESTING, **PROFESSIONAL SERVICES**

Ethnic/Gender Classification	Utilization	Availability	Disparity Index	Disparity Impact	Statistical Significance	Disparity Conclusion
African American Male	0.65%	5.33%	12.13	Underutilization	Yes	Disparity
African American Female	0.23%	6.82%	3.44	Underutilization	Yes	Disparity
AFRICAN AMERICAN	0.88%	12.15%	7.25	Underutilization	Yes	Disparity
Asian American Male	4.03%	5.13%	78.46	Underutilization	Yes	Disparity
Asian American Female	0.31%	4.43%	6.90	Underutilization	Yes	Disparity
ASIAN AMERICAN	4.33%	9.56%	45.33	Underutilization	Yes	Disparity
Hispanic American Male	0.65%	5.63%	11.56	Underutilization	Yes	Disparity
Hispanic American Female	0.20%	3.15%	6.32	Underutilization	Yes	Disparity
HISPANIC AMERICAN	0.85%	8.78%	9.68	Underutilization	Yes	Disparity
Native American Male	0.00%	0.68%	0.00	Underutilization	Yes	Disparity
Native American Female	0.00%	0.00%	-	n/a	n/a	n/a
NATIVE AMERICAN	0.00%	0.68%	0.00	Underutilization	Yes	Disparity
TOTAL MBE	6.06%	31.16%	19.46	Underutilization	Yes	Disparity
NONMINORITY FEMALE	2.18%	22.39%	9.73	Underutilization	Yes	Disparity
TOTAL WBE	2.92%	36.78%	7.93	Underutilization	Yes	Disparity
TOTAL M/WBE	8.24%	53.55%	15.39	Underutilization	Yes	Disparity
NON-M/WBE	91.76%	46.45%	197.56	Overutilization	Yes	No Disparity

Note: Disparity index values may vary slightly from calculations of depicted figures due to rounding of presented levels of utilization and availability.

n/a – Disparity assessment not applicable where availability estimates are of negligible scale.

Table 4-11 presents disparity indices and significance testing for the **Standardized Services** sector.

- ♦ African American-owned firms were underutilized, with a substantial and statistically significant disparity index of 7.14;
- ♦ Asian American-owned firms were underutilized, with a substantial and statistically significant disparity index of 11.92;
- ♦ Hispanic American-owned firms were underutilized, with a substantial and statistically significant disparity index of 10.86;
- ♦ Native American-owned firms were underutilized, with a substantial disparity index of 1.88;
- ♦ Women-owned firms (WBEs) were underutilized, with a substantial and statistically significant disparity index of 15.26; and
- ♦ M/WBEs firms were underutilized, with a substantial and statistically significant disparity index of 14.12.

TABLE 4-11
DISPARITY INDICES AND SIGNIFICANCE TESTING, **STANDARDIZED SERVICES**

Ethnic/Gender Classification	Utilization	Availability	Disparity Index	Disparity Impact	Statistical Significance	Disparity Conclusion
African American Male	0.61%	7.24%	8.45	Underutilization	Yes	Disparity
African American Female	0.41%	7.07%	5.80	Underutilization	Yes	Disparity
AFRICAN AMERICAN	1.02%	14.32%	7.14	Underutilization	Yes	Disparity
Asian American Male	1.09%	6.35%	17.18	Underutilization	Yes	Disparity
Asian American Female	0.09%	3.54%	2.49	Underutilization	Yes	Disparity
ASIAN AMERICAN	1.18%	9.88%	11.92	Underutilization	Yes	Disparity
Hispanic American Male	0.94%	7.45%	12.65	Underutilization	Yes	Disparity
Hispanic American Female	0.17%	2.75%	6.02	Underutilization	Yes	Disparity
HISPANIC AMERICAN	1.11%	10.20%	10.86	Underutilization	Yes	Disparity
Native American Male	0.00%	0.03%	1.88	Underutilization	No	Disparity*
Native American Female	0.00%	0.00%	-	n/a	n/a	n/a
NATIVE AMERICAN	0.00%	0.03%	1.88	Underutilization	No	Disparity*
TOTAL MBE	3.31%	34.43%	9.61	Underutilization	Yes	Disparity
NONMINORITY FEMALE	3.80%	15.90%	23.90	Underutilization	Yes	Disparity
TOTAL WBE	4.46%	29.26%	15.26	Underutilization	Yes	Disparity
TOTAL M/WBE	7.11%	50.33%	14.12	Underutilization	Yes	Disparity
NON-M/WBE	92.89%	49.67%	187.03	Overutilization	Yes	No Disparity

Note: Disparity index values may vary slightly from calculations of depicted figures due to rounding of presented levels of utilization and availability.

n/a – Disparity assessment not applicable where availability estimates are of negligible scale.

*Indicates substantial disparity (< 80 Disparity Index) but lack of statistical significance due to relatively small size/share of population.

Depicted in **Table 4-12** are the disparity indices and results of significance testing for the **Goods or Commodities** sector.

- ♦ African American-owned firms were underutilized, with a substantial and statistically significant disparity index of 10.66;
- ♦ Asian American-owned firms were underutilized, with a substantial and statistically significant disparity index of 16.03;
- ♦ Hispanic American-owned firms were underutilized, with a substantial and statistically significant disparity index of 20.85;
- ♦ Native American-owned firms were underutilized, with a substantial and statistically significant disparity index of 0.02;
- ♦ Women-owned firms (WBEs) were underutilized, with a substantial and statistically significant disparity index of 21.46; and
- ♦ M/WBEs firms were underutilized, with a substantial and statistically significant disparity index of 21.44.

TABLE 4-12
DISPARITY INDICES AND SIGNIFICANCE TESTING, **GOODS OR COMMODITIES**

Ethnic/Gender Classification	Utilization	Availability	Disparity Index	Disparity Impact	Statistical Significance	Disparity Conclusion
African American Male	0.48%	3.98%	12.14	Underutilization	Yes	Disparity
African American Female	0.15%	1.96%	7.65	Underutilization	Yes	Disparity
AFRICAN AMERICAN	0.63%	5.94%	10.66	Underutilization	Yes	Disparity
Asian American Male	1.24%	5.20%	23.84	Underutilization	Yes	Disparity
Asian American Female	0.46%	5.39%	8.49	Underutilization	Yes	Disparity
ASIAN AMERICAN	1.70%	10.59%	16.03	Underutilization	Yes	Disparity
Hispanic American Male	1.32%	3.66%	36.00	Underutilization	Yes	Disparity
Hispanic American Female	0.16%	3.42%	4.66	Underutilization	Yes	Disparity
HISPANIC AMERICAN	1.48%	7.07%	20.85	Underutilization	Yes	Disparity
Native American Male	0.00%	1.36%	0.04	Underutilization	Yes	Disparity
Native American Female	0.00%	1.08%	0.00	Underutilization	Yes	Disparity
NATIVE AMERICAN	0.00%	2.44%	0.02	Underutilization	Yes	Disparity
TOTAL MBE	3.81%	26.05%	14.61	Underutilization	Yes	Disparity
NONMINORITY FEMALE	5.78%	18.66%	30.98	Underutilization	Yes	Disparity
TOTAL WBE	6.55%	30.51%	21.46	Underutilization	Yes	Disparity
TOTAL M/WBE	9.59%	44.71%	21.44	Underutilization	Yes	Disparity
NON-M/WBE	90.41%	55.29%	163.52	Overutilization	Yes	No Disparity

Note: Disparity index values may vary slightly from calculations of depicted figures due to rounding of presented levels of utilization and availability.

4.4 CONCLUSIONS

The calculations of availability and disparity within this chapter and the preceding depiction of utilization serve as the foundation for the future of the City's M/WBE program. These analyses provide the quantitative legal justification for any current or future remedies to assist M/WBE enterprises within the market. As summarized in the table below (**Table 4-13**), disparities between utilization and availability have been observed for all procurement and M/WBE categories included within the scope of the study,

both in terms of the order of magnitude (Disparity Indices less than or equal to 80) and statistical significance in all but one case – Native Americans in Standardized Services, where the population was too small to determine statistical significance. However, the Disparity Index value of 1.88 is so low that the statistical significance is less essential to the confirmation of the gap that exists between utilization and availability.

TABLE 4-13
DISPARITY ANALYSIS SUMMARY

Procurement Category	African American	Asian American	Hispanic American	Native American	WBEs	M/WBEs
Architecture & Engineering	Disparity	Disparity	Disparity	Disparity	Disparity	Disparity
Construction	Disparity	Disparity	Disparity	Disparity	Disparity	Disparity
Professional Services	Disparity	Disparity	Disparity	Disparity	Disparity	Disparity
Standardized Services	Disparity	Disparity	Disparity	Disparity*	Disparity	Disparity
Goods or Commodities	Disparity	Disparity	Disparity	Disparity	Disparity	Disparity

*Indicates substantial disparity (< 80 Disparity Index) but lack of statistical significance due to relatively small size/share of population.

CHAPTER 5: Anecdotal Analysis

DISPARITY STUDY

City of New York



5.1 INTRODUCTION

This chapter examines anecdotal evidence of conditions and obstacles faced by M/WBE firms in the study market area in their experiences working with the City of New York (the City), the City's prime contractors, and the private sector. The collection and analysis of anecdotal data was focused on firms registered to do business with the City, and helps to explain and provide context for the quantitative data analyses found in **Chapter 3, Market Area and Utilization Analyses** and **Chapter 4, Availability and Disparity Analyses**. In conjunction with the quantitative data, MGT also was able to draw inferences from the anecdotal data as to the prevalence of obstacles perceived as limiting the participation of M/WBEs and other firms in the City's procurement transactions.

Unlike conclusions derived from other types of analysis in this report, the conclusions derived from anecdotal analysis do not rely solely on quantitative data. Rather, the analysis in this chapter utilizes qualitative data to describe the context of the examined social, political, and economic environment in which all businesses and other relevant entities applicable to the Study operate. Anecdotal comments in this chapter detail the perceptions and opinions of individuals, and the evidentiary weight of these opinions depends on how much they are corroborated by statements of others and the quantitative data that has been compiled to substantiate these perceptions.

The collective anecdotal activities gathered input from over 1,600 business owners or representatives regarding their opinions and perceptions of their experiences working with the City, or on City projects as subcontractors.

CHAPTER SECTIONS



- 5.1 Introduction
- 5.2 Methodology
- 5.3 Demographics
- 5.4 Findings
- 5.5 Suggested Remedies from Anecdotal Participants
- 5.6 Stakeholder Interviews
- 5.7 Conclusions

5.2 METHODOLOGY

The blueprint for collecting and analyzing anecdotal information for this Study was provided by the U.S. Supreme Court in *City of Richmond v. J.A. Croson*, 488 U.S. 469, 109 S.Ct. 706 (1989) (*Croson*). In that case, the Court held that race-conscious programs must be supported by strong documentation of discrimination, including evidentiary findings that go beyond the demographics of a community. Anecdotal information can bolster the quantitative analyses of contract expenditures to explain whether or not minority business creation, growth, and retention are negatively affected by discrimination. In *Croson*, the Court indicated that anecdotal accounts of discrimination could help establish a compelling interest for a local government to institute a race-conscious remedy⁵⁶. Moreover, such information can provide a local entity with a firm basis for fashioning a program that is narrowly tailored to remedy identified forms of marketplace discrimination and other barriers to M/WBE participation in contract opportunities.

⁵⁶ *Croson*, 488 U.S. at 509

MGT's experience conducting disparity studies has shown that utilizing multiple methods of anecdotal data collection provides more comprehensive information than methodologies using a single-pronged approach. For this reason, MGT used a combination of surveys, community meetings, online comments, focus groups, and one-on-one interviews with businesses to collect anecdotal information that are analyzed to identify issues and concerns that were common to businesses in the market area. In addition to the anecdotal data collection from area businesses, MGT conducted interviews and meetings with area trade associations, business organizations, and members of the M/WBE Advisory Committee to gather anecdotes on their perceptions on City's procurement process and impact of the M/WBE program to firms. While the collection of these anecdotes is not required by the courts, input from advocacy and professional development organizations give a third-party perspective of M/WBE issues.

5.2.1 OUTREACH

To establish a base for the outreach efforts MGT developed a master anecdotal database of firms that incorporated data sets from the City's vendor and certification lists; membership lists provided by area trade associations and business organizations; and vendor and certification lists collected from relevant public agencies. This database was created to ensure a broad range of firms in the marketplace were notified about the qualitative data collection activities.

Next, MGT worked with the City to identify various outreach methods geared to inform and encourage community involvement and engagement for the anecdotal data collection activities. One such method was the creation of a disparity study website that informed the community of the project objectives, work tasks, anecdotal activities, frequently asked questions, and general information about the initiative. The website allowed businesses to submit online comments directly to MGT about their experiences doing business or attempting to do business with the City. Translations to Spanish, Chinese, Haitian Creole, and Korean were available on the website. Additional outreach methods included:

- ◆ MGT and the City identified area trade associations and business organizations, referred to as stakeholders for purposes of this report, whose insights would be valuable to understanding the dynamics and perceptions of the vendor community. The stakeholders were notified via e-mail blasts, mailed letters, and/or phone calls of anecdotal data collection activities and asked to encourage their members to participate.
- ◆ Use of social media, i.e. Twitter, Facebook, LinkedIn to encourage engagement. Twitter activities included posting in additional languages as noted above.
- ◆ Printed materials distributed at citywide events and workshops to increase awareness. Printed material was also provided in additional languages.
- ◆ Business information surveys, provided in additional languages as well, gathered business information on firms in the marketplace such as primary business industry, race, ethnicity, gender, and business contact information.
- ◆ Email blasts to the business community to increase awareness and engagement.
- ◆ Meetings with the City's M/WBE Advisory Council members and advocacy groups helped to mutually inform the project team about critical priorities and the community regarding the study.

- ◆ Printed and digital ads (included in various ethnic media publications) as well as radio ads also increased awareness.

5.2.2 SAMPLING

MGT's sampling methodology for the focus groups, in-depth interviews, and survey of vendors was to randomly select firms from the study's master vendor database. Each sample pulled included M/WBE and non-M/WBE firms in each procurement category studied in this report. To avoid contacting business multiple times the database was cross referenced with previous extractions to ensure that firms did not participate in more than one anecdotal activity.

5.2.3 SURVEY OF VENDORS

The survey of vendors asked respondents to provide information on business ownership, demographics and structure; work bid or performed as prime contractors with the City; work bid or performed as subcontractors to City prime contractors; whether the respondent firm bid or performed work in the private sector; and any perceived barriers to doing business with the City or its primes that the respondents believed they had experienced during the study period. The survey was administered via telephone and online survey to a randomly selected list of firms.

Disparity study survey analyses are commonly plagued by sample size limitations, especially where the size of the minority business population is insufficient to permit a valid and representative sample. This problem is compounded when analyses are stratified further by business category. Insufficient sample size can pose problems for the statistical confidence of the results. MGT attempted to collect data in proportion to the distribution of M/WBEs and non-M/WBEs in the relevant market area. Although MGT's goal is to report data that can satisfy the 95 percent confidence level⁵⁷, this does not mean that data should not be reported because of slightly reduced confidence intervals, especially when extreme due diligence has been exercised in attempting to meet the 95 percent standard. For this reason, our conclusions from the responses received do not reflect a statistical finding for Native American firms in the anecdotal findings. The questionnaire for the survey of vendors is included in this report as **Appendix D, Survey of Vendors Instrument**.

The data from the survey responses were analyzed to determine the types of firms represented in the findings included within this chapter. These survey demographics are included as **Appendix H, Analysis of Survey of Vendors**.

5.2.4 COMMUNITY MEETINGS

Area businesses were invited to attend one of five community meetings. As a precursor to collecting comments, attendees were provided a presentation outlining the study's objectives and work tasks. Following the presentation, attendees who wanted to provide comments did so individually.

⁵⁷ A 95 percent confidence interval is an industry standard for social science research and communicates the likelihood of the observation falling within the bounds of the margin of error, for which the industry standard is +/- 5 percent. This has been validated in court decisions including *H.B. Rowe Co., Inc. v. Tippett* (See 615 F.3d 233, 250, 4th Cir. 2010).

The Community Meetings were held as follows:

- ♦ May 9, 2016: Brooklyn – National Grid, 1 Metrotech Center
- ♦ May 10, 2016: Staten Island – St. George Theater, 35 Hyatt Street
- ♦ May 11, 2016: Manhattan – Mist Harlem, 46 West 116st Street
- ♦ May 12, 2016: Bronx – P.S. 043 Jonas Bronck, 165 Brown Place
- ♦ May 13, 2016: Queens – NYC Department of Design and Construction, 30-30 Thomson Avenue

MGT and the City engaged the outreach efforts as described in **Section 5.2.1** to invite the business community. Since the community meetings were open to the public, firms that participated in the community meetings may have been randomly selected for other anecdotal activities.

5.2.5 IN-DEPTH INTERVIEWS

The in-depth interviews were one-on-one interviews with business owners or representatives to gather information from M/WBE and non-M/WBE firms regarding their primary line of business, ethnicity, gender, education/training background of the owner, business history, size and gross revenues during selected calendar and/or fiscal years, and information about the firms' experiences in attempting to do, and conducting business with the City (both directly as a prime and/or as a subcontractor). The in-depth interviews were structured settings in which an interviewer or facilitator used an interview guide (**Appendix F**) to petition input from participants, but provided more latitude for additional information gathering on issues that are unique to the respondents' experiences than the community meetings. The interviewer made no attempt to prompt or guide responses from the participants, although follow-up questions were asked to obtain further clarification or information as necessary and appropriate. Before the interviews began, each participant attested that their responses were given freely and were true and accurate reflections of their experience with the City or its prime contractors.

5.2.6 FOCUS GROUPS

The focus groups were structured by industry to allow for discussions comparable to the industry bidding or proposal and contract practices. The industries were divided in construction primes, construction subcontractors, non-construction primes, and non-construction subcontractors. Firms were randomly selected and contacted to participate in their appropriate focus group and facilitated using the **Focus Group Guide** found in **Appendix E**. The methodology was adjusted for the construction prime and subcontractor industries by conducting additional outreach with the help of stakeholders to increase business participation.

5.2.7 STAKEHOLDER OUTREACH

Outreach to stakeholders (trade associations and business organizations) was beneficial to the outreach efforts because their assistance extended communication efforts to inform and engage the business community in anecdotal activities. Stakeholders were asked to disseminate community meetings notices and anecdotal data collection information to their members or constituents.

Stakeholders were also asked to provide MGT with a copy of membership or vendor lists which were used to help build the master vendor database used for outreach. As an alternative to providing their

membership or vendor lists, an online form was provided to allow individual members to submit their business information directly to the consultant team. The organizations and associations included in these efforts are identified in **Appendix I, List of Trade Associations and Business Organizations**.

As mentioned, stakeholders were contacted to participate in interviews and meetings to gather their input, perceptions, and experiences on the effectiveness of the M/WBE Program and barriers firms face when contracting or attempts to contract with the City or its primes.

5.2.8 ONLINE COMMENTS

Like the community meetings, the option to provide written comments via the disparity study website allowed firms who were not selected for interviews, surveys, etc. expanded anecdotal data collection. Comments were accepted until outreach efforts were concluded to ensure that firms were allowed time to submit their comments.

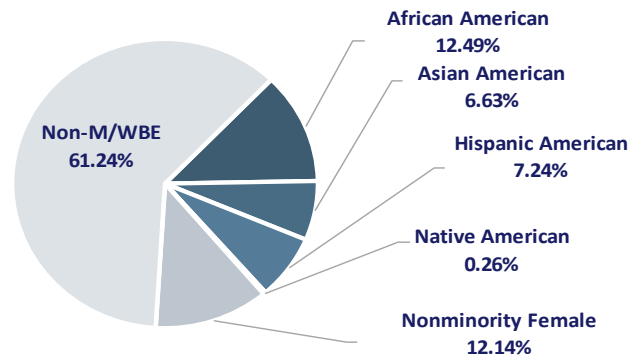
5.3 DEMOGRAPHICS

The self-reported demographic characteristics of anecdotal participants by data collection activity type are presented in the sections below.

5.3.1 SURVEY OF VENDORS

This survey collected 1,161 responses from firm owners and representatives in the City’s relevant market area. **Figure 5-1** provides the race, ethnicity, and gender of respondents. M/WBE firms accounted for 38.76 percent of the total respondents with African American firms making up 12.49 percent of those that participated followed by Nonminority Female firms at 12.14 percent, Hispanic Americans at 7.24 percent, Asian Americans at 6.63 percent, and Native Americans at 0.26 percent. In total, there were 450 M/WBE respondents.

FIGURE 5-1
SURVEY OF VENDORS DEMOGRAPHICS: PROPORTION OF RESPONDENTS BY M/WBE CLASS

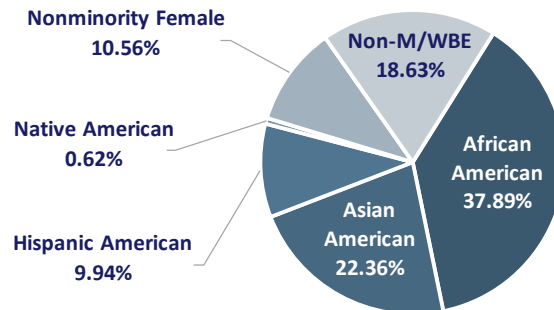


Note: Minority Females represented 10.94% of these participants.

5.3.2 COMMUNITY MEETINGS

Five community meetings were held, and 161 business owners and representatives participated representing varying industries, including construction, supplies, engineering, information technology, financial services, educational consulting, and environmental consulting. Official testimonies were received and recorded from 58 attendees. The racial, ethnic, and gender compositions of the attendees were as follow in **Figure 5-2**.

FIGURE 5-2
COMMUNITY MEETINGS DEMOGRAPHICS: M/WBE CLASS

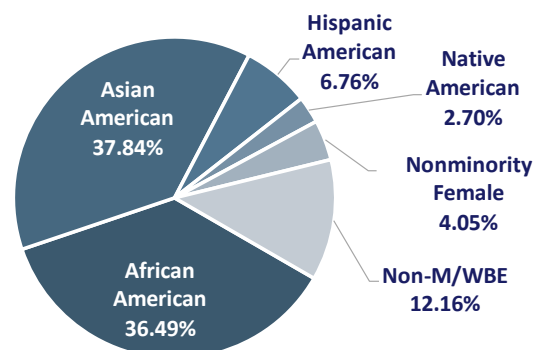


Note: Minority Females represented 26.09% of these participants.

5.3.3 FOCUS GROUPS

MGT conducted five focus groups with area business owners that provide services or goods that the City procures. The racial, ethnic, and ownership composition of the 74 firms that attended the focus groups are illustrated in **Figure 5-3**.

FIGURE 5-3
FOCUS GROUP DEMOGRAPHICS: M/WBE CLASS

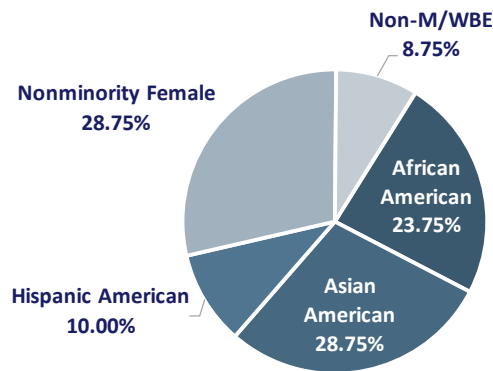


Note: Minority Females represented 25.68% of these participants.

5.3.4 IN-DEPTH FIRM INTERVIEWS

The in-depth interviews were conducted with randomly selected firms extracted from the master anecdotal database and located in the City’s relevant market area.⁵⁸ MGT cross referenced the list of firms for the interviews to ensure they were not previously selected for other anecdotal activities. In total, 80 firms were interviewed. The racial and ethnic composition of the firms that completed an interview is illustrated in **Figure 5-4**.

FIGURE 5-4
IN-DEPTH INTERVIEW DEMOGRAPHICS: M/WBE CLASS

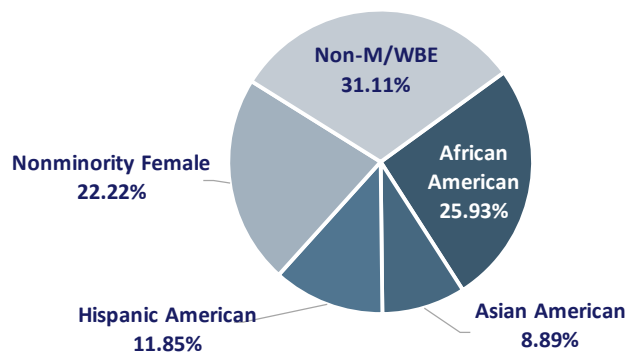


Note: Minority Females represented 18.80% of these participants.

5.3.5 ONLINE COMMENTS

Online comments were received from 270 firms that submitted responses to the study via the disparity study website. The racial and ethnic composition of participating firms is illustrated in **Figure 5-5**.

FIGURE 5-5
ONLINE COMMENT DEMOGRAPHICS: M/WBE CLASS



Note: Minority Females represented 24.81% of these participants.

⁵⁸ See **Chapter 3, Market Area and Utilization Analyses**.

5.4 FINDINGS

The findings included below reflect the prevailing opinions and perceptions of anecdotal participants characterized in the preceding demographic summary. As such, the themes are drawn from a very broad base of participants reflecting a comprehensive array of viewpoints and experiences regarding work with the City or its primes.

In the successive sections, findings are generally organized around themes of concerns expressed by vendors, with evidence divided between (1) items identified through qualitative input from anecdotal research participants (interviews, focus groups, and open-ended comments) and (2) quantitative summaries of perceptions collected through the survey of vendors. In some cases, content is limited to one category of findings or the other based on the scope of information collected through either medium.

5.4.1 PROCUREMENT PROCESS ISSUES AND CHALLENGES OF M/WBES

Procurement process issues and challenges are frequent issues of concern among vendors in many markets, with New York City not an exception. The perception of fair and equal opportunity to bid or propose on City contracts is critical to the growth and success of all firms, and particularly those of disadvantaged social or economic circumstances, such as M/WBES. The most common themes within this category elicited from participants were:

- A. The City's procurement process is generally cumbersome and disjointed, which more severely impacts smaller firms including many M/WBE vendors, who do not have the capacity to manage additional administrative overhead.
- B. The time required to identify and manage inconsistencies in bid or proposal documents of various City agencies (that is, a perception that the bids are presented in a non-standardized format between City agencies, which makes the evaluation and response to each bid more cumbersome) prevents some small businesses from submitting bids and thus disparately impacts M/WBES.
- C. Frustration that when M/WBE firms submit bids or proposals, and fail to win, they are often not notified or given short notice, cannot find out who won the project, nor given guidance on how to submit a more successful bid or proposal in the future. Participants expressed desire for either proactive provision of this information by the City or heightened responsiveness to requests in terms of consistent and timely follow-through.

Included below is a sampling of comments from participants reflecting specific instances of these barriers:

- ◆ An Asian American male owner of an engineering firm stated that City agencies have differing procurement processes.

"Each Agency has a different procurement process and this makes working with the agencies difficult. It would be nice to have a white paper on how to do business with the different

agencies. Better yet it would be wonderful if the procurement process could be standardized. Have a look at eVA Virginia State eProcurement Portal.”

- ◆ An African American female owner of a general contracting firm stated that there is no consistency within the management of City projects.

“One agency had three construction managers (CMs) and each construction manager has different requirements. Two of the CMs said they did not require bonding and one CM did require them, and one said no project labor agreements (PLAs) were required and the other two required PLAs.”

- ◆ A Nonminority Female professional services firm owner stated that getting input on how their proposal fared amongst others is difficult.

“Several times...I got the run around until finally, in one case, someone intervened and I did get feedback. I know you have an evaluation system for each contract but it seems very arbitrary and frustrating.”

- ◆ An African American male owner of an architecture & engineering firm indicated barriers with the prequalification and notification of bid opportunities.

“The prequalification criteria are unrealistic given the experience required for minority businesses setting out to do contract work with the City. We receive bid request from the City with only one week to respond to very difficult and detailed proposals and there is limited information with regards to understanding the purchasing contracting policies and procedures from agency to agency.”

- ◆ An Asian American male owner of an engineering firm faces challenges trying to work with the City.

“Due to the success of a few firms in the Engineering Service I feel that it is unfair that NYC has eliminated the Asian criteria for MBE on Engineering contracts making it very hard for newer firms that meet these criteria to penetrate the market.”

- ◆ An African American male owner of a goods firm cited challenges breaking into certain types of procurements.

“We have lost most of our business with NYC due to the goods contract that bypasses the bid process and allow agencies to purchase computer hardware and software directly from one supplier. The ability to work with MBE's has gotten worse under this administration.”

- ◆ An African American female owner of a construction firm indicated frustration with the bidding process and limited windows to respond.

“We have experienced receiving a bid package the Wednesday before Thanksgiving with a due date of the following Monday. This is a clear indication that the agency knew who they wanted to give the award to, but was bidding it out just because they were required.”

- ◆ An owner of a Nonminority Female communications firm stated that for over a year they have tried to win contracts with the City.

“My experience has been that purchasing agents want to continue to do things the way they have always done them and with firms they have always done business with. I tried contacting purchasing agents and they do not return my calls or emails.”

- ◆ An African American male owner of a goods firm stated that some purchasing agents tend to be unsupportive when dealing with MBE firms.

“Over the years I have experienced purchasing agents that refused to provide winning bid amounts, refused to identify the winning bidder, pre-selected the winning bidder and used my quote to round out the “minimum of three bids” requirement.”

In addition to the perceptions noted above, findings from the survey of vendors regarding these types of obstacles are summarized below in **Table 5-1**. City vendors participating in the survey responded to a list of typical obstacles to solicit their perceptions as to whether they saw any of these items as barriers to their participation. Among those related to procurement processes, the most frequently cited items included:

- ◆ The limited time given to prepare bid packages (cited by over 27 percent of all M/WBE-owned firms).
- ◆ The selection process and evaluation criteria (cited by nearly 26 percent of all M/WBE-owned firms).
- ◆ Too many restrictive contract specifications (cited by nearly 25 percent of all M/WBE-owned firms).

TABLE 5-1
OBSTACLES AND BARRIERS FACED BY M/WBE FIRMS PER THE SURVEY OF VENDORS
PROCUREMENT PROCESS ISSUES AND CHALLENGES

Barriers for M/WBE Primes	African American	Asian American	Hispanic American	Native American	Non-minority Female	All Women-Owned	Average, All M/WBEs
Proposal/Bid specifications	26.21%	14.29%	14.29%	0.00%	18.44%	21.64%	19.33%
Short or limited time given to prepare bid package or quote	29.66%	25.97%	21.43%	33.33%	29.08%	28.73%	27.33%
Limited knowledge of purchasing contracting policies and procedures	17.24%	14.29%	14.29%	0.00%	12.77%	14.93%	14.67%
Selection process/evaluation criteria	29.66%	24.68%	20.24%	33.33%	24.82%	28.36%	25.56%
Too many restrictive contract specifications	26.90%	18.18%	27.38%	33.33%	24.11%	26.12%	24.67%
Changes in scope of work	11.03%	5.19%	8.33%	0.00%	9.22%	8.96%	8.89%
Stringent terms on contracts	13.10%	11.69%	13.10%	0.00%	17.73%	17.91%	14.22%
Varying terms on contracts by agency	16.55%	9.09%	11.90%	0.00%	15.60%	14.93%	14.00%
Delayed approval of change orders	10.34%	12.99%	17.86%	0.00%	13.48%	13.06%	13.11%
Prequalification	24.14%	19.48%	22.62%	0.00%	20.57%	24.63%	21.78%

5.4.2 M/WBE CERTIFICATION ISSUES AND CHALLENGES

M/WBE firms seek certification as a way to expand their opportunities to be included in participation goals set by the City, and hope to leverage certification programs. An M/WBE certification provides a layer of marketing for new or small firms that do not have full-time marketing or business development resources. The M/WBE certification process was noted as a challenge for many minority and women-owned businesses. The main issues and challenges noted within this domain include:

- D. Smaller firms lack the resources to compete, and it is perceived as unfair when very large firms are able to compete for smaller contracts or micropurchases.
- E. Frustration with the level of support and responsiveness of the City in facilitating the certification process.

Included below is a sampling of comments on this barrier.

- ◆ An African American male owner of an information technology company is frustrated with the certification process.

"I have done federal contracting for a long time... Not only have I been given the run around trying to get my MBE certification after months of trying and having all the required paperwork in, but I also never hear back on bids I have submitted. For my company for the time being I have stuck with doing federal business."

- ◆ A Nonminority Female owner of a professional services firm stated that they tried to obtain a WBE certification.

"We have been trying to obtain WBE certification and we found it exceptionally difficult. We are not getting feedback from the analysts, reviewing the application, our calls and emails are not answered. We have been told many times that it takes up to twelve weeks to process an application but it's been much longer than that and still we can't get clear response on our inquiries."

- ◆ A Nonminority Female owner of a goods firm commented about challenges in obtaining the City's certification.

"The process to be certified as a WBE is beyond onerous. We applied for and were awarded a C Corporation certification with ease. That process reviews our company from top to bottom was less complicated than WBE - which is based 100% on the gender of the company owners. To validate . . . a woman-owned business should be a turn key process."

5.4.3 FINANCIAL BARRIERS

Two general domains of concern arise frequently among vendors relating to financial obstacles associated with working with the City: limited access to capital and problems with cash flow. Access to capital impacts M/WBE and small firms' ability to successfully complete projects, apply for and receive bonds, hire employees, and operate their businesses. Similarly, cash flow becomes a barrier for M/WBE firms, particularly smaller M/WBE firms, because it limits the amount of work they can bid, or decreases

their ability to hire employees or retain current employees. Specific issues and challenges noted in this domain included:

- F. Access to capital and associated barriers to entry.
- G. Difficulty gaining approvals required to initiate the payment process.
- H. Inefficient, manual, paper-based invoicing processes.
- I. Inconsistency in promptness of payment from differing agencies.
- J. Delayed payments and the need to “chase down” payment for services rendered to the City.
- K. Similar issues of delayed payment from primes when working as a subcontractor.

Included below is a sampling of comments on this barrier.

- ◆ An African American male owner of a general contracting firm indicated that the payment process by the City should be streamlined.

“I have been doing business with the City in 18 public schools in Queens, Brooklyn and the Bronx since 2004. My challenge has been and continues to be the way payment is processed. The mailing of hard copy invoices seems to be very unorganized. To eliminate the excessive use of paper I think submitting electronically would be a more efficient process.”

- ◆ A non-M/WBE service-disabled veteran professional services business owner addressed the hardships created when payment is delayed for small businesses.

“Over the years, I have found that different NYC agencies vary greatly in the ease and speed of the contracting process. As a small business, it is not feasible to wait two years to go from solicitation to contract as we have experienced in some cases. Additionally, while some agencies meet their financial commitments without fail, others have failed to pay invoices upwards of 100 days past due. Again, as a small business cash flow is our lifeblood and these payment practices leave us teetering on the edge of layoffs and other drastic measures with no recourse. In the last year or so, I have found it more than challenging to continue to attempt to secure work and operate with such delays in payment.”

- ◆ An African American female owner of a general contracting firm discussed barriers her firm faces relating to the cost of bidding and bonding requirements.

“An undue burden is placed on small businesses, for it is a large administrative task to put bids together. For a certain project, we submitted a bid, but could not secure bonding. The bonding requirements were too high and far outweighed the total cost of the project.”

- ◆ A Nonminority Female professional services firm owner indicated that bonding is a barrier

“The bonding requirements are too high and expensive.”

- ◆ An African American male professional services firm owner stated that some contracts delay in payment create payroll issues.

“Financing is an issue because it's difficult to float payroll with certain contracts.”

In addition to the perceptions noted above, findings from the survey of vendors regarding these types of obstacles are summarized below in **Table 5-2**. City vendors participating in the survey responded to a list of typical obstacles to solicit their perceptions as to whether they saw any of these items as barriers to their participation. Among those related to financial barriers, the following were cited most frequently:

- ◆ Slow payment or non-payment was referenced by nearly 20 percent of all M/WBE-owned firms, on average.
- ◆ Financing, cost of bidding or proposing, and bond requirements were each referenced by more than 15 percent of all M/WBE-owned firms.

TABLE 5-2
OBSTACLES AND BARRIERS FACED BY M/WBE FIRMS PER THE SURVEY OF VENDORS
FINANCIAL BARRIERS

Barriers for M/WBE Primes	African American	Asian American	Hispanic American	Native American	Non-minority Female	All Women-Owned	Average, All M/WBEs
Bond requirement	19.31%	12.99%	22.62%	0.00%	7.80%	13.06%	15.11%
Performance/payment bond	16.55%	11.69%	19.05%	0.00%	9.93%	13.06%	14.00%
Cost of bidding/proposing	16.55%	12.99%	16.67%	33.33%	14.89%	16.79%	15.56%
Financing	24.83%	5.19%	20.24%	0.00%	11.35%	16.04%	16.22%
Insurance	8.97%	7.79%	15.48%	0.00%	7.80%	9.70%	9.56%
Price of supplies/materials	12.41%	6.49%	11.90%	0.00%	9.93%	11.94%	10.44%
Slow payment or nonpayment	24.83%	7.79%	21.43%	0.00%	19.86%	19.78%	19.56%

5.4.4 PRIME CONTRACTING BEHAVIOR

Subcontracting is often the gateway to M/WBE firms growing their businesses. Primes that unfairly treat, assess, and deal with M/WBE firms impacts the City's program as well as the economic vitality of M/WBEs as they try to grow their businesses. Specific issues and challenges noted in this area include:

- L. Primes are not transparent regarding receipt of payments, which inhibits subcontractors' ability to work with them due to the uncertainty around when payments might be expected.
- M. It is perceived that the waiver process, which amends or reduces goal requirements in circumstances where sufficient M/WBEs cannot be identified, is used without meeting the requirements to advertise the opportunity.
- N. Frustration with prime contractors that use M/WBE firms as part of their bid packages, only to limit their participation or payment once the project is won.
- O. Subcontractors must invest time and materials in helping to win bids, but then are subject to the whims of the primes upon contract award, including exclusion from the contract.
- P. Desire for more opportunities to network with prime firms to increase their opportunities for subcontract work.

- Q. Subcontractors face disproportionately long amounts of time for payment after work is completed, due to their work being tied up within larger prime deliverables – so irrespective of whether their work is complete and satisfactory, they must wait for the broader body of work, for which they are not responsible, to be completed.

Included below is a sampling of comments on this barrier.

- ◆ An African American female owner of a consulting firm stated that subcontractors are at the mercy of primes when it comes to getting paid.

“There is no way for me to confirm that a prime was paid so that I can know when to expect my payment.”

- ◆ A Hispanic American female owner of a general contracting firm indicated that primes are not serious about utilizing M/WBE firms.

“Many contracts call for minimum requirements for MBE/WBE utilization but have waivers that prime vendors can use to avoid using an MBE/WBE by claiming they reached out to MBE/WBE companies and they supposedly did not respond to their requests or were not qualified.”

- ◆ An Asian American male owner of an engineering firm commented that Local Law 1 eliminated M/WBE goals for Asian-owned Professional Services firms and since then their firm has not been able to get large firms to partner with the company.

“Ever since the local NYC law, which eliminated the goal requirements for Asians in professional service contracts, went into the effect it has been very difficult to get on team with prime consultants on City contracts. We have also heard from many primes that they are having difficulties to meet the race specific goals required by the City.”

- ◆ A Nonminority Female owner of a professional services firm described her experience working with a prime consultant.

“Working as a sub to a prime hasn't panned out at all for me. The primes "sub" to entities that are either part of their companies or friends. The one contract I did receive for about \$99K over three years ago. I received approximately \$3K (or less) of work and my calls weren't answered after a while I stopped calling. From a one-person company's point-of-view, this is a very disappointing process and the system is most rigged.”

- ◆ An African American male owner of a trade contracting firm stated that they have not had good experiences with prime contractors.

“I have not had a good experience with GCs or Prime Contractors. You go through the process of submitting a bid to these companies and most of the time they ask you to lower your bid or you never hear back from them. Or you work on a project and at the end you don't get paid. Or they put you through so much, because these companies really don't want to use MBEs. I really am scared to invest money into another company's projects for them to get paid and I might walk away in debt.”

- ◆ A Nonminority Female owner of an accounting firm stated that opportunities to meet primes are critical to her firm's success.

“As a single member LLC, I generally must subcontract with NYC prime contractors for most RFPs. Therefore, meeting and building relationships with primes is crucial to my ability to participate in city procurement contracts. So, any opportunity the NYC can offer me to meet with prime contractors would be most appreciated and welcomed.”

- ◆ An Asian American male owner of an engineering firm stated that primes drop M/WBE firms after the prime has won the contract.

“Construction management firms use M/WBE certified firms on their proposal and during presentation to the agency only to be dropped after award of the contract.”

- ◆ A Hispanic American female owner of a trade contracting firm expressed her frustration with primes using her quote but not contracting with her firm.

“Primes contact you to submit numbers then you don’t hear from them. They use your number and you have to pay for the drawings, insurance, estimators and you don’t get the work.”

- ◆ An African American female owner of a trade contracting firm stated that primes are not really trying to help M/WBE firms to grow.

“Why can’t primes give us mobilization or progress payments to help establish and maintain cash flow on the project? They say they want to help but they really don’t.”

5.4.5 SCALE OF OPPORTUNITY AND COMPETITION

Anecdotal comments indicate that competing with large firms or the size of City contracts is a barrier to winning contracts. With other barriers such as access to capital and cost of doing business, M/WBE firms feel that their companies cannot grow if they must have the same level of resources as larger competitors. Challenges and issues that were noted included:

- R. Smaller firms lack the resources to compete, and it is perceived as unfair when very large firms are able to compete for smaller contracts or micropurchases.
- S. A lack of transparency as to who is being asked to bid was cited as a competitive barrier – M/WBE-owned firms believe they can be more competitive if information on prospective bidders is released.

Below are a few comments from M/WBE firms regarding this barrier.

- ◆ An Asian American male owner of an engineering firm stated that competing against large firms is a barrier.

“Competing against large firms for smaller projects is a barrier because I don’t have the same resources they have to compete.”

- ◆ An African American male owner of a goods firm stated that small firms cannot compete against big box stores.

“I’m in retail sales. There’s no reason why I should be competing with Best Buy, at least not for small contracts. Once it gets up to a million or so, yes, that’s a different situation. But, I shouldn’t have to compete with a Best Buy or PC Richards, or B&H for a \$25,000 contract.”

- ◆ A Nonminority Female owner of a general contracting firm expressed concerns regarding prohibitive scale requirements in bids relative to the size of project.

“The requirements are artificially high without the need. For example: We bid on [a project] to design a small office. The requirements called for a staff of 20 architects when the project could have easily been completed by a smaller firm.”

- ◆ A Hispanic American male owner of a standard services firm questioned the random selection for micropurchasing.

“In the interest of fairness, vendors should be made aware of randomly selected vendors for micropurchases an actual solicitation. The process needs to be more transparent so that we all know that it is based on competency, on qualification, and it could be also by way of freedom of information.”

- ◆ A Nonminority Female owner of a goods firm commented that she should not have to compete with large firms for micropurchases.

“I find that most of my challenges are my competitors who compete with a lot of vendors, or I find to be larger companies, a Staples, or such as a Best Buy, and for a micropurchase, I think that if we’re competing with these types of entities, I don’t think that’s fair. I think that if they were to organize it where I would be competing with other small vendors as myself, it would probably make it a bit fairer for smaller business to grow.”

In addition to the perceptions noted above, finding from the survey of vendors regarding these types of obstacles are summarized below in **Table 5-3**. City vendors participating in the survey responded to a list of typical obstacles to solicit their perceptions as to whether they saw any of these items as barriers to their participation. Among those relating to either the scale of the opportunities or the scale of competitors bidding against them, the survey revealed:

- ◆ Competing with large companies was cited by 30 percent of all M/WBE-owned firms as an obstacle or barrier.
- ◆ Contracts that are too large were cited by nearly 23 percent of all M/WBE-owned firms.
- ◆ A slightly lesser percentage of all M/WBE-owned firms identified lack of personnel (12%), a lack of experience (11%), or operating at or near capacity (8%) as obstacles or barriers.

TABLE 5-3
OBSTACLES AND BARRIERS FACED BY M/WBE FIRMS PER THE SURVEY OF VENDORS
SCALE OF OPPORTUNITY AND COMPETITION

Barriers for M/WBE Primes	African American	Asian American	Hispanic American	Native American	Non-minority Female	All Women-Owned	Average, All M/WBEs
Contracts too large	28.28%	14.29%	20.24%	0.00%	23.40%	24.25%	22.67%
Competing with large companies	35.86%	27.27%	21.43%	33.33%	30.50%	35.07%	30.00%
Operating at or near capacity	9.66%	3.90%	9.52%	0.00%	6.38%	8.21%	7.56%
Lack of experience	13.10%	9.09%	10.71%	0.00%	9.22%	12.69%	10.67%
Lack of personnel	15.17%	7.79%	8.33%	0.00%	14.18%	15.67%	12.22%

5.4.6 DISCRIMINATION AND DISPARATE TREATMENT

Included below (**Table 5-4**) is a summary of firms' responses to the survey of vendors as to whether they encountered disparate treatment or discrimination working with the City, with the City's primes, or in the private sector. Proportions of M/WBEs indicating such experiences were as follows:

- ◆ 6.81 percent of M/WBE firms working as primes claimed to have experienced discrimination or disparate treatment working with the City.
- ◆ 6.80 percent of M/WBE firms working as subcontractors indicated discrimination or disparate treatment working with the City's primes.
- ◆ 11.56 percent of all M/WBE firms indicated discrimination or disparate treatment working in the private sector.

TABLE 5-4
DISCRIMINATION EXPERIENCES IDENTIFIED BY SURVEY OF VENDORS RESPONDENTS

	By City	By Primes	In the Private Sector
M/WBE (Prime)	6.81%		
Non-M/WBE (Prime)	3.36%		
M/WBE (Subcontractor)		6.80%	
Non-M/WBE (Subcontractor)		3.02%	
All M/WBE Firms			11.56%
All Non-M/WBE Firms			1.83%

In **Table 5-5**, M/WBE survey respondents further elaborated on how they experienced various forms of disparate treatment by primes as subcontractors. The categories included in the table below were provided as options for describing types of disparate or discriminatory treatment by primes towards subcontractors. Perceptions of unequal or unfair treatment, bid shopping, and double standards in performance were the most frequently cited experiences of M/WBE subcontractor respondents.

TABLE 5-5
DISPARATE TREATMENT IDENTIFIED BY SUBCONTRACTORS

Types of Disparate Treatment	African American	Asian American	Hispanic American	Native American	Non-minority Female	All Women-Owned	Average, All M/WBEs
Harassment	3.45%	1.30%	0.00%	0.00%	2.84%	2.24%	2.22%
Unequal or unfair treatment	9.66%	5.19%	4.76%	0.00%	4.96%	6.72%	6.44%
Bid shopping or bid manipulation	8.97%	3.90%	7.14%	0.00%	5.67%	5.97%	6.67%
Double standards in performance	8.28%	3.90%	4.76%	0.00%	2.13%	4.85%	4.89%
Denial of opportunity to bid	5.52%	5.19%	2.38%	0.00%	2.84%	2.61%	4.00%
Unfair denial of contract award	3.45%	3.90%	2.38%	33.33%	2.13%	3.36%	3.11%
Unfair termination	4.14%	1.30%	1.19%	0.00%	2.13%	2.61%	2.44%
Unequal price quotes from suppliers	2.07%	3.90%	1.19%	0.00%	1.42%	2.24%	2.00%

5.5 SUGGESTED REMEDIES FROM ANECDOTAL PARTICIPANTS

While collecting anecdotal data, participants provided their ideas and recommendations for improving the procurement process and M/WBE program to increase M/WBE participation. A few recurring ideas and/or suggested remedies provided by participants are:

- ◆ The City's procurement process should be standardized across all agencies. Participants perceived that procurement processes for the same types of services can vary between agencies.
- ◆ The City should expand the scope of notices of procurements published online to include all available contracting opportunities.
- ◆ To streamline the procurement process, the City should invest in the electronic submission of bids, proposals, and quotes. Firms noted that their experience with electronic submission saves them time and money because they do not have to print multiple copies to submit.
- ◆ The City should publicly release the results of all contracts awards, large and small, to increase transparency. This information should be uploaded to the website immediately after the contract is awarded.
- ◆ After the contract is awarded the City should monitor M/WBE participation more closely, by instituting regular milestones during the life of each contract.
- ◆ The City should require primes to pay subcontractors within seven days of the prime receipt of payment from the City.
- ◆ The City should create tiers of participation so that small business can compete on appropriate size contracts.
- ◆ The prequalification criteria should include similar work completed in the private sector.

5.6 STAKEHOLDER INTERVIEWS

MGT also conducted interviews with representatives from 27 area trade associations and business associations and 13 members of the Mayor’s M/WBE Advisory Council regarding the impact of the City’s M/WBE programs.

Generally, these stakeholders agree that the M/WBE Program can be beneficial to the growth and development of M/WBE firms. The stakeholders interviewed provide capacity building, advocacy, and technical and/or business development to their members, many of which are M/WBE firms. The challenges that many of the stakeholders perceived included:

- ◆ The length of time required for firms to receive payment from the City; M/WBE firms may lack capitalization necessary to finance work while waiting for payment.
- ◆ Difficulty securing necessary financing.
- ◆ The cost of insurance necessary to qualify for contracts.
- ◆ The exclusion of M/WBE firms from project labor agreements because they do not have union agreements.
- ◆ The specificity of qualifications identified in bid requirements makes it difficult for new firms to enter into markets.
- ◆ The continuing need to develop relationships with other vendors and agencies to be included among the known and trusted network.
- ◆ The complexity of and length of time required for the M/WBE certification process.

In addition, stakeholders suggested that a partnership with the City for their organizations to receive technical assistance and outreach could increase not only the awareness of the M/WBE program but the utilization of M/WBE firms. Stakeholders want to see more transparency in the procurement process at all levels of procurement, and focus on the long-term development of capacity building of M/WBE firms.

5.7 CONCLUSIONS

In the preceding sections, descriptions of barriers and obstacles faced by M/WBEs working with the City, the City’s primes, and in the private sector were documented to provide further context and insights into the dynamics that have likely contributed to the disparities observed in **Chapter 4**. Obstacles and barriers cited by the more than 1,600 participants in these anecdotal data collection activities included challenges in:

- ◆ Navigating the procurement processes of the City;
- ◆ Obtaining M/WBE certification;
- ◆ Maintaining the financial requirements that are necessary to perform work on City contracts;
- ◆ Managing cash flow issues arising from instances of delayed payments for City contracts;

- ◆ Competing against much larger firms and possessing the scale to pursue many of the larger opportunities;
- ◆ Issues facing M/WBE subcontractors attempting to work with the City's prime contractors;
- ◆ Instances of perceived disparate treatment by the City, its primes, or in the private sector.

**CHAPTER 6: Findings and
Recommendations**

DISPARITY STUDY

City of New York



6.1 INTRODUCTION

The City of New York contracted MGT of America Consulting, LLC to conduct a Minority and Women-owned Business Enterprise Disparity Study (“Disparity Study”). The objective of this Disparity Study was to conduct a disparity analysis of the utilization of M/WBEs in New York City procurement activity, compared to the availability of M/WBEs in the relevant market area.

The Disparity Study’s findings are presented in detail in **Chapters 2** through **5** of this report, and the supporting appendices. This chapter will summarize the evidence on the overarching research question: *is there factual predicate evidence for the continuation of the City’s M/WBE program?* MGT found sufficient evidence of disparity and recommends that the City continue its M/WBE program to address identified disparities.

CHAPTER SECTIONS



- 6.1 Introduction
- 6.2 Summary of Findings
- 6.3 Recommendations

6.2 SUMMARY OF FINDINGS

FINDING A: RELEVANT MARKET AREA

Based on the market area analysis of the City’s procurement activity (**Chapter 3**) it was determined that the 13 counties encompassing the City’s current default Minority and Women-owned Business Enterprise (M/WBE) Certification area (the New York counties of Bronx, Kings, New York, Richmond, Queens, Nassau, Putnam, Rockland, Suffolk, and Westchester, and New Jersey counties of Bergen, Hudson, and Passaic) should continue to be used as the market area.

FINDING B: DISPARITIES IN CITY PROCUREMENT

Table 6-1 shows a summary of availability findings. MGT found disparities between utilization and availability of M/WBEs during the Disparity Study period (**Chapter 4**). The disparity indices were substantial and statistically significant in all industries and M/WBE categories, except for Native Americans in Standard Services.⁵⁹

⁵⁹ This was the instance where the population was too small to determine statistical significance. However, the Disparity Index value of 1.88 is so low that the statistical significance is less essential to the confirmation of the gap that exists between utilization and availability.

TABLE 6-1
AVAILABILITY ANALYSIS SUMMARY

Procurement Category	African American	Asian American	Hispanic American	Native American	WBEs	M/WBEs*
Architecture & Engineering	7.54%	7.33%	11.74%	0.32%	35.17%	51.84%
Construction	12.00%	11.10%	17.95%	0.56%	25.66%	54.80%
Professional Services	12.15%	9.56%	8.78%	0.68%	36.78%	53.55%
Standardized Services	14.32%	9.88%	10.20%	0.03%	29.26%	50.33%
Goods or Commodities	5.94%	10.59%	7.07%	2.44%	30.51%	44.71%

*Availability shown for all M/WBEs does not equal the sum of the individual categories because the WBEs category is comprised of all women-owned firms, regardless of race or ethnicity.

FINDING C: ANECDOTAL EVIDENCE

Using multi-faceted qualitative data collection methods, MGT gathered perceptions, experiences, and proposed options to enhance the contracting experience from the business community, particularly among M/WBE firms (**Chapter 5**). The examination of anecdotal evidence reveals the barriers that M/WBEs faced in accessing City's procurement, including procurement process issues, certification challenges, financial obstacles, prime contractors' behavior, competition against larger firms and other barriers. These findings provide anecdotal corroboration and illustration for the statistical evidence of disparities found by the Disparity Study.

FINDING D: DISPARITIES IN PRIVATE SECTOR

Analysis of the private sector presented in **Appendix G** demonstrates disparities that exist for M/WBE firms operating in the private sector within the City's market area.

Findings from the U.S Census 2012 SBO data indicate that there are substantial disparities for most M/WBE firms across industry sectors resembling the procurement categories identified for this Disparity Study. Further, each of the procurement categories analyzed showed substantial disparity among defined M/WBE classifications.

Findings from the 2015 PUMS data indicate that women and minority males were significantly less likely than nonminority males to be self-employed. It is evident that racial, ethnic, and gender variables have a statistically significant negative impact on rates of self-employment after other factors are controlled for. If they were self-employed, women and minority males earned significantly less in 2015 than did self-employed nonminority males.

This evidence stands alongside the disparities observed in public sector contracting to illustrate the substantial inequities that continue to exist in the City's marketplace.

6.3 RECOMMENDATIONS

In developing the Disparity Study's recommendations MGT focused on addressing policies that will strengthen the City's efforts to increase utilization of M/WBEs in its procurement.

RECOMMENDATION A: PROGRAM CONTINUATION

This Disparity Study's findings support the continuation of the City's M/WBE program within the relevant market area. Based on the statistical analyses undertaken in the Disparity Study, there is a quantitatively significant disparity between utilization of M/WBEs and their availability in the marketplace. The findings presented in the anecdotal analysis provide additional corroboration of the barriers that M/WBEs face in participating in the City's procurement process. Furthermore, the evidence from the private sector analysis illustrates the substantial inequities that exist in the City's marketplace, underscoring its compelling interest in continuing to pursue remedies to address these extant gaps.

RECOMMENDATION B: PROGRAM EXPANSION

The results of the Disparity Study provide evidence for expansion of the current M/WBE program. The City should consider the following program changes:

- ◆ Revise the \$100,000 contract cap in the Goods or Commodities category.
- ◆ Include Asian American firms in the Professional Services category in the M/WBE program for the purposes of crediting their utilization towards M/WBE participation goals.
- ◆ Expand the current minority categories to include Native American firms.

RECOMMENDATION C: GOAL SETTING

The Disparity Study provides support for the City's current aspirational goal of 30% utilization for M/WBEs, for increases in the City's current citywide industry-specific goals, and the establishment of new goals, such as for Asian Americans in the professional services category and Native Americans in all categories. The City should continue to set project-specific goals to further address disparities based on M/WBE availability for project scopes.

RECOMMENDATION D: PROGRAM COMPLIANCE

The City should increase efforts to ensure all contracts with M/WBE goals are subject to ongoing monitoring for subcontracting participation to make sure that prime contractors are making sufficient progress and complying with project goals.

- ◆ The M/WBE goals should continue to be stated in all applicable solicitations for bids and proposals. Solicitation documents should also detail the requirements for outreach efforts to M/WBEs.
- ◆ The City should invest in an online tracking and compliance information management system. The system should have the capability to notify subcontractors when payments are made to

primes, and subcontractors should be able to verify their payments. We also recommend the City make efforts to track contracts awarded by direct subcontractors to indirect subcontractors.

- ◆ The City should further invest in the enforcement of contractual obligations for program compliance.
- ◆ City M/WBE program representatives should continue to regularly meet with the City's prime contractors to discuss their performance on past and active contracts, as well as efforts those firms might make to improve their utilization of M/WBEs.
- ◆ The City's M/WBE oversight and procuring agencies should have sufficient staff resources to ensure that the M/WBE program objectives and administrative procedures can be met, and that the City can uniformly implement best practice recommendations or program improvements.

RECOMMENDATION E: EXPANDING POLICY AND LEGAL TOOLS

The City should continue to expand its policy and legal tools to help increase M/WBE utilization, in collaboration with New York State. The City should consider the following utilization improving mechanisms.

- ◆ The City should expand the price preference mechanism for evaluating competitive bids submitted by M/WBEs.
- ◆ For requests for proposals, the City should expand the practice of awarding a percentage of evaluation points to M/WBE contractors.
- ◆ The City should further explore the use of pre-qualified lists to expand M/WBE participation.
- ◆ The City should consider mechanisms for connecting its mentorship programs with contract opportunities for M/WBEs.
- ◆ The City should explore ways to expand its engagement of M/WBEs as providers on large Goods or Commodities and Standardized Services contracts, including different procurement types such as requirements contracts.
- ◆ The City should explore a further increase of the thresholds for discretionary spending for M/WBEs.

RECOMMENDATION F: OUTREACH FOR M/WBES

The City should continue increasing outreach and recruitment of M/WBEs in the City's program.

- ◆ The City should continue to collaborate with certification partners, to expand the pool of City-certified firms.
- ◆ The City should maintain and enhance coordination with trade and industry organizations to obtain membership lists, and perform outreach to potential M/WBEs certified with, or licensed by, those organizations.
- ◆ The City should further invest in direct outreach efforts including marketing and advertising to business communities in its market area.

RECOMMENDATION G: TECHNICAL ASSISTANCE, CAPACITY BUILDING AND ACCESS TO CAPITAL

The City should continue its current programs that provide technical assistance, capacity building, and access to capital support. We recommend pursuing further expansion of such services and initiatives.

- ♦ The City should further partner with local trade associations, business organizations and corporations on professional development programs and workshops for M/WBEs, and contribute to their long-term development of capacity. This would not only increase the awareness of the M/WBE program but also increase the utilization of M/WBE firms and their overall competitiveness in the marketplace.
- ♦ The City should remain active in promoting the growth of M/WBEs through trainings, access to services, relationships, and other means of supporting their market expansion.

RECOMMENDATION H: REMOVING BARRIERS TO PARTICIPATION

This section focuses on recommendations that may lower barriers to participation.

- ♦ The City should continue efforts to streamline procurement processes to make it easier for small businesses, including M/WBEs, to participate in City contracting.
- ♦ The City should consider an online bid platform that will allow the electronic submission of bids and proposals. Besides making it easier for vendors to bid on contract opportunities, centralized electronic tracking of bids could also facilitate the City's efforts to help M/WBEs that are bidding regularly but not successfully.
- ♦ The City should require that prime contractors formally notify subcontractors upon award if they were identified as participants in a procurement, or whenever a subcontractor is otherwise listed as participating on the contract. For M/WBE prime bidders, the City should continue to offer debriefing sessions to unsuccessful bidders after contract registration. This option should be published in each solicitation, and advertised to M/WBE firms.
- ♦ The City should consider reviewing the criteria for unbundling larger contracts. The City should further ensure that solicitation requirements for vendors' qualifications closely reflect the actual scope of work.
- ♦ The City should facilitate further access for M/WBEs to prime contractors with available contracting opportunities.
- ♦ The City should encourage agencies to promote early engagement of M/WBEs to ensure these firms are well-apprised of upcoming procurements and able to respond to the prime and subcontract opportunities associated with them.
- ♦ The City should consider measures for expediting payments to contractors.
- ♦ The City should continue to collaborate with its certifying partners to facilitate M/WBEs' access to City certification.

APPENDIX A: Detailed Market Area
Analyses

DISPARITY STUDY

City of New York



MARKET AREA AND RELEVANT INDUSTRY CLASSIFICATION, PRELIMINARY ANALYSES

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TABLE A-1: MARKET AREA ANALYSIS, PRIME LEVEL DISTRIBUTION OF DOLLARS BY LOCATION OF FIRM (COUNTY, STATE), ALL BUSINESS CATEGORIES

COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
NEW YORK COUNTY, NY	55385	5021	\$16,847,157,744.76	23.18%	23.18%
QUEENS COUNTY, NY	25686	3002	\$13,539,521,219.00	18.63%	41.81%
KINGS COUNTY, NY	29854	3015	\$9,196,040,374.60	12.65%	54.46%
BRONX COUNTY, NY	7615	995	\$1,313,917,492.10	1.81%	56.27%
RICHMOND COUNTY, NY	3462	650	\$1,058,345,256.60	1.46%	57.72%
NASSAU COUNTY, NY	11791	1597	\$3,217,524,024.70	4.43%	62.15%
HUDSON COUNTY, NJ	1670	216	\$2,945,634,888.80	4.05%	66.20%
WESTCHESTER COUNTY, NY	4454	845	\$2,353,463,344.30	3.24%	69.44%
SUFFOLK COUNTY, NY	8549	1093	\$1,671,803,453.90	2.30%	71.74%
BERGEN COUNTY, NJ	5148	563	\$1,462,108,476.60	2.01%	73.75%
ROCKLAND COUNTY, NY	1166	184	\$566,542,172.25	0.78%	74.53%
PASSAIC COUNTY, NJ	1331	153	\$198,336,137.23	0.27%	74.80%
PUTNAM COUNTY, NY	260	86	\$13,342,370.38	0.02%	74.82%
ESSEX COUNTY, NJ	1324	253	\$4,302,244,934.76	5.92%	80.74%
MIDDLESEX COUNTY, NJ	3450	325	\$2,187,394,052.70	3.01%	83.75%
MONMOUTH COUNTY, NJ	772	193	\$493,093,470.84	0.68%	84.43%
UNION COUNTY, NJ	2164	189	\$459,399,778.49	0.63%	85.06%
MORRIS COUNTY, NJ	1693	221	\$327,544,575.50	0.45%	85.51%
OCEAN COUNTY, NJ	186	51	\$203,144,172.06	0.28%	85.79%
SOMERSET COUNTY, NJ	639	129	\$167,370,115.95	0.23%	86.02%
ORANGE COUNTY, NY	528	160	\$49,655,727.49	0.07%	86.09%
DUTCHESS COUNTY, NY	411	100	\$22,426,816.67	0.03%	86.12%
SUSSEX COUNTY, NJ	79	29	\$2,785,897.23	0.00%	86.12%
HUNTERDON COUNTY, NJ	117	37	\$2,125,404.41	0.00%	86.13%
COOK COUNTY, IL	4083	433	\$979,458,068.55	1.35%	87.47%
DOUGLAS COUNTY, NE	178	25	\$845,659,399.01	1.16%	88.64%
LEHIGH COUNTY, PA	151	18	\$729,540,637.10	1.00%	89.64%
DALLAS COUNTY, TX	558	147	\$691,837,546.68	0.95%	90.59%
FAIRFAX COUNTY, VA	402	70	\$608,348,592.86	0.84%	91.43%
GALVESTON COUNTY, TX	4	4	\$371,934,727.38	0.51%	91.94%
SAN DIEGO COUNTY, CA	401	127	\$220,933,198.94	0.30%	92.24%
ALBANY COUNTY, NY	959	122	\$215,135,719.68	0.30%	92.54%
TARRANT COUNTY, TX	69	31	\$201,927,626.36	0.28%	92.82%
LOUDOUN COUNTY, VA	328	88	\$167,019,993.19	0.23%	93.05%
MARICOPA COUNTY, AZ	380	89	\$166,562,166.82	0.23%	93.28%
SUFFOLK COUNTY, MA	178	72	\$152,240,381.27	0.21%	93.49%
SAN FRANCISCO COUNTY, CA	139	55	\$150,115,118.49	0.21%	93.69%
CAYUGA COUNTY, NY	20	8	\$146,460,201.74	0.20%	93.89%
SAN BERNARDINO COUNTY, CA	92	25	\$144,865,873.80	0.20%	94.09%
GALLATIN COUNTY, MT	6	5	\$139,122,241.24	0.19%	94.29%
MECKLENBURG COUNTY, NC	1368	43	\$136,216,336.53	0.19%	94.47%
DAVIDSON COUNTY, TN	33	18	\$128,112,782.19	0.18%	94.65%
NORFOLK CITY COUNTY, VA	36	11	\$126,017,297.11	0.17%	94.82%
PHILADELPHIA COUNTY, PA	405	109	\$117,057,955.67	0.16%	94.98%
SENECA COUNTY, NY	27	4	\$110,988,994.17	0.15%	95.14%
GWINNETT COUNTY, GA	60	38	\$109,612,198.84	0.15%	95.29%
LIVINGSTON COUNTY, LA	29	4	\$107,300,258.50	0.15%	95.43%
BROWARD COUNTY, FL	255	72	\$97,539,643.60	0.13%	95.57%
ORANGE COUNTY, FL	70	27	\$91,584,929.38	0.13%	95.69%
LAFOURCHE COUNTY, LA	1	1	\$91,010,527.00	0.13%	95.82%
FAIRFIELD COUNTY, CT	481	134	\$88,376,516.35	0.12%	95.94%
JACKSON COUNTY, MO	41	17	\$75,534,280.11	0.10%	96.05%
KALAMAZOO COUNTY, MI	24	5	\$70,903,517.02	0.10%	96.14%
FULTON COUNTY, GA	850	133	\$67,382,154.15	0.09%	96.24%
ERIE COUNTY, NY	485	95	\$64,475,949.01	0.09%	96.32%

APPENDIX A: DETAILED MARKET AREA ANALYSES

COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
DUPAGE COUNTY, IL	477	74	\$63,795,437.96	0.09%	96.41%
ALLEGHENY COUNTY, PA	654	82	\$62,264,688.70	0.09%	96.50%
SAINT LOUIS CITY COUNTY, MO	168	27	\$61,314,952.22	0.08%	96.58%
SARATOGA COUNTY, NY	78	30	\$61,113,499.68	0.08%	96.67%
KING COUNTY, WA	336	110	\$60,569,763.45	0.08%	96.75%
CARBON COUNTY, PA	16	3	\$59,629,395.71	0.08%	96.83%
LOS ANGELES COUNTY, CA	959	259	\$57,217,712.89	0.08%	96.91%
BAY COUNTY, FL	4	4	\$56,502,569.16	0.08%	96.99%
MONROE COUNTY, NY	1022	103	\$49,536,812.63	0.07%	97.06%
VIRGINIA BEACH CITY COUNTY, VA	299	21	\$47,418,845.75	0.07%	97.12%
CHESTER COUNTY, PA	141	49	\$46,796,459.35	0.06%	97.19%
MANATEE COUNTY, FL	18	5	\$45,854,516.35	0.06%	97.25%
LIBERTY COUNTY, GA	11	1	\$45,629,909.50	0.06%	97.31%
CLACKAMAS COUNTY, OR	69	36	\$44,206,646.63	0.06%	97.37%
HENNEPIN COUNTY, MN	472	119	\$44,039,641.82	0.06%	97.43%
MONTEREY COUNTY, CA	245	10	\$43,936,878.65	0.06%	97.49%
MERCER COUNTY, NJ	224	64	\$43,012,420.70	0.06%	97.55%
MONTGOMERY COUNTY, MD	245	84	\$42,880,269.37	0.06%	97.61%
LACKAWANNA COUNTY, PA	62	13	\$41,059,037.58	0.06%	97.67%
HAMILTON COUNTY, OH	184	47	\$40,925,113.46	0.06%	97.72%
ULSTER COUNTY, NY	432	149	\$39,485,511.04	0.05%	97.78%
ARAPAHOE COUNTY, CO	180	57	\$39,123,792.17	0.05%	97.83%
MIDDLESEX COUNTY, MA	465	167	\$39,040,423.19	0.05%	97.89%
BURLINGTON COUNTY, NJ	365	67	\$38,408,356.11	0.05%	97.94%
MILWAUKEE COUNTY, WI	128	36	\$36,821,002.54	0.05%	97.99%
SACRAMENTO COUNTY, CA	83	31	\$36,268,225.14	0.05%	98.04%
FREDERICK COUNTY, MD	61	22	\$32,172,041.66	0.04%	98.08%
MONTGOMERY COUNTY, PA	380	91	\$31,945,978.39	0.04%	98.13%
BOULDER COUNTY, CO	154	34	\$31,608,692.24	0.04%	98.17%
HARRIS COUNTY, TX	237	92	\$31,475,858.29	0.04%	98.22%
DELAWARE COUNTY, NY	109	73	\$30,986,849.93	0.04%	98.26%
ONONDAGA COUNTY, NY	252	68	\$30,775,894.55	0.04%	98.30%
CUYAHOGA COUNTY, OH	169	49	\$29,606,253.92	0.04%	98.34%
LUZERNE COUNTY, PA	62	16	\$26,905,021.81	0.04%	98.38%
CANADA	279	97	\$26,209,185.21	0.04%	98.41%
NEW HAVEN COUNTY, CT	452	121	\$24,005,627.95	0.03%	98.45%
RICHMOND CITY COUNTY, VA	285	28	\$22,989,561.49	0.03%	98.48%
ANNE ARUNDEL COUNTY, MD	81	22	\$22,857,501.38	0.03%	98.51%
GREENE COUNTY, NY	119	47	\$22,341,129.24	0.03%	98.54%
HARTFORD COUNTY, CT	233	79	\$22,256,940.43	0.03%	98.57%
BROOME COUNTY, NY	149	19	\$22,249,690.09	0.03%	98.60%
CASS COUNTY, ND	22	3	\$21,710,989.68	0.03%	98.63%
BRISTOL COUNTY, MA	99	28	\$21,586,027.09	0.03%	98.66%
WASHINGTON COUNTY, PA	18	10	\$20,496,174.98	0.03%	98.69%
TRAVIS COUNTY, TX	186	61	\$20,464,989.24	0.03%	98.72%
DUVAL COUNTY, FL	136	20	\$20,028,296.02	0.03%	98.75%
WAYNE COUNTY, MI	141	37	\$19,608,245.15	0.03%	98.77%
MONTGOMERY COUNTY, OH	40	14	\$18,717,509.29	0.03%	98.80%
SALT LAKE COUNTY, UT	203	41	\$18,267,602.53	0.03%	98.82%
BEXAR COUNTY, TX	80	31	\$18,033,319.39	0.02%	98.85%
PALM BEACH COUNTY, FL	239	60	\$17,553,110.31	0.02%	98.87%
SUMMIT COUNTY, OH	68	15	\$17,364,816.48	0.02%	98.90%
NEW LONDON COUNTY, CT	314	25	\$16,320,149.91	0.02%	98.92%
SCHOHARIE COUNTY, NY	25	8	\$16,169,131.78	0.02%	98.94%
JEFFERSON COUNTY, MO	15	4	\$15,758,346.54	0.02%	98.96%
SAN MATEO COUNTY, CA	153	42	\$15,315,837.41	0.02%	98.98%
MADISON COUNTY, NY	14	5	\$14,798,437.80	0.02%	99.00%
EAST BATON ROUGE COUNTY, LA	29	8	\$14,744,276.52	0.02%	99.02%
DELAWARE COUNTY, PA	78	34	\$13,969,453.06	0.02%	99.04%
GUILFORD COUNTY, NC	119	13	\$13,448,458.04	0.02%	99.06%
ESSEX COUNTY, MA	131	47	\$13,131,841.13	0.02%	99.08%

APPENDIX A: DETAILED MARKET AREA ANALYSES

COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
CECIL COUNTY, MD	5	3	\$13,058,855.25	0.02%	99.10%
SAINT LOUIS COUNTY, MO	71	31	\$12,915,765.64	0.02%	99.12%
BALTIMORE CITY COUNTY, MD	217	49	\$12,898,059.27	0.02%	99.13%
NEZ PERCE COUNTY, ID	53	2	\$12,371,420.46	0.02%	99.15%
SANTA BARBARA COUNTY, CA	93	26	\$12,119,222.60	0.02%	99.17%
ORANGE COUNTY, CA	400	136	\$12,107,548.61	0.02%	99.18%
PEORIA COUNTY, IL	5	3	\$11,679,218.77	0.02%	99.20%
RIVERSIDE COUNTY, CA	82	33	\$11,267,098.28	0.02%	99.22%
WORCESTER COUNTY, MA	202	25	\$11,184,666.70	0.02%	99.23%
YORK COUNTY, PA	154	21	\$11,183,896.00	0.02%	99.25%
BONNEVILLE COUNTY, ID	3	1	\$11,045,986.00	0.02%	99.26%
WALTON COUNTY, GA	8	4	\$10,607,882.84	0.01%	99.28%
NORFOLK COUNTY, MA	70	36	\$10,262,783.60	0.01%	99.29%
MARION COUNTY, FL	14	4	\$10,236,106.51	0.01%	99.30%
MINNEHAHA COUNTY, SD	118	5	\$10,218,128.22	0.01%	99.32%
KNOX COUNTY, TN	37	14	\$10,176,394.99	0.01%	99.33%
LARIMER COUNTY, CO	29	17	\$10,153,566.49	0.01%	99.35%
KITSAP COUNTY, WA	44	6	\$9,999,461.92	0.01%	99.36%
SANTA CLARA COUNTY, CA	235	88	\$9,841,825.21	0.01%	99.37%
LEE COUNTY, IL	7	2	\$9,582,476.13	0.01%	99.39%
MAHONING COUNTY, OH	12	7	\$9,280,530.08	0.01%	99.40%
DISTRICT OF COLUMBIA, DC	112	56	\$9,077,346.24	0.01%	99.41%
GLOUCESTER COUNTY, NJ	177	18	\$8,844,968.88	0.01%	99.42%
BERKS COUNTY, PA	61	18	\$8,726,808.37	0.01%	99.44%
AUSTIN COUNTY, TX	1	1	\$8,562,485.00	0.01%	99.45%
LEON COUNTY, FL	25	12	\$8,464,614.74	0.01%	99.46%
MIAMI-DADE COUNTY, FL	155	53	\$8,167,656.42	0.01%	99.47%
ALAMEDA COUNTY, CA	194	63	\$8,138,083.32	0.01%	99.48%
SULLIVAN COUNTY, NY	128	46	\$8,049,214.90	0.01%	99.49%
PIMA COUNTY, AZ	67	19	\$7,833,532.71	0.01%	99.50%
CUMBERLAND COUNTY, ME	24	14	\$7,681,979.25	0.01%	99.51%
RACINE COUNTY, WI	40	3	\$7,363,735.33	0.01%	99.52%
LANCASTER COUNTY, PA	82	14	\$7,207,074.59	0.01%	99.53%
DOUGLAS COUNTY, KS	9	1	\$7,124,817.54	0.01%	99.54%
STARK COUNTY, OH	55	16	\$6,709,646.15	0.01%	99.55%
SONOMA COUNTY, CA	49	14	\$6,537,121.02	0.01%	99.56%
BUCKS COUNTY, PA	198	55	\$6,450,143.93	0.01%	99.57%
CANYON COUNTY, ID	4	2	\$6,232,673.56	0.01%	99.58%
LA PORTE COUNTY, IN	12	5	\$6,029,733.39	0.01%	99.59%
TALBOT COUNTY, MD	30	5	\$5,968,523.30	0.01%	99.60%
LAKE COUNTY, IL	254	42	\$5,793,972.98	0.01%	99.60%
VENTURA COUNTY, CA	39	18	\$5,763,071.64	0.01%	99.61%
JEFFERSON COUNTY, NY	34	5	\$5,569,599.61	0.01%	99.62%
QUEEN ANNES COUNTY, MD	22	5	\$5,400,313.24	0.01%	99.63%
BALTIMORE COUNTY, MD	45	19	\$5,315,087.09	0.01%	99.63%
MACON COUNTY, IL	51	4	\$5,128,848.63	0.01%	99.64%
HOUSTON COUNTY, AL	19	3	\$5,072,057.71	0.01%	99.65%
BARNSTABLE COUNTY, MA	16	9	\$5,070,201.50	0.01%	99.66%
PLYMOUTH COUNTY, MA	140	23	\$5,034,321.01	0.01%	99.66%
FULTON COUNTY, NY	6	2	\$4,756,144.80	0.01%	99.67%
CAMDEN COUNTY, NJ	191	37	\$4,716,108.03	0.01%	99.68%
LIVINGSTON COUNTY, NY	1	1	\$4,692,826.36	0.01%	99.68%
ANTRIM COUNTY, MI	6	2	\$4,561,061.90	0.01%	99.69%
CLARK COUNTY, NV	42	25	\$4,414,003.01	0.01%	99.69%
SANTA CRUZ COUNTY, CA	102	9	\$4,369,603.48	0.01%	99.70%
CHARLESTON COUNTY, SC	74	17	\$4,306,309.20	0.01%	99.71%
HENDERSON COUNTY, NC	5	4	\$4,271,960.53	0.01%	99.71%
MEDINA COUNTY, OH	4	4	\$4,252,596.66	0.01%	99.72%
RENSSELAER COUNTY, NY	53	20	\$4,223,884.77	0.01%	99.72%
THURSTON COUNTY, WA	15	6	\$4,161,144.66	0.01%	99.73%
GREENVILLE COUNTY, SC	33	11	\$4,039,659.10	0.01%	99.74%

APPENDIX A: DETAILED MARKET AREA ANALYSES

COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
CONTRA COSTA COUNTY, CA	77	23	\$3,647,010.08	0.01%	99.74%
GRAFTON COUNTY, NH	35	9	\$3,560,005.36	0.00%	99.75%
MIAMI COUNTY, KS	36	13	\$3,420,039.27	0.00%	99.75%
SCHENECTADY COUNTY, NY	24	18	\$3,386,639.68	0.00%	99.75%
ONEIDA COUNTY, NY	78	17	\$3,349,999.14	0.00%	99.76%
SAINT LOUIS COUNTY, MN	3	3	\$3,140,297.21	0.00%	99.76%
SAINT LAWRENCE COUNTY, NY	19	7	\$2,830,706.80	0.00%	99.77%
CARROLL COUNTY, MD	12	6	\$2,802,732.05	0.00%	99.77%
WARREN COUNTY, NJ	68	24	\$2,706,021.68	0.00%	99.77%
HOWARD COUNTY, MD	90	21	\$2,664,265.37	0.00%	99.78%
ORANGE COUNTY, NC	26	11	\$2,652,670.33	0.00%	99.78%
FAYETTE COUNTY, PA	25	2	\$2,477,872.31	0.00%	99.79%
OTSEGO COUNTY, NY	16	11	\$2,442,879.33	0.00%	99.79%
MARIN COUNTY, CA	28	19	\$2,369,588.32	0.00%	99.79%
MONROE COUNTY, PA	73	11	\$2,362,676.52	0.00%	99.80%
ONTARIO COUNTY, NY	57	18	\$2,254,115.81	0.00%	99.80%
HIGHLANDS COUNTY, FL	27	3	\$2,248,383.29	0.00%	99.80%
JEFFERSON COUNTY, CO	74	17	\$2,206,092.55	0.00%	99.80%
ESCAMBIA COUNTY, FL	13	7	\$2,193,436.83	0.00%	99.81%
TALLAPOOSA COUNTY, AL	29	1	\$2,146,030.30	0.00%	99.81%
SUMNER COUNTY, TN	2	2	\$2,141,525.24	0.00%	99.81%
RICHLAND COUNTY, SC	10	7	\$2,129,451.58	0.00%	99.82%
RAMSEY COUNTY, MN	24	16	\$2,114,161.31	0.00%	99.82%
HAMPSHIRE COUNTY, MA	18	10	\$2,065,502.41	0.00%	99.82%
HILLSBOROUGH COUNTY, NH	57	26	\$1,990,466.55	0.00%	99.83%
MARION COUNTY, IN	76	21	\$1,911,527.93	0.00%	99.83%
JOHNSON COUNTY, KS	185	33	\$1,824,714.52	0.00%	99.83%
BERKSHIRE COUNTY, MA	65	8	\$1,824,472.39	0.00%	99.83%
COLLIN COUNTY, TX	32	11	\$1,817,239.12	0.00%	99.84%
WILLIAMSON COUNTY, TN	25	14	\$1,767,908.31	0.00%	99.84%
BUNCOMBE COUNTY, NC	14	9	\$1,762,525.26	0.00%	99.84%
SHELBY COUNTY, TN	36	14	\$1,713,656.34	0.00%	99.84%
MIDDLESEX COUNTY, CT	60	27	\$1,679,786.73	0.00%	99.84%
LA PLATA COUNTY, CO	38	5	\$1,678,004.26	0.00%	99.85%
TOMPKINS COUNTY, NY	57	13	\$1,669,600.72	0.00%	99.85%
WILL COUNTY, IL	54	7	\$1,626,251.45	0.00%	99.85%
WAUKESHA COUNTY, WI	31	18	\$1,598,263.81	0.00%	99.85%
SANGAMON COUNTY, IL	9	3	\$1,560,788.53	0.00%	99.86%
FORSYTH COUNTY, GA	77	5	\$1,545,015.54	0.00%	99.86%
WESTMORELAND COUNTY, PA	21	15	\$1,530,917.28	0.00%	99.86%
WAKE COUNTY, NC	180	34	\$1,468,881.59	0.00%	99.86%
NEW HANOVER COUNTY, NC	9	6	\$1,465,726.31	0.00%	99.86%
DANE COUNTY, WI	268	29	\$1,440,088.56	0.00%	99.87%
CUMBERLAND COUNTY, NJ	72	8	\$1,411,604.63	0.00%	99.87%
FRANKLIN COUNTY, OH	70	41	\$1,400,490.20	0.00%	99.87%
PRINCE GEORGES COUNTY, MD	66	26	\$1,390,150.16	0.00%	99.87%
HARRISONBURG CITY COUNTY, VA	22	3	\$1,356,033.39	0.00%	99.87%
WINNEBAGO COUNTY, WI	74	6	\$1,342,985.28	0.00%	99.88%
POLK COUNTY, IA	10	8	\$1,329,385.65	0.00%	99.88%
LANE COUNTY, OR	46	11	\$1,289,186.42	0.00%	99.88%
NORTHAMPTON COUNTY, PA	40	17	\$1,248,793.65	0.00%	99.88%
HAMPDEN COUNTY, MA	86	23	\$1,237,820.95	0.00%	99.88%
NEWPORT COUNTY, RI	57	8	\$1,150,311.91	0.00%	99.88%
FREDERICKSBURG CITY COUNTY, VA	51	11	\$1,149,023.92	0.00%	99.89%
PROVIDENCE COUNTY, RI	66	24	\$1,144,539.13	0.00%	99.89%
HILLSBOROUGH COUNTY, FL	133	42	\$1,142,916.60	0.00%	99.89%
ATLANTIC COUNTY, NJ	57	9	\$1,071,790.43	0.00%	99.89%
SEDGWICK COUNTY, KS	22	14	\$1,066,272.52	0.00%	99.89%
WARREN COUNTY, NY	21	8	\$1,063,005.86	0.00%	99.89%
CHESAPEAKE CITY COUNTY, VA	27	12	\$1,060,982.77	0.00%	99.89%
NELSON COUNTY, VA	37	1	\$1,050,584.94	0.00%	99.90%

APPENDIX A: DETAILED MARKET AREA ANALYSES

COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
CLATSOP COUNTY, OR	1	1	\$994,880.76	0.00%	99.90%
ANDERSON COUNTY, TN	22	6	\$987,023.60	0.00%	99.90%
MONTGOMERY COUNTY, NY	31	7	\$985,657.59	0.00%	99.90%
ORLEANS COUNTY, LA	20	2	\$982,516.75	0.00%	99.90%
MCKEAN COUNTY, PA	4	2	\$965,970.00	0.00%	99.90%
JEFFERSON COUNTY, KY	42	12	\$960,913.69	0.00%	99.90%
WASHTENAW COUNTY, MI	33	15	\$943,233.75	0.00%	99.91%
DARKE COUNTY, OH	108	12	\$938,639.39	0.00%	99.91%
ADAMS COUNTY, PA	17	6	\$921,445.45	0.00%	99.91%
LITCHFIELD COUNTY, CT	84	20	\$854,504.42	0.00%	99.91%
NEW CASTLE COUNTY, DE	65	25	\$851,054.56	0.00%	99.91%
OAKLAND COUNTY, MI	49	27	\$805,332.06	0.00%	99.91%
VANDERBURGH COUNTY, IN	16	7	\$803,077.75	0.00%	99.91%
YORK COUNTY, ME	22	5	\$783,280.18	0.00%	99.91%
BREVARD COUNTY, FL	26	13	\$774,457.71	0.00%	99.91%
PORTSMOUTH CITY COUNTY, VA	2	1	\$771,495.00	0.00%	99.92%
KANE COUNTY, IL	49	14	\$754,158.05	0.00%	99.92%
ANDROSCOGGIN COUNTY, ME	9	4	\$753,587.50	0.00%	99.92%
ROCKINGHAM COUNTY, NC	6	3	\$753,191.00	0.00%	99.92%
MANASSAS CITY COUNTY, VA	4	4	\$711,324.77	0.00%	99.92%
SEMINOLE COUNTY, FL	33	13	\$710,144.88	0.00%	99.92%
RICHLAND COUNTY, OH	2	2	\$705,970.00	0.00%	99.92%
SUSSEX COUNTY, DE	13	4	\$682,968.97	0.00%	99.92%
COLUMBIA COUNTY, NY	17	8	\$673,718.12	0.00%	99.92%
FAYETTE COUNTY, IN	1	1	\$672,100.00	0.00%	99.92%
PRINCE WILLIAM COUNTY, VA	7	6	\$654,488.46	0.00%	99.93%
KENT COUNTY, DE	7	2	\$605,233.17	0.00%	99.93%
RIPLEY COUNTY, IN	6	1	\$589,592.94	0.00%	99.93%
DENTON COUNTY, TX	47	7	\$587,584.77	0.00%	99.93%
KENT COUNTY, MI	54	10	\$583,580.61	0.00%	99.93%
VOLUSIA COUNTY, FL	13	8	\$581,709.78	0.00%	99.93%
WASHINGTON COUNTY, RI	33	9	\$578,225.00	0.00%	99.93%
DORCHESTER COUNTY, MD	6	1	\$566,917.04	0.00%	99.93%
SARASOTA COUNTY, FL	40	16	\$566,612.08	0.00%	99.93%
MONTGOMERY COUNTY, TX	27	11	\$556,179.51	0.00%	99.93%
CALHOUN COUNTY, AL	1	1	\$543,500.00	0.00%	99.93%
WINDHAM COUNTY, CT	13	2	\$539,638.02	0.00%	99.93%
ROCKINGHAM COUNTY, NH	34	16	\$537,284.67	0.00%	99.94%
UTAH COUNTY, UT	56	28	\$530,706.56	0.00%	99.94%
DOUGLAS COUNTY, CO	52	9	\$525,574.61	0.00%	99.94%
SAINT LUCIE COUNTY, FL	20	8	\$521,997.18	0.00%	99.94%
HINDS COUNTY, MS	162	7	\$502,455.71	0.00%	99.94%
PAYNE COUNTY, OK	11	4	\$500,657.28	0.00%	99.94%
DAVIS COUNTY, UT	11	7	\$488,259.03	0.00%	99.94%
PINELLAS COUNTY, FL	49	24	\$485,191.84	0.00%	99.94%
WILLIAMSON COUNTY, TX	66	9	\$477,713.72	0.00%	99.94%
FRESNO COUNTY, CA	31	6	\$468,955.97	0.00%	99.94%
SNOHOMISH COUNTY, WA	45	19	\$467,373.61	0.00%	99.94%
WASHINGTON COUNTY, MN	11	3	\$451,926.64	0.00%	99.94%
CHITTENDEN COUNTY, VT	14	9	\$451,456.30	0.00%	99.94%
DEKALB COUNTY, GA	20	11	\$441,725.68	0.00%	99.94%
EL PASO COUNTY, CO	39	14	\$439,898.60	0.00%	99.94%
BROWN COUNTY, WI	34	7	\$436,698.18	0.00%	99.95%
PUEBLO COUNTY, CO	10	2	\$429,639.44	0.00%	99.95%
KAUFMAN COUNTY, TX	1	1	\$427,592.94	0.00%	99.95%
BRISTOL CITY COUNTY, VA	3	1	\$414,666.00	0.00%	99.95%
BRISTOL COUNTY, RI	28	7	\$412,813.45	0.00%	99.95%
PENOBSCOT COUNTY, ME	1	1	\$411,800.00	0.00%	99.95%
DOUGLAS COUNTY, GA	2	2	\$400,980.00	0.00%	99.95%
PLACER COUNTY, CA	24	7	\$393,671.21	0.00%	99.95%
DAUPHIN COUNTY, PA	17	14	\$390,928.60	0.00%	99.95%

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COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
ANOKA COUNTY, MN	21	5	\$380,111.31	0.00%	99.95%
MORGAN COUNTY, UT	6	2	\$376,162.17	0.00%	99.95%
MERRIMACK COUNTY, NH	22	11	\$371,120.22	0.00%	99.95%
FRANKLIN COUNTY, NY	5	4	\$369,470.50	0.00%	99.95%
LAUDERDALE COUNTY, MS	17	3	\$362,495.00	0.00%	99.95%
MIAMI COUNTY, OH	63	4	\$348,118.21	0.00%	99.95%
LAKE COUNTY, OH	17	10	\$347,153.81	0.00%	99.95%
HARFORD COUNTY, MD	21	8	\$342,664.96	0.00%	99.95%
ERIE COUNTY, PA	18	11	\$335,529.80	0.00%	99.95%
SANDOVAL COUNTY, NM	3	1	\$333,418.95	0.00%	99.95%
IBERIA COUNTY, LA	1	1	\$332,469.81	0.00%	99.95%
ROBERTSON COUNTY, TN	14	1	\$330,871.34	0.00%	99.96%
BUTTE COUNTY, CA	16	4	\$329,720.43	0.00%	99.96%
KENT COUNTY, RI	26	9	\$324,896.66	0.00%	99.96%
KENTON COUNTY, KY	8	5	\$321,267.00	0.00%	99.96%
CLERMONT COUNTY, OH	17	4	\$320,228.24	0.00%	99.96%
PIERCE COUNTY, WA	19	8	\$316,906.53	0.00%	99.96%
SPOKANE COUNTY, WA	21	8	\$313,318.60	0.00%	99.96%
CHARLES COUNTY, MD	3	3	\$312,161.00	0.00%	99.96%
WAYNE COUNTY, NY	11	6	\$311,965.73	0.00%	99.96%
INDIAN RIVER COUNTY, FL	26	6	\$308,018.09	0.00%	99.96%
CLINTON COUNTY, NY	21	7	\$304,084.73	0.00%	99.96%
SHELBY COUNTY, IA	3	2	\$287,376.28	0.00%	99.96%
DAVISS COUNTY, KY	43	4	\$284,113.87	0.00%	99.96%
CALHOUN COUNTY, MI	6	1	\$279,988.85	0.00%	99.96%
IREDELL COUNTY, NC	2	2	\$279,024.00	0.00%	99.96%
CATTARAUGUS COUNTY, NY	3	2	\$275,000.00	0.00%	99.96%
KNOX COUNTY, ME	5	5	\$274,650.00	0.00%	99.96%
CARVER COUNTY, MN	15	7	\$272,709.06	0.00%	99.96%
DAKOTA COUNTY, MN	52	8	\$268,576.71	0.00%	99.96%
GENESEE COUNTY, MI	337	6	\$264,085.69	0.00%	99.96%
MARTIN COUNTY, FL	7	5	\$262,983.00	0.00%	99.96%
BUTLER COUNTY, PA	19	6	\$260,685.09	0.00%	99.96%
FORREST COUNTY, MS	5	1	\$258,975.00	0.00%	99.96%
HARNETT COUNTY, NC	6	1	\$254,337.60	0.00%	99.96%
SOMERSET COUNTY, PA	5	1	\$250,000.00	0.00%	99.96%
OVERSEAS COUNTRY	28	13	\$249,744.14	0.00%	99.97%
GLOUCESTER COUNTY, VA	7	3	\$240,674.85	0.00%	99.97%
SALEM CITY COUNTY, VA	6	2	\$240,400.00	0.00%	99.97%
AIKEN COUNTY, SC	66	2	\$239,226.49	0.00%	99.97%
WARREN COUNTY, OH	15	7	\$238,784.21	0.00%	99.97%
NIAGARA COUNTY, NY	13	3	\$238,746.90	0.00%	99.97%
MCMINN COUNTY, TN	1	1	\$238,370.00	0.00%	99.97%
OKLAHOMA COUNTY, OK	23	8	\$238,198.63	0.00%	99.97%
WASHINGTON COUNTY, OR	38	14	\$238,012.77	0.00%	99.97%
RICE COUNTY, MN	23	6	\$235,355.40	0.00%	99.97%
SAUK COUNTY, WI	16	4	\$235,288.07	0.00%	99.97%
HERKIMER COUNTY, NY	12	5	\$233,590.60	0.00%	99.97%
HENRICO COUNTY, VA	6	2	\$230,395.45	0.00%	99.97%
STRAFFORD COUNTY, NH	10	7	\$230,382.79	0.00%	99.97%
TOLLAND COUNTY, CT	45	7	\$227,397.01	0.00%	99.97%
DUBUQUE COUNTY, IA	8	4	\$224,591.68	0.00%	99.97%
ELKHART COUNTY, IN	9	5	\$223,459.38	0.00%	99.97%
SUMMIT COUNTY, UT	5	4	\$222,244.48	0.00%	99.97%
TIOGA COUNTY, NY	3	1	\$215,661.00	0.00%	99.97%
MONTGOMERY COUNTY, VA	3	2	\$214,800.00	0.00%	99.97%
GREENE COUNTY, MO	13	5	\$211,885.74	0.00%	99.97%
LEE COUNTY, FL	17	7	\$209,958.39	0.00%	99.97%
DURHAM COUNTY, NC	32	16	\$209,882.71	0.00%	99.97%
COCONINO COUNTY, AZ	3	2	\$207,000.00	0.00%	99.97%
HANOVER COUNTY, VA	2	1	\$206,951.00	0.00%	99.97%

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COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
CHEMUNG COUNTY, NY	17	4	\$201,784.30	0.00%	99.97%
GENESEEE COUNTY, NY	1	1	\$200,880.00	0.00%	99.97%
INGHAM COUNTY, MI	31	10	\$198,139.39	0.00%	99.97%
CHEYENNE COUNTY, NE	48	3	\$195,285.28	0.00%	99.97%
WINNEBAGO COUNTY, IL	11	3	\$191,224.11	0.00%	99.97%
COLE COUNTY, MO	8	4	\$186,371.00	0.00%	99.97%
MADISON COUNTY, IL	3	1	\$185,934.86	0.00%	99.97%
GLYNN COUNTY, GA	16	4	\$184,167.49	0.00%	99.97%
WASHOE COUNTY, NV	31	6	\$182,747.32	0.00%	99.98%
OTTAWA COUNTY, MI	17	4	\$182,277.74	0.00%	99.98%
WINDSOR COUNTY, VT	7	4	\$179,774.00	0.00%	99.98%
PIERCE COUNTY, WI	6	2	\$175,493.50	0.00%	99.98%
CACHE COUNTY, UT	20	8	\$173,817.19	0.00%	99.98%
POPE COUNTY, MN	12	2	\$172,964.00	0.00%	99.98%
STEUBEN COUNTY, NY	7	3	\$172,163.34	0.00%	99.98%
MOORE COUNTY, NC	8	3	\$171,866.68	0.00%	99.98%
HAYWOOD COUNTY, NC	4	2	\$171,098.00	0.00%	99.98%
MARION COUNTY, OR	3	2	\$167,423.00	0.00%	99.98%
RUTHERFORD COUNTY, NC	4	1	\$166,764.90	0.00%	99.98%
JEFFERSON COUNTY, LA	8	4	\$164,785.97	0.00%	99.98%
DUBOIS COUNTY, IN	10	4	\$162,312.60	0.00%	99.98%
CRAWFORD COUNTY, IA	4	1	\$161,216.50	0.00%	99.98%
TAYLOR COUNTY, FL	31	3	\$161,150.92	0.00%	99.98%
JEFFERSON COUNTY, AL	22	5	\$159,870.73	0.00%	99.98%
WEBER COUNTY, UT	5	3	\$159,703.32	0.00%	99.98%
LORAIN COUNTY, OH	14	5	\$154,123.80	0.00%	99.98%
SCHLEY COUNTY, GA	4	2	\$153,023.64	0.00%	99.98%
SAINT TAMMANY COUNTY, LA	8	2	\$152,648.20	0.00%	99.98%
ALBEMARLE COUNTY, VA	11	4	\$152,115.10	0.00%	99.98%
TULSA COUNTY, OK	22	12	\$151,027.28	0.00%	99.98%
ALBANY COUNTY, WY	10	2	\$146,900.00	0.00%	99.98%
HALL COUNTY, GA	4	3	\$146,413.00	0.00%	99.98%
ANDERSON COUNTY, SC	25	3	\$142,169.61	0.00%	99.98%
NORTHAMPTON COUNTY, VA	2	2	\$141,480.84	0.00%	99.98%
JOHNSON COUNTY, IA	2	2	\$140,999.67	0.00%	99.98%
JEFFERSON COUNTY, WI	25	5	\$140,854.78	0.00%	99.98%
DAVIDSON COUNTY, NC	6	1	\$139,137.70	0.00%	99.98%
HORRY COUNTY, SC	3	3	\$136,901.00	0.00%	99.98%
BRAZOS COUNTY, TX	18	6	\$136,234.35	0.00%	99.98%
CLARK COUNTY, WA	10	8	\$133,428.96	0.00%	99.98%
CHAFFEE COUNTY, CO	5	1	\$133,074.46	0.00%	99.98%
POPE COUNTY, AR	6	2	\$131,515.00	0.00%	99.98%
ADA COUNTY, ID	13	7	\$129,385.70	0.00%	99.98%
POWESHIEK COUNTY, IA	46	2	\$125,939.13	0.00%	99.98%
COBB COUNTY, GA	28	17	\$125,109.33	0.00%	99.98%
FAYETTE COUNTY, TN	3	1	\$123,848.00	0.00%	99.98%
WHATCOM COUNTY, WA	13	7	\$123,039.98	0.00%	99.98%
FRANKLIN COUNTY, PA	10	2	\$122,639.80	0.00%	99.98%
MASON COUNTY, KY	13	3	\$122,626.43	0.00%	99.98%
LEE COUNTY, AL	5	3	\$121,921.89	0.00%	99.98%
YATES COUNTY, NY	3	2	\$120,826.13	0.00%	99.98%
MACOMB COUNTY, MI	26	8	\$119,430.57	0.00%	99.98%
BERRIEN COUNTY, MI	12	6	\$118,404.17	0.00%	99.98%
OCONEE COUNTY, GA	2	2	\$117,515.00	0.00%	99.98%
WASHINGTON COUNTY, NY	2	2	\$117,089.59	0.00%	99.98%
DAWSON COUNTY, GA	3	1	\$116,374.72	0.00%	99.98%
FAYETTE COUNTY, GA	5	3	\$115,252.92	0.00%	99.98%
TELLER COUNTY, CO	10	2	\$114,040.00	0.00%	99.98%
EL PASO COUNTY, TX	4	3	\$111,887.04	0.00%	99.99%
CRAWFORD COUNTY, PA	14	3	\$110,808.85	0.00%	99.99%
ELBERT COUNTY, CO	8	1	\$109,133.61	0.00%	99.99%

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COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
PORTAGE COUNTY, WI	9	3	\$108,248.48	0.00%	99.99%
WICHITA COUNTY, TX	7	2	\$108,219.36	0.00%	99.99%
SOLANO COUNTY, CA	13	3	\$107,135.83	0.00%	99.99%
BRUNSWICK COUNTY, NC	11	4	\$106,201.41	0.00%	99.99%
FORT BEND COUNTY, TX	18	6	\$105,893.67	0.00%	99.99%
CUMBERLAND COUNTY, PA	39	12	\$104,518.94	0.00%	99.99%
FRANKLIN COUNTY, MA	13	1	\$101,230.06	0.00%	99.99%
MADISON COUNTY, MS	7	3	\$101,068.79	0.00%	99.99%
FRANKLIN COUNTY, AL	6	3	\$100,613.00	0.00%	99.99%
ALLEN COUNTY, OH	9	2	\$100,591.35	0.00%	99.99%
SULLIVAN COUNTY, NH	3	2	\$100,286.92	0.00%	99.99%
OLMSTED COUNTY, MN	15	3	\$99,092.31	0.00%	99.99%
CHESHIRE COUNTY, NH	11	6	\$98,803.39	0.00%	99.99%
WASHINGTON COUNTY, UT	2	1	\$98,600.00	0.00%	99.99%
BENTON COUNTY, OR	12	7	\$96,587.14	0.00%	99.99%
SENECA COUNTY, OH	6	2	\$95,688.50	0.00%	99.99%
LAKE COUNTY, FL	79	2	\$94,428.55	0.00%	99.99%
ALCORN COUNTY, MS	10	2	\$93,643.23	0.00%	99.99%
TIPPECANOE COUNTY, IN	9	5	\$92,536.98	0.00%	99.99%
ROCK COUNTY, WI	20	7	\$92,417.28	0.00%	99.99%
CATAWBA COUNTY, NC	3	1	\$91,730.00	0.00%	99.99%
GREENE COUNTY, OH	11	4	\$90,832.25	0.00%	99.99%
JEFFERSON COUNTY, PA	8	3	\$90,002.00	0.00%	99.99%
FRANKLIN COUNTY, VA	18	1	\$89,678.70	0.00%	99.99%
CHEROKEE COUNTY, GA	16	6	\$89,531.34	0.00%	99.99%
FAUQUIER COUNTY, VA	5	1	\$88,150.00	0.00%	99.99%
MARSHALL COUNTY, IN	3	1	\$87,524.78	0.00%	99.99%
PICKENS COUNTY, GA	6	1	\$86,975.50	0.00%	99.99%
CENTRE COUNTY, PA	17	7	\$86,368.87	0.00%	99.99%
MARATHON COUNTY, WI	9	5	\$85,595.23	0.00%	99.99%
NELSON COUNTY, KY	2	1	\$85,508.00	0.00%	99.99%
STEELE COUNTY, MN	15	1	\$84,580.90	0.00%	99.99%
BERNALILLO COUNTY, NM	26	14	\$84,308.80	0.00%	99.99%
SALINE COUNTY, AR	6	2	\$83,361.33	0.00%	99.99%
SCOTT COUNTY, MN	11	2	\$82,365.00	0.00%	99.99%
WOOD COUNTY, OH	9	3	\$81,685.70	0.00%	99.99%
MIDLAND COUNTY, MI	2	2	\$80,439.55	0.00%	99.99%
SHASTA COUNTY, CA	9	3	\$79,187.35	0.00%	99.99%
BENTON COUNTY, WA	7	3	\$79,063.00	0.00%	99.99%
CHARLOTTE COUNTY, FL	6	3	\$77,225.00	0.00%	99.99%
TUOLUMNE COUNTY, CA	7	3	\$77,171.56	0.00%	99.99%
HAMILTON COUNTY, TN	5	4	\$76,517.33	0.00%	99.99%
CRITTENDEN COUNTY, AR	11	2	\$76,411.00	0.00%	99.99%
ALACHUA COUNTY, FL	19	7	\$75,158.76	0.00%	99.99%
YAMHILL COUNTY, OR	1	1	\$75,117.30	0.00%	99.99%
COWLITZ COUNTY, WA	7	4	\$74,252.22	0.00%	99.99%
STANISLAUS COUNTY, CA	10	3	\$72,543.24	0.00%	99.99%
FAYETTE COUNTY, KY	5	2	\$69,502.09	0.00%	99.99%
SAINT CROIX COUNTY, WI	8	2	\$69,285.75	0.00%	99.99%
CORTLAND COUNTY, NY	6	1	\$67,831.85	0.00%	99.99%
UNION COUNTY, NC	9	4	\$67,719.94	0.00%	99.99%
THROCKMORTON COUNTY, TX	1	1	\$67,018.68	0.00%	99.99%
FORSYTH COUNTY, NC	17	7	\$64,013.68	0.00%	99.99%
WAYNE COUNTY, OH	6	4	\$63,840.37	0.00%	99.99%
RUTHERFORD COUNTY, TN	16	5	\$63,607.67	0.00%	99.99%
ALAMANCE COUNTY, NC	19	5	\$61,985.62	0.00%	99.99%
CHAUTAUQUA COUNTY, NY	12	4	\$60,391.18	0.00%	99.99%
HAMILTON COUNTY, IN	3	3	\$59,214.00	0.00%	99.99%
ANDERSON COUNTY, TX	7	2	\$58,199.00	0.00%	99.99%
WINONA COUNTY, MN	6	2	\$56,626.51	0.00%	99.99%
NOLAN COUNTY, TX	18	3	\$56,435.81	0.00%	99.99%

APPENDIX A: DETAILED MARKET AREA ANALYSES

COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
WYANDOTTE COUNTY, KS	6	2	\$55,623.00	0.00%	99.99%
DALE COUNTY, AL	2	1	\$55,531.75	0.00%	99.99%
SAINT MARYS COUNTY, MD	1	1	\$55,000.00	0.00%	99.99%
SAINT JOHNS COUNTY, FL	5	5	\$54,411.14	0.00%	99.99%
LINCOLN COUNTY, ME	2	2	\$52,454.00	0.00%	99.99%
SAN LUIS OBISPO COUNTY, CA	14	9	\$51,987.63	0.00%	99.99%
BLAIR COUNTY, PA	18	1	\$51,815.29	0.00%	99.99%
MUSCATINE COUNTY, IA	14	4	\$51,444.81	0.00%	99.99%
RICHMOND COUNTY, GA	10	4	\$51,362.80	0.00%	99.99%
SKAGIT COUNTY, WA	4	2	\$51,317.02	0.00%	99.99%
BENNINGTON COUNTY, VT	4	3	\$50,705.00	0.00%	99.99%
EAU CLAIRE COUNTY, WI	44	7	\$50,547.00	0.00%	99.99%
PHELPS COUNTY, MO	3	2	\$50,500.00	0.00%	99.99%
COLLIER COUNTY, FL	3	2	\$50,256.28	0.00%	99.99%
DADE COUNTY, GA	1	1	\$50,000.00	0.00%	99.99%
COLUMBIA COUNTY, GA	1	1	\$49,964.52	0.00%	99.99%
MERCER COUNTY, PA	5	4	\$48,727.00	0.00%	99.99%
POLK COUNTY, FL	6	4	\$48,373.00	0.00%	99.99%
DODGE COUNTY, WI	4	2	\$48,127.72	0.00%	99.99%
CHAMPAIGN COUNTY, IL	11	6	\$48,037.15	0.00%	99.99%
WARREN COUNTY, TN	3	2	\$47,041.10	0.00%	99.99%
MCHENRY COUNTY, IL	12	7	\$46,905.02	0.00%	99.99%
SURRY COUNTY, NC	4	3	\$46,000.00	0.00%	99.99%
LAFAYETTE COUNTY, LA	4	3	\$45,800.53	0.00%	99.99%
SUSQUEHANNA COUNTY, PA	7	2	\$45,351.81	0.00%	99.99%
SAINT CHARLES COUNTY, MO	8	1	\$45,261.99	0.00%	99.99%
CLARK COUNTY, IN	2	2	\$44,361.90	0.00%	99.99%
SMITH COUNTY, TX	12	6	\$44,054.09	0.00%	99.99%
KENNEBEC COUNTY, ME	13	3	\$43,969.12	0.00%	99.99%
MARIPOSA COUNTY, CA	6	2	\$43,767.53	0.00%	99.99%
INDIANA COUNTY, PA	5	2	\$42,819.89	0.00%	99.99%
JEFFERSON COUNTY, IA	7	2	\$42,398.76	0.00%	99.99%
JASPER COUNTY, MO	2	2	\$42,141.79	0.00%	99.99%
CARSON CITY COUNTY, NV	8	4	\$41,054.97	0.00%	99.99%
TUSCALOOSA COUNTY, AL	20	4	\$40,944.12	0.00%	99.99%
PORTAGE COUNTY, OH	10	5	\$40,365.02	0.00%	99.99%
JACKSON COUNTY, OR	6	4	\$40,200.24	0.00%	99.99%
KERN COUNTY, CA	3	3	\$40,088.97	0.00%	99.99%
AROOSTOOK COUNTY, ME	2	1	\$39,840.00	0.00%	99.99%
COOS COUNTY, NH	3	2	\$39,099.33	0.00%	99.99%
NASSAU COUNTY, FL	10	2	\$38,931.08	0.00%	100.00%
CARROLL COUNTY, NH	7	4	\$38,371.00	0.00%	100.00%
MADISON COUNTY, AL	1	1	\$37,500.00	0.00%	100.00%
WATAUGA COUNTY, NC	2	1	\$37,352.00	0.00%	100.00%
STORY COUNTY, IA	4	1	\$37,170.40	0.00%	100.00%
BLACK HAWK COUNTY, IA	2	2	\$37,132.50	0.00%	100.00%
UNION COUNTY, GA	9	2	\$36,786.72	0.00%	100.00%
WASHINGTON COUNTY, MD	5	5	\$36,227.04	0.00%	100.00%
MONROE COUNTY, IN	10	5	\$36,004.50	0.00%	100.00%
SCHUYLKILL COUNTY, PA	1	1	\$35,800.00	0.00%	100.00%
ORLEANS COUNTY, VT	2	1	\$35,763.22	0.00%	100.00%
ETOWAH COUNTY, AL	7	1	\$35,325.00	0.00%	100.00%
BROOMFIELD COUNTY, CO	6	4	\$35,316.32	0.00%	100.00%
SANTA FE COUNTY, NM	4	4	\$34,608.78	0.00%	100.00%
WAYNE COUNTY, IN	7	3	\$34,555.00	0.00%	100.00%
DOUGLAS COUNTY, NV	2	1	\$32,291.00	0.00%	100.00%
CHESTERFIELD COUNTY, VA	6	4	\$31,865.44	0.00%	100.00%
MERCER COUNTY, OH	3	2	\$31,845.20	0.00%	100.00%
SARPY COUNTY, NE	5	4	\$31,300.00	0.00%	100.00%
HARDIN COUNTY, KY	5	2	\$31,232.29	0.00%	100.00%
MORGAN COUNTY, IN	1	1	\$31,144.30	0.00%	100.00%

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COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
EDGECOMBE COUNTY, NC	3	1	\$30,025.00	0.00%	100.00%
JAMES CITY COUNTY, VA	3	3	\$29,866.12	0.00%	100.00%
KANKAKEE COUNTY, IL	7	1	\$29,765.54	0.00%	100.00%
ALLEGANY COUNTY, NY	2	1	\$29,500.00	0.00%	100.00%
HERNANDO COUNTY, FL	2	1	\$29,163.60	0.00%	100.00%
MECKLENBURG COUNTY, VA	5	2	\$28,779.32	0.00%	100.00%
HARRISON COUNTY, OH	2	1	\$28,700.00	0.00%	100.00%
CAPE MAY COUNTY, NJ	2	2	\$28,475.00	0.00%	100.00%
WHITMAN COUNTY, WA	6	1	\$27,859.36	0.00%	100.00%
CHAMPAIGN COUNTY, OH	1	1	\$27,518.08	0.00%	100.00%
LATAH COUNTY, ID	3	1	\$27,170.00	0.00%	100.00%
MONTGOMERY COUNTY, KY	7	1	\$27,081.00	0.00%	100.00%
DELAWARE COUNTY, OH	1	1	\$27,080.00	0.00%	100.00%
DESCHUTES COUNTY, OR	5	3	\$26,947.48	0.00%	100.00%
BARTHOLOMEW COUNTY, IN	1	1	\$26,897.04	0.00%	100.00%
CLARKE COUNTY, GA	7	2	\$26,391.00	0.00%	100.00%
SHELBY COUNTY, AL	3	3	\$26,285.00	0.00%	100.00%
GRANVILLE COUNTY, NC	5	3	\$26,235.07	0.00%	100.00%
GREENWOOD COUNTY, SC	20	2	\$26,187.49	0.00%	100.00%
KNOX COUNTY, IL	7	2	\$26,141.97	0.00%	100.00%
LINN COUNTY, IA	3	3	\$24,971.20	0.00%	100.00%
WEBB COUNTY, TX	1	1	\$24,900.00	0.00%	100.00%
UNION COUNTY, OH	1	1	\$24,250.00	0.00%	100.00%
CARROLL COUNTY, IL	2	2	\$24,218.00	0.00%	100.00%
BRADFORD COUNTY, PA	1	1	\$24,215.00	0.00%	100.00%
GRAVES COUNTY, KY	19	2	\$23,970.59	0.00%	100.00%
VENANGO COUNTY, PA	1	1	\$23,961.00	0.00%	100.00%
GEAUGA COUNTY, OH	1	1	\$23,760.00	0.00%	100.00%
BARRON COUNTY, WI	4	1	\$23,733.49	0.00%	100.00%
KANAWHA COUNTY, WV	4	2	\$23,694.60	0.00%	100.00%
ROCK ISLAND COUNTY, IL	5	4	\$23,175.60	0.00%	100.00%
ST JOSEPH COUNTY, IN	3	2	\$23,166.50	0.00%	100.00%
LIVINGSTON COUNTY, MI	4	3	\$22,711.00	0.00%	100.00%
MCLENNAN COUNTY, TX	5	3	\$22,530.18	0.00%	100.00%
SPOTSYLVANIA COUNTY, VA	3	1	\$22,470.00	0.00%	100.00%
OSWEGO COUNTY, NY	2	1	\$22,365.00	0.00%	100.00%
YORK COUNTY, SC	5	2	\$22,290.85	0.00%	100.00%
WARREN COUNTY, VA	4	2	\$22,124.29	0.00%	100.00%
CLEARFIELD COUNTY, PA	2	1	\$22,050.80	0.00%	100.00%
WINDHAM COUNTY, VT	6	5	\$21,787.82	0.00%	100.00%
HOLMES COUNTY, OH	7	2	\$21,615.35	0.00%	100.00%
BUTLER COUNTY, OH	3	3	\$21,354.00	0.00%	100.00%
FRANKLIN COUNTY, IN	1	1	\$20,500.00	0.00%	100.00%
CRAWFORD COUNTY, OH	1	1	\$19,967.94	0.00%	100.00%
CARBON COUNTY, UT	1	1	\$19,799.00	0.00%	100.00%
LAWRENCE COUNTY, IN	1	1	\$19,761.30	0.00%	100.00%
NEWPORT NEWS CITY COUNTY, VA	5	3	\$19,695.27	0.00%	100.00%
LAWRENCE COUNTY, PA	5	1	\$19,393.75	0.00%	100.00%
WALWORTH COUNTY, WI	2	2	\$19,304.00	0.00%	100.00%
IOSCO COUNTY, MI	5	1	\$19,262.50	0.00%	100.00%
CABELL COUNTY, WV	1	1	\$19,025.00	0.00%	100.00%
WILKES COUNTY, GA	4	1	\$18,622.00	0.00%	100.00%
IROQUOIS COUNTY, IL	1	1	\$18,573.00	0.00%	100.00%
PENDER COUNTY, NC	1	1	\$18,500.00	0.00%	100.00%
WINCHESTER CITY COUNTY, VA	1	1	\$18,500.00	0.00%	100.00%
IOWA COUNTY, WI	19	1	\$18,473.21	0.00%	100.00%
MOBILE COUNTY, AL	8	5	\$18,306.42	0.00%	100.00%
PITT COUNTY, NC	2	2	\$17,853.00	0.00%	100.00%
LANCASTER COUNTY, NE	4	3	\$17,666.35	0.00%	100.00%
HAMBLEN COUNTY, TN	2	2	\$17,572.00	0.00%	100.00%
JASPER COUNTY, IN	1	1	\$17,363.50	0.00%	100.00%

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COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
JOSEPHINE COUNTY, OR	8	3	\$17,322.50	0.00%	100.00%
ALLEN COUNTY, IN	6	5	\$17,264.96	0.00%	100.00%
BELL COUNTY, TX	12	3	\$17,249.54	0.00%	100.00%
SAINT MARY COUNTY, LA	1	1	\$17,040.00	0.00%	100.00%
MUSKEGON COUNTY, MI	4	3	\$16,722.10	0.00%	100.00%
SANDUSKY COUNTY, OH	1	1	\$16,600.00	0.00%	100.00%
DONA ANA COUNTY, NM	1	1	\$16,575.71	0.00%	100.00%
RUSK COUNTY, WI	1	1	\$16,445.50	0.00%	100.00%
CLAY COUNTY, FL	3	2	\$16,398.00	0.00%	100.00%
MUSCOGEE COUNTY, GA	1	1	\$16,010.00	0.00%	100.00%
SHELBY COUNTY, OH	2	2	\$15,895.30	0.00%	100.00%
GIBSON COUNTY, TN	7	3	\$15,673.14	0.00%	100.00%
WASHINGTON COUNTY, WI	5	2	\$15,651.98	0.00%	100.00%
ORLEANS COUNTY, NY	2	2	\$15,300.00	0.00%	100.00%
HAMILTON COUNTY, NE	2	2	\$15,044.02	0.00%	100.00%
WARREN COUNTY, KY	4	3	\$15,007.75	0.00%	100.00%
BIBB COUNTY, GA	1	1	\$15,000.00	0.00%	100.00%
CRAIGHEAD COUNTY, AR	2	2	\$14,996.92	0.00%	100.00%
WICOMICO COUNTY, MD	1	1	\$14,917.65	0.00%	100.00%
WALKER COUNTY, GA	4	2	\$14,901.79	0.00%	100.00%
EFFINGHAM COUNTY, IL	2	1	\$14,832.80	0.00%	100.00%
MONROE COUNTY, KY	1	1	\$14,772.34	0.00%	100.00%
VAN ZANDT COUNTY, TX	1	1	\$13,640.00	0.00%	100.00%
GRIMES COUNTY, TX	10	2	\$13,546.39	0.00%	100.00%
EMMET COUNTY, MI	4	1	\$13,500.00	0.00%	100.00%
DICKINSON COUNTY, MI	4	1	\$13,321.60	0.00%	100.00%
WAYNE COUNTY, PA	2	1	\$13,009.00	0.00%	100.00%
GILES COUNTY, VA	4	1	\$12,989.53	0.00%	100.00%
WYANDOT COUNTY, OH	1	1	\$12,766.55	0.00%	100.00%
OUTAGAMIE COUNTY, WI	4	2	\$12,671.70	0.00%	100.00%
LIMESTONE COUNTY, AL	1	1	\$12,480.00	0.00%	100.00%
EL DORADO COUNTY, CA	7	4	\$12,285.25	0.00%	100.00%
KENOSHA COUNTY, WI	3	3	\$12,221.72	0.00%	100.00%
CHATHAM COUNTY, GA	5	4	\$12,186.10	0.00%	100.00%
TRUMBULL COUNTY, OH	3	1	\$12,022.24	0.00%	100.00%
BRYAN COUNTY, GA	5	1	\$11,975.00	0.00%	100.00%
BENTON COUNTY, IA	9	1	\$11,910.85	0.00%	100.00%
DEARBORN COUNTY, IN	1	1	\$11,880.00	0.00%	100.00%
WELLS COUNTY, IN	1	1	\$11,269.00	0.00%	100.00%
GRAYSON COUNTY, TX	3	2	\$11,253.62	0.00%	100.00%
WRIGHT COUNTY, MN	1	1	\$11,240.00	0.00%	100.00%
BONNER COUNTY, ID	5	1	\$11,153.43	0.00%	100.00%
DAVIE COUNTY, NC	2	1	\$11,000.00	0.00%	100.00%
WOODFORD COUNTY, IL	2	2	\$10,837.00	0.00%	100.00%
BROOKE COUNTY, WV	2	1	\$10,807.09	0.00%	100.00%
BOONE COUNTY, MO	3	3	\$10,801.50	0.00%	100.00%
LUBBOCK COUNTY, TX	1	1	\$10,750.60	0.00%	100.00%
BENTON COUNTY, MN	2	1	\$10,726.11	0.00%	100.00%
SHEBOYGAN COUNTY, WI	2	1	\$10,717.80	0.00%	100.00%
WAYNESBORO CITY COUNTY, VA	2	1	\$10,629.00	0.00%	100.00%
PULASKI COUNTY, AR	4	4	\$10,566.79	0.00%	100.00%
PENNINGTON COUNTY, SD	1	1	\$10,456.00	0.00%	100.00%
HIGHLAND COUNTY, OH	2	1	\$10,229.43	0.00%	100.00%
SAN JUAN COUNTY, PR	1	1	\$10,000.00	0.00%	100.00%
ROCKWALL COUNTY, TX	2	2	\$9,980.00	0.00%	100.00%
RALEIGH COUNTY, WV	2	1	\$9,954.00	0.00%	100.00%
HENDERSON COUNTY, KY	1	1	\$9,750.00	0.00%	100.00%
FILLMORE COUNTY, MN	3	2	\$9,667.41	0.00%	100.00%
VERMILION COUNTY, IL	3	1	\$9,522.00	0.00%	100.00%
MORGAN COUNTY, IL	1	1	\$9,240.00	0.00%	100.00%
GRATIOT COUNTY, MI	2	1	\$9,170.00	0.00%	100.00%

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COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
CARROLL COUNTY, GA	2	2	\$9,152.00	0.00%	100.00%
PIKE COUNTY, PA	5	4	\$9,120.00	0.00%	100.00%
ELLIS COUNTY, TX	1	1	\$9,009.00	0.00%	100.00%
CAMERON COUNTY, TX	2	2	\$8,952.78	0.00%	100.00%
FAYETTE COUNTY, TX	6	3	\$8,876.36	0.00%	100.00%
PENNINGTON COUNTY, MN	6	2	\$8,707.35	0.00%	100.00%
WASHINGTON COUNTY, VT	3	2	\$8,705.43	0.00%	100.00%
SPARTANBURG COUNTY, SC	3	2	\$8,382.48	0.00%	100.00%
GRAND TRAVERSE COUNTY, MI	2	2	\$8,303.00	0.00%	100.00%
WALKER COUNTY, AL	2	1	\$8,250.00	0.00%	100.00%
POLK COUNTY, WI	5	2	\$8,216.29	0.00%	100.00%
YAVAPAI COUNTY, AZ	4	3	\$8,188.30	0.00%	100.00%
LYNCHBURG CITY COUNTY, VA	6	2	\$8,067.48	0.00%	100.00%
DUKES COUNTY, MA	3	2	\$8,030.00	0.00%	100.00%
RANDOLPH COUNTY, MO	15	2	\$7,943.00	0.00%	100.00%
STEARNS COUNTY, MN	3	2	\$7,805.29	0.00%	100.00%
LAFAYETTE COUNTY, MS	7	1	\$7,799.00	0.00%	100.00%
SALINE COUNTY, KS	3	2	\$7,765.91	0.00%	100.00%
PICKENS COUNTY, SC	1	1	\$7,750.00	0.00%	100.00%
ESSEX COUNTY, NY	3	1	\$7,653.00	0.00%	100.00%
WASHINGTON COUNTY, AR	1	1	\$7,549.42	0.00%	100.00%
CHIPPEWA COUNTY, WI	3	2	\$7,532.48	0.00%	100.00%
MADISON COUNTY, NE	5	1	\$7,468.58	0.00%	100.00%
POTTER COUNTY, PA	3	1	\$7,409.08	0.00%	100.00%
COLUMBIA COUNTY, AR	2	1	\$7,407.04	0.00%	100.00%
MENDOCINO COUNTY, CA	10	1	\$7,360.96	0.00%	100.00%
LEE COUNTY, GA	2	1	\$7,193.56	0.00%	100.00%
STAFFORD COUNTY, VA	3	3	\$7,146.50	0.00%	100.00%
TAZEWELL COUNTY, IL	1	1	\$7,125.00	0.00%	100.00%
MONROE COUNTY, MI	3	1	\$7,062.03	0.00%	100.00%
SULLIVAN COUNTY, TN	4	2	\$6,940.50	0.00%	100.00%
COLBERT COUNTY, AL	3	1	\$6,883.00	0.00%	100.00%
HUNT COUNTY, TX	1	1	\$6,855.37	0.00%	100.00%
GARFIELD COUNTY, CO	1	1	\$6,842.30	0.00%	100.00%
MARTINSVILLE CITY COUNTY, VA	1	1	\$6,834.60	0.00%	100.00%
BEDFORD COUNTY, PA	3	1	\$6,817.16	0.00%	100.00%
GORDON COUNTY, GA	2	1	\$6,752.91	0.00%	100.00%
MONROE COUNTY, IL	1	1	\$6,413.00	0.00%	100.00%
JESSAMINE COUNTY, KY	1	1	\$6,225.00	0.00%	100.00%
ADAMS COUNTY, NE	1	1	\$6,222.50	0.00%	100.00%
CROW WING COUNTY, MN	2	2	\$6,206.57	0.00%	100.00%
SEBASTIAN COUNTY, AR	2	2	\$6,127.00	0.00%	100.00%
CLEBURNE COUNTY, AR	1	1	\$6,000.00	0.00%	100.00%
NEVADA COUNTY, CA	5	3	\$5,956.59	0.00%	100.00%
LINCOLN COUNTY, NC	1	1	\$5,900.00	0.00%	100.00%
YOUNG COUNTY, TX	2	1	\$5,890.00	0.00%	100.00%
WAYNE COUNTY, NC	2	1	\$5,793.78	0.00%	100.00%
CLARK COUNTY, OH	4	1	\$5,637.45	0.00%	100.00%
ATHENS COUNTY, OH	4	2	\$5,617.42	0.00%	100.00%
YOLO COUNTY, CA	3	3	\$5,568.50	0.00%	100.00%
CERRO GORDO COUNTY, IA	5	1	\$5,492.81	0.00%	100.00%
SANDERS COUNTY, MT	3	1	\$5,464.22	0.00%	100.00%
MARION COUNTY, AL	1	1	\$5,339.75	0.00%	100.00%
CASS COUNTY, MO	1	1	\$5,288.70	0.00%	100.00%
LANCASTER COUNTY, SC	1	1	\$5,250.00	0.00%	100.00%
BEAUFORT COUNTY, SC	4	2	\$5,170.61	0.00%	100.00%
JOHNSTON COUNTY, NC	3	3	\$5,040.00	0.00%	100.00%
BOONE COUNTY, IN	1	1	\$5,000.00	0.00%	100.00%
FULTON COUNTY, OH	1	1	\$5,000.00	0.00%	100.00%
NAPA COUNTY, CA	1	1	\$5,000.00	0.00%	100.00%
THOMAS COUNTY, GA	2	2	\$4,993.17	0.00%	100.00%

APPENDIX A: DETAILED MARKET AREA ANALYSES

COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
SANILAC COUNTY, MI	2	2	\$4,974.00	0.00%	100.00%
PONCE COUNTY, PR	1	1	\$4,970.00	0.00%	100.00%
LUCAS COUNTY, OH	11	2	\$4,968.96	0.00%	100.00%
VIGO COUNTY, IN	2	2	\$4,967.00	0.00%	100.00%
MORGAN COUNTY, AL	1	1	\$4,963.00	0.00%	100.00%
PIPESTONE COUNTY, MN	1	1	\$4,959.00	0.00%	100.00%
COSHOCTON COUNTY, OH	1	1	\$4,894.12	0.00%	100.00%
LEWIS COUNTY, NY	4	3	\$4,888.79	0.00%	100.00%
BULLOCH COUNTY, GA	1	1	\$4,849.43	0.00%	100.00%
BURLEIGH COUNTY, ND	1	1	\$4,845.00	0.00%	100.00%
ROANOKE CITY COUNTY, VA	5	2	\$4,785.00	0.00%	100.00%
WALDO COUNTY, ME	3	2	\$4,765.61	0.00%	100.00%
CALVERT COUNTY, MD	2	1	\$4,753.00	0.00%	100.00%
MARSHALL COUNTY, KS	2	1	\$4,626.42	0.00%	100.00%
LYON COUNTY, NV	3	1	\$4,625.03	0.00%	100.00%
HENRY COUNTY, GA	1	1	\$4,608.00	0.00%	100.00%
RANDOLPH COUNTY, AR	2	1	\$4,550.00	0.00%	100.00%
TULARE COUNTY, CA	3	2	\$4,449.77	0.00%	100.00%
DODGE COUNTY, NE	3	2	\$4,436.45	0.00%	100.00%
FLAGLER COUNTY, FL	2	2	\$4,344.64	0.00%	100.00%
SHIAWASSEE COUNTY, MI	2	1	\$4,304.09	0.00%	100.00%
PULASKI COUNTY, KY	1	1	\$4,125.50	0.00%	100.00%
ORANGE COUNTY, TX	1	1	\$4,125.00	0.00%	100.00%
MAURY COUNTY, TN	1	1	\$3,980.00	0.00%	100.00%
WILSON COUNTY, TX	8	2	\$3,940.00	0.00%	100.00%
GILLESPIE COUNTY, TX	2	2	\$3,892.57	0.00%	100.00%
JEFFERSON COUNTY, OH	1	1	\$3,839.00	0.00%	100.00%
FAIRFIELD COUNTY, SC	1	1	\$3,800.00	0.00%	100.00%
ARCHULETA COUNTY, CO	2	2	\$3,750.00	0.00%	100.00%
WAGONER COUNTY, OK	1	1	\$3,710.00	0.00%	100.00%
WOOD COUNTY, WV	1	1	\$3,519.49	0.00%	100.00%
LOUDON COUNTY, TN	1	1	\$3,500.00	0.00%	100.00%
COLUMBIA COUNTY, OR	1	1	\$3,480.00	0.00%	100.00%
BALDWIN COUNTY, AL	1	1	\$3,479.00	0.00%	100.00%
PIKE COUNTY, GA	1	1	\$3,470.00	0.00%	100.00%
CHEROKEE COUNTY, IA	1	1	\$3,461.00	0.00%	100.00%
HALL COUNTY, NE	1	1	\$3,340.50	0.00%	100.00%
BUTLER COUNTY, KS	1	1	\$3,338.00	0.00%	100.00%
HANCOCK COUNTY, ME	2	2	\$3,250.00	0.00%	100.00%
SUFFOLK COUNTY, NY	1	1	\$3,200.00	0.00%	100.00%
KENT COUNTY, MD	4	2	\$3,148.80	0.00%	100.00%
NORTHUMBERLAND COUNTY, PA	1	1	\$2,955.00	0.00%	100.00%
LA CROSSE COUNTY, WI	1	1	\$2,950.00	0.00%	100.00%
HARALSON COUNTY, GA	2	1	\$2,937.68	0.00%	100.00%
MECOSTA COUNTY, MI	1	1	\$2,924.00	0.00%	100.00%
CHARLEVOIX COUNTY, MI	3	2	\$2,901.16	0.00%	100.00%
LINCOLN COUNTY, OK	1	1	\$2,892.00	0.00%	100.00%
LEWIS COUNTY, WA	1	1	\$2,846.40	0.00%	100.00%
CARLTON COUNTY, MN	2	2	\$2,773.68	0.00%	100.00%
SOCORRO COUNTY, NM	1	1	\$2,732.00	0.00%	100.00%
SIMPSON COUNTY, MS	1	1	\$2,650.00	0.00%	100.00%
ORANGE COUNTY, VA	1	1	\$2,500.00	0.00%	100.00%
DESOTO COUNTY, MS	2	1	\$2,425.10	0.00%	100.00%
CRAWFORD COUNTY, AR	1	1	\$2,419.60	0.00%	100.00%
WASHINGTON COUNTY, OK	1	1	\$2,340.37	0.00%	100.00%
MEEKER COUNTY, MN	2	1	\$2,339.14	0.00%	100.00%
LINN COUNTY, OR	2	1	\$2,315.77	0.00%	100.00%
PORTER COUNTY, IN	2	2	\$2,250.00	0.00%	100.00%
RANDOLPH COUNTY, IN	1	1	\$2,237.20	0.00%	100.00%
LEBANON COUNTY, PA	4	2	\$2,074.36	0.00%	100.00%
LINCOLN COUNTY, LA	2	2	\$2,010.00	0.00%	100.00%

APPENDIX A: DETAILED MARKET AREA ANALYSES

COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
LAMPASAS COUNTY, TX	1	1	\$2,000.00	0.00%	100.00%
SAN JOAQUIN COUNTY, CA	1	1	\$2,000.00	0.00%	100.00%
HAYS COUNTY, TX	3	2	\$1,950.00	0.00%	100.00%
SAINT CLAIR COUNTY, IL	1	1	\$1,898.95	0.00%	100.00%
WOOD COUNTY, WI	4	1	\$1,852.65	0.00%	100.00%
BUCKINGHAM COUNTY, VA	2	1	\$1,819.12	0.00%	100.00%
POSEY COUNTY, IN	2	1	\$1,739.80	0.00%	100.00%
MESA COUNTY, CO	4	2	\$1,729.00	0.00%	100.00%
BATH COUNTY, VA	2	1	\$1,714.00	0.00%	100.00%
LUMPKIN COUNTY, GA	1	1	\$1,680.00	0.00%	100.00%
HAAKON COUNTY, SD	1	1	\$1,605.60	0.00%	100.00%
CURRITUCK COUNTY, NC	1	1	\$1,600.00	0.00%	100.00%
TIOGA COUNTY, PA	4	1	\$1,568.25	0.00%	100.00%
CHENANGO COUNTY, NY	2	2	\$1,550.00	0.00%	100.00%
BOSSIER COUNTY, LA	3	1	\$1,535.80	0.00%	100.00%
YUMA COUNTY, AZ	1	1	\$1,495.96	0.00%	100.00%
CUMBERLAND COUNTY, NC	1	1	\$1,476.38	0.00%	100.00%
BOYD COUNTY, KY	2	1	\$1,475.00	0.00%	100.00%
CHARLOTTESVILLE CITY COUNTY, VA	1	1	\$1,406.00	0.00%	100.00%
CLEVELAND COUNTY, OK	1	1	\$1,329.65	0.00%	100.00%
OKALOOSA COUNTY, FL	1	1	\$1,280.00	0.00%	100.00%
STEUBEN COUNTY, IN	1	1	\$1,265.88	0.00%	100.00%
FRANKLIN COUNTY, NC	1	1	\$1,236.00	0.00%	100.00%
CABARRUS COUNTY, NC	1	1	\$1,218.35	0.00%	100.00%
KOSCIUSKO COUNTY, IN	1	1	\$1,211.00	0.00%	100.00%
LEE COUNTY, NC	1	1	\$1,200.00	0.00%	100.00%
CRAVEN COUNTY, NC	5	1	\$1,160.00	0.00%	100.00%
ONEIDA COUNTY, WI	2	1	\$1,088.00	0.00%	100.00%
SAGADAHOC COUNTY, ME	1	1	\$1,059.50	0.00%	100.00%
SAGINAW COUNTY, MI	1	1	\$1,048.23	0.00%	100.00%
WHITLEY COUNTY, IN	1	1	\$1,043.58	0.00%	100.00%
HONOLULU COUNTY, HI	1	1	\$1,029.20	0.00%	100.00%
JAY COUNTY, IN	1	1	\$1,000.00	0.00%	100.00%
ANCHORAGE BOROUGH, AK	1	1	\$972.50	0.00%	100.00%
TAYLOR COUNTY, TX	1	1	\$935.03	0.00%	100.00%
LA SALLE COUNTY, IL	2	2	\$899.67	0.00%	100.00%
PLUMAS COUNTY, CA	2	2	\$874.50	0.00%	100.00%
GRAND COUNTY, UT	1	0	\$870.00	0.00%	100.00%
LEXINGTON CITY COUNTY, VA	1	1	\$857.08	0.00%	100.00%
CALEDONIA COUNTY, VT	1	1	\$814.00	0.00%	100.00%
CHIPPEWA COUNTY, MI	1	1	\$702.25	0.00%	100.00%
STANLY COUNTY, NC	1	1	\$650.00	0.00%	100.00%
PEMBINA COUNTY, ND	1	1	\$639.05	0.00%	100.00%
ANDERSON COUNTY, KY	1	1	\$634.78	0.00%	100.00%
CAMBRIA COUNTY, PA	2	2	\$630.00	0.00%	100.00%
OZAUKEE COUNTY, WI	1	1	\$584.00	0.00%	100.00%
FREMONT COUNTY, WY	1	1	\$561.71	0.00%	100.00%
WALTON COUNTY, FL	1	1	\$546.28	0.00%	100.00%
MERIWETHER COUNTY, GA	1	1	\$537.55	0.00%	100.00%
HOWARD COUNTY, NE	1	1	\$523.30	0.00%	100.00%
MONONGALIA COUNTY, WV	1	1	\$500.00	0.00%	100.00%
GRAINGER COUNTY, TN	1	1	\$450.00	0.00%	100.00%
EATON COUNTY, MI	1	1	\$429.34	0.00%	100.00%
BOTETOURT COUNTY, VA	1	1	\$414.30	0.00%	100.00%
WASHINGTON COUNTY, NE	1	1	\$404.05	0.00%	100.00%
UNION COUNTY, SD	1	1	\$399.98	0.00%	100.00%
BOONE COUNTY, KY	1	1	\$399.82	0.00%	100.00%
OCONTO COUNTY, WI	1	1	\$394.40	0.00%	100.00%
MASON COUNTY, WA	1	1	\$389.80	0.00%	100.00%
JACKSON COUNTY, MI	1	1	\$369.95	0.00%	100.00%
LAKE COUNTY, IN	2	2	\$368.74	0.00%	100.00%

APPENDIX A: DETAILED MARKET AREA ANALYSES

COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
ISANTI COUNTY, MN	1	1	\$325.27	0.00%	100.00%
LONOKE COUNTY, AR	1	1	\$299.96	0.00%	100.00%
RUTLAND COUNTY, VT	2	2	\$278.72	0.00%	100.00%
MARQUETTE COUNTY, MI	1	1	\$194.84	0.00%	100.00%
KEWAUNEE COUNTY, WI	1	1	\$159.10	0.00%	100.00%
ORANGE COUNTY, VT	1	1	\$158.05	0.00%	100.00%
LYCOMING COUNTY, PA	1	1	\$148.05	0.00%	100.00%
BOND COUNTY, IL	1	1	\$96.00	0.00%	100.00%
WARREN COUNTY, PA	1	1	\$89.85	0.00%	100.00%
SALEM COUNTY, NJ	1	1	\$77.25	0.00%	100.00%
MAHASKA COUNTY, IA	1	1	\$74.74	0.00%	100.00%
JONES COUNTY, MS	1	1	\$46.35	0.00%	100.00%
ALLEGAN COUNTY, MI	1	1	\$-	0.00%	100.00%
BLUE EARTH COUNTY, MN	1	1	\$-	0.00%	100.00%
BROWN COUNTY, TX	1	1	\$-	0.00%	100.00%
NASH COUNTY, NC	1	1	\$-	0.00%	100.00%
ROSS COUNTY, OH	2	1	\$-	0.00%	100.00%
SCOTT COUNTY, KY	1	1	\$-	0.00%	100.00%
TIPTON COUNTY, TN	1	1	\$-	0.00%	100.00%
WASHINGTON COUNTY, OH	1	1	\$-	0.00%	100.00%

Source: MGT developed a Master Prime File based on dollars expended by the City of New York between July 1, 2006, and June 30, 2015.

¹ Cumulative percent of total dollars for location of firms (market area).

Location of firms listed to the dotted line represent counties and states in the City's five boroughs, to the solid line represent counties and states considered to be eligible for Minority and Women-owned Business Enterprise (M/WBE) Certification, and to the double line represent counties and states in the New York-Newark-Jersey City, NY-NJ-PA Metropolitan Statistical Area (MSA).

TABLE A-2: MARKET AREA ANALYSIS, PRIME LEVEL DISTRIBUTION OF DOLLARS BY LOCATION OF FIRM (COUNTY, STATE), ARCHITECTURE & ENGINEERING

COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
QUEENS COUNTY, NY	207	105	\$4,872,591,919.53	35.91%	35.91%
NEW YORK COUNTY, NY	951	288	\$3,433,375,680.90	25.30%	61.21%
KINGS COUNTY, NY	139	72	\$250,760,239.26	1.85%	63.06%
RICHMOND COUNTY, NY	51	25	\$87,131,188.06	0.64%	63.70%
BRONX COUNTY, NY	26	15	\$70,689,548.88	0.52%	64.22%
HUDSON COUNTY, NJ	6	6	\$910,217,384.96	6.71%	70.93%
NASSAU COUNTY, NY	121	58	\$751,643,862.51	5.54%	76.47%
BERGEN COUNTY, NJ	21	14	\$723,458,986.27	5.33%	81.80%
WESTCHESTER COUNTY, NY	53	40	\$550,849,207.69	4.06%	85.86%
SUFFOLK COUNTY, NY	55	25	\$444,792,986.86	3.28%	89.13%
ROCKLAND COUNTY, NY	20	9	\$52,694,353.69	0.39%	89.52%
PASSAIC COUNTY, NJ	9	6	\$7,369,799.54	0.05%	89.58%
PUTNAM COUNTY, NY	10	6	\$1,646,792.47	0.01%	89.59%
UNION COUNTY, NJ	5	4	\$272,776,807.10	2.01%	91.60%
OCEAN COUNTY, NJ	4	2	\$182,190,538.59	1.34%	92.94%
MIDDLESEX COUNTY, NJ	24	13	\$104,652,080.26	0.77%	93.71%
MONMOUTH COUNTY, NJ	8	6	\$52,536,978.18	0.39%	94.10%
DUTCHESS COUNTY, NY	9	5	\$4,449,092.63	0.03%	94.13%
SOMERSET COUNTY, NJ	6	4	\$847,945.00	0.01%	94.14%
ESSEX COUNTY, NJ	6	3	\$97,600.00	0.00%	94.14%
MORRIS COUNTY, NJ	4	2	\$13,318.42	0.00%	94.14%
TARRANT COUNTY, TX	1	1	\$142,109,843.90	1.05%	95.19%
GALLATIN COUNTY, MT	2	1	\$139,110,570.94	1.03%	96.21%
DOUGLAS COUNTY, NE	11	1	\$126,314,953.84	0.93%	97.14%
LAFOURCHE COUNTY, LA	1	1	\$91,010,527.00	0.67%	97.81%
GALVESTON COUNTY, TX	1	1	\$79,245,352.38	0.58%	98.40%
SARATOGA COUNTY, NY	3	2	\$36,407,352.96	0.27%	98.67%
WASHINGTON COUNTY, PA	1	1	\$20,379,012.98	0.15%	98.82%
SAN FRANCISCO COUNTY, CA	8	2	\$18,501,687.26	0.14%	98.95%
SCHOHARIE COUNTY, NY	1	1	\$13,181,171.18	0.10%	99.05%
DELAWARE COUNTY, PA	1	1	\$12,886,500.39	0.09%	99.14%
COOK COUNTY, IL	7	6	\$12,119,038.97	0.09%	99.23%
DELAWARE COUNTY, NY	5	3	\$12,117,285.52	0.09%	99.32%
BROOME COUNTY, NY	1	1	\$11,573,264.16	0.09%	99.41%
NORFOLK COUNTY, MA	1	1	\$9,116,308.00	0.07%	99.48%
TRAVIS COUNTY, TX	1	1	\$9,115,570.04	0.07%	99.54%
SANTA BARBARA COUNTY, CA	1	1	\$7,503,939.47	0.06%	99.60%
ONONDAGA COUNTY, NY	2	2	\$7,412,923.29	0.05%	99.65%
LANCASTER COUNTY, PA	4	1	\$6,025,000.00	0.04%	99.70%
ULSTER COUNTY, NY	12	7	\$5,760,730.91	0.04%	99.74%
FAIRFIELD COUNTY, CT	7	6	\$5,316,075.82	0.04%	99.78%
GREENE COUNTY, NY	3	1	\$4,303,977.88	0.03%	99.81%
FULTON COUNTY, NY	1	1	\$4,303,126.07	0.03%	99.84%
MIDDLESEX COUNTY, MA	9	6	\$3,789,230.90	0.03%	99.87%
MERCER COUNTY, NJ	1	1	\$2,870,332.00	0.02%	99.89%
CONTRA COSTA COUNTY, CA	6	1	\$2,472,243.74	0.02%	99.91%
SAINTE LAWRENCE COUNTY, NY	4	1	\$2,452,689.56	0.02%	99.93%
BALTIMORE CITY COUNTY, MD	1	1	\$1,627,248.54	0.01%	99.94%
ALLEGHENY COUNTY, PA	8	6	\$1,404,315.34	0.01%	99.95%
NEW HAVEN COUNTY, CT	6	4	\$1,061,311.35	0.01%	99.96%
ERIE COUNTY, NY	5	4	\$969,750.10	0.01%	99.96%
ORANGE COUNTY, CA	4	3	\$852,337.50	0.01%	99.97%
OTSEGO COUNTY, NY	1	1	\$830,036.74	0.01%	99.98%
GWINNETT COUNTY, GA	1	1	\$798,285.39	0.01%	99.98%
KITSAP COUNTY, WA	3	1	\$350,000.00	0.00%	99.99%
SANDOVAL COUNTY, NM	3	1	\$333,418.95	0.00%	99.99%
ALBANY COUNTY, NY	3	2	\$302,670.00	0.00%	99.99%
HARRIS COUNTY, TX	4	1	\$259,682.28	0.00%	99.99%

APPENDIX A: DETAILED MARKET AREA ANALYSES

COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
ONEIDA COUNTY, NY	1	1	\$125,000.00	0.00%	99.99%
BUCKS COUNTY, PA	2	2	\$120,240.00	0.00%	99.99%
LACKAWANNA COUNTY, PA	5	1	\$113,700.00	0.00%	100.00%
MONROE COUNTY, PA	1	1	\$95,000.00	0.00%	100.00%
ORANGE COUNTY, FL	1	1	\$75,685.51	0.00%	100.00%
ATLANTIC COUNTY, NJ	1	1	\$54,272.00	0.00%	100.00%
LINCOLN COUNTY, ME	1	1	\$43,454.00	0.00%	100.00%
DALLAS COUNTY, TX	2	1	\$38,000.00	0.00%	100.00%
BROWARD COUNTY, FL	3	1	\$35,850.00	0.00%	100.00%
OLMSTED COUNTY, MN	3	1	\$29,690.00	0.00%	100.00%
FORSYTH COUNTY, GA	1	1	\$25,000.00	0.00%	100.00%
MONTEREY COUNTY, CA	1	1	\$24,998.70	0.00%	100.00%
PALM BEACH COUNTY, FL	2	2	\$24,798.14	0.00%	100.00%
FULTON COUNTY, GA	2	2	\$21,944.00	0.00%	100.00%
GLOUCESTER COUNTY, NJ	5	1	\$21,000.00	0.00%	100.00%
CARBON COUNTY, UT	1	1	\$19,799.00	0.00%	100.00%
SARASOTA COUNTY, FL	1	1	\$19,479.75	0.00%	100.00%
LOUDOUN COUNTY, VA	1	1	\$15,635.00	0.00%	100.00%
MONTGOMERY COUNTY, PA	1	1	\$15,000.00	0.00%	100.00%
MIAMI-DADE COUNTY, FL	2	2	\$14,250.00	0.00%	100.00%
BURLINGTON COUNTY, NJ	3	1	\$13,020.70	0.00%	100.00%
ROCK COUNTY, WI	4	1	\$12,700.00	0.00%	100.00%
LOS ANGELES COUNTY, CA	5	5	\$11,402.50	0.00%	100.00%
ARAPAHOE COUNTY, CO	1	1	\$9,300.00	0.00%	100.00%
FAIRFAX COUNTY, VA	1	1	\$8,312.00	0.00%	100.00%
INGHAM COUNTY, MI	2	1	\$7,945.00	0.00%	100.00%
MIAMI COUNTY, KS	1	1	\$6,308.00	0.00%	100.00%
PLACER COUNTY, CA	1	1	\$4,145.67	0.00%	100.00%
PROVIDENCE COUNTY, RI	1	1	\$4,121.14	0.00%	100.00%
NEW LONDON COUNTY, CT	1	1	\$3,850.00	0.00%	100.00%
DAKOTA COUNTY, MN	5	1	\$3,250.00	0.00%	100.00%
CHESTER COUNTY, PA	1	1	\$2,640.00	0.00%	100.00%
TOMPKINS COUNTY, NY	1	1	\$2,505.00	0.00%	100.00%
SALT LAKE COUNTY, UT	1	1	\$2,500.00	0.00%	100.00%
SANTA CLARA COUNTY, CA	4	2	\$2,169.87	0.00%	100.00%
BEXAR COUNTY, TX	1	1	\$1,803.00	0.00%	100.00%
HILLSBOROUGH COUNTY, FL	1	1	\$1,498.75	0.00%	100.00%
EL PASO COUNTY, TX	1	1	\$1,200.00	0.00%	100.00%
FAYETTE COUNTY, TX	1	1	\$1,162.65	0.00%	100.00%
MARICOPA COUNTY, AZ	1	1	\$1,148.50	0.00%	100.00%
SEDGWICK COUNTY, KS	1	1	\$900.00	0.00%	100.00%
MONTGOMERY COUNTY, MD	1	1	\$687.50	0.00%	100.00%
UNION COUNTY, SD	1	1	\$399.98	0.00%	100.00%
ALAMEDA COUNTY, CA	1	1	\$345.00	0.00%	100.00%
HENNEPIN COUNTY, MN	1	1	\$-	0.00%	100.00%

Source: MGT developed a Master Prime File based on dollars awarded by the City of New York between July 1, 2006 and June 30, 2015.

¹ Cumulative percent of total dollars for location of firms (market area).

Location of firms listed to the dotted line represent counties and states in the City's five boroughs, to the solid line represent counties and states considered to be eligible for Minority and Women-owned Business Enterprise (M/WBE) Certification, and to the double line represent counties and states in the New York-Newark-Jersey City, NY-NJ-PA Metropolitan Statistical Area (MSA).

TABLE A-3: MARKET AREA ANALYSIS, PRIME LEVEL DISTRIBUTION OF DOLLARS BY LOCATION OF FIRM (COUNTY, STATE), CONSTRUCTION

COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
QUEENS COUNTY, NY	4288	358	\$3,986,393,186.06	27.00%	27.00%
NEW YORK COUNTY, NY	474	185	\$1,987,069,466.10	13.46%	40.46%
KINGS COUNTY, NY	3061	261	\$1,480,477,621.60	10.03%	50.49%
RICHMOND COUNTY, NY	258	62	\$441,584,631.24	2.99%	53.48%
BRONX COUNTY, NY	1558	74	\$253,071,110.34	1.71%	55.20%
NASSAU COUNTY, NY	1053	115	\$1,389,771,358.00	9.41%	64.61%
WESTCHESTER COUNTY, NY	152	63	\$884,734,248.25	5.99%	70.60%
SUFFOLK COUNTY, NY	146	68	\$479,647,477.52	3.25%	73.85%
ROCKLAND COUNTY, NY	29	12	\$314,611,174.36	2.13%	75.98%
HUDSON COUNTY, NJ	30	10	\$187,383,169.99	1.27%	77.25%
BERGEN COUNTY, NJ	36	15	\$73,844,447.57	0.50%	77.75%
PASSAIC COUNTY, NJ	29	6	\$13,870,131.15	0.09%	77.85%
PUTNAM COUNTY, NY	5	5	\$1,575,340.93	0.01%	77.86%
MIDDLESEX COUNTY, NJ	90	18	\$1,156,689,657.14	7.84%	85.69%
ESSEX COUNTY, NJ	77	9	\$547,233,559.75	3.71%	89.40%
MONMOUTH COUNTY, NJ	30	10	\$326,340,308.69	2.21%	91.61%
UNION COUNTY, NJ	222	9	\$98,771,975.29	0.67%	92.28%
SOMERSET COUNTY, NJ	17	7	\$48,799,495.06	0.33%	92.61%
MORRIS COUNTY, NJ	20	9	\$36,873,232.23	0.25%	92.86%
DUTCHESS COUNTY, NY	7	5	\$10,737,223.16	0.07%	92.93%
OCEAN COUNTY, NJ	3	1	\$9,900,572.81	0.07%	93.00%
ORANGE COUNTY, NY	7	6	\$2,023,036.14	0.01%	93.01%
SUSSEX COUNTY, NJ	1	1	\$238,678.00	0.00%	93.01%
DOUGLAS COUNTY, NE	1	1	\$666,754,052.61	4.52%	97.53%
SAN DIEGO COUNTY, CA	7	3	\$183,052,969.88	1.24%	98.77%
SAN FRANCISCO COUNTY, CA	1	1	\$25,749,694.00	0.17%	98.95%
MONTGOMERY COUNTY, MD	2	1	\$25,024,420.00	0.17%	99.11%
CUYAHOGA COUNTY, OH	1	1	\$21,594,925.20	0.15%	99.26%
ONONDAGA COUNTY, NY	4	4	\$15,605,190.80	0.11%	99.37%
SARATOGA COUNTY, NY	1	1	\$14,942,902.36	0.10%	99.47%
ULSTER COUNTY, NY	8	4	\$12,993,123.00	0.09%	99.56%
HARTFORD COUNTY, CT	6	5	\$11,066,181.67	0.07%	99.63%
KNOX COUNTY, TN	2	1	\$9,672,734.62	0.07%	99.70%
PHILADELPHIA COUNTY, PA	2	2	\$5,881,813.00	0.04%	99.74%
ERIE COUNTY, NY	1	1	\$5,640,000.00	0.04%	99.77%
BALTIMORE COUNTY, MD	2	1	\$5,007,757.07	0.03%	99.81%
MIDDLESEX COUNTY, MA	2	2	\$4,200,101.32	0.03%	99.84%
FREDERICK COUNTY, MD	2	1	\$3,750,000.00	0.03%	99.86%
SULLIVAN COUNTY, NY	2	2	\$2,669,120.27	0.02%	99.88%
DELAWARE COUNTY, NY	6	5	\$2,321,500.51	0.02%	99.90%
RENSSELAER COUNTY, NY	3	2	\$2,254,850.00	0.02%	99.91%
CANADA	2	1	\$2,198,840.00	0.01%	99.93%
MEDINA COUNTY, OH	1	1	\$2,087,768.62	0.01%	99.94%
DUVAL COUNTY, FL	4	1	\$1,642,772.27	0.01%	99.95%
ALBANY COUNTY, NY	5	4	\$1,444,051.62	0.01%	99.96%
POLK COUNTY, IA	2	1	\$1,200,000.00	0.01%	99.97%
CHESTER COUNTY, PA	2	2	\$1,166,794.82	0.01%	99.98%
FULTON COUNTY, GA	3	2	\$732,232.48	0.00%	99.98%
MONROE COUNTY, NY	5	3	\$729,099.80	0.00%	99.99%
FAIRFIELD COUNTY, CT	14	6	\$632,989.28	0.00%	99.99%
COOK COUNTY, IL	13	6	\$364,147.46	0.00%	99.99%
FORSYTH COUNTY, GA	5	1	\$123,055.90	0.00%	99.99%
WARREN COUNTY, NJ	2	2	\$102,072.00	0.00%	100.00%
LUZERNE COUNTY, PA	1	1	\$71,699.44	0.00%	100.00%
PALM BEACH COUNTY, FL	3	3	\$53,591.18	0.00%	100.00%
MARIN COUNTY, CA	1	1	\$50,262.18	0.00%	100.00%

APPENDIX A: DETAILED MARKET AREA ANALYSES

COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
MARICOPA COUNTY, AZ	2	1	\$50,000.00	0.00%	100.00%
BROWARD COUNTY, FL	1	1	\$45,236.26	0.00%	100.00%
HENNEPIN COUNTY, MN	5	3	\$44,205.56	0.00%	100.00%
ONTARIO COUNTY, NY	1	1	\$39,970.63	0.00%	100.00%
BURLINGTON COUNTY, NJ	7	3	\$38,527.00	0.00%	100.00%
DALLAS COUNTY, TX	2	2	\$26,604.99	0.00%	100.00%
KING COUNTY, WA	1	1	\$24,742.48	0.00%	100.00%
HARRIS COUNTY, TX	5	2	\$22,755.00	0.00%	100.00%
MILWAUKEE COUNTY, WI	3	1	\$20,648.00	0.00%	100.00%
SHELBY COUNTY, TN	1	1	\$19,999.46	0.00%	100.00%
SARASOTA COUNTY, FL	1	1	\$19,539.75	0.00%	100.00%
BRISTOL COUNTY, MA	2	2	\$15,443.00	0.00%	100.00%
BERKS COUNTY, PA	1	1	\$14,598.78	0.00%	100.00%
DUPAGE COUNTY, IL	1	1	\$9,197.00	0.00%	100.00%
CLARK COUNTY, NV	1	1	\$8,900.00	0.00%	100.00%
TRAVIS COUNTY, TX	1	1	\$8,785.00	0.00%	100.00%
LITCHFIELD COUNTY, CT	1	1	\$8,752.00	0.00%	100.00%
FAIRFAX COUNTY, VA	1	1	\$7,243.00	0.00%	100.00%
FORSYTH COUNTY, NC	4	1	\$6,274.70	0.00%	100.00%
GREENE COUNTY, NY	1	1	\$5,862.56	0.00%	100.00%
HAMBLEN COUNTY, TN	1	1	\$5,741.00	0.00%	100.00%
CUMBERLAND COUNTY, PA	6	1	\$4,278.00	0.00%	100.00%
NEWPORT NEWS CITY COUNTY, VA	1	1	\$2,763.84	0.00%	100.00%
BRISTOL COUNTY, RI	2	1	\$2,317.59	0.00%	100.00%
CHIPPEWA COUNTY, WI	1	1	\$1,677.23	0.00%	100.00%
DARKE COUNTY, OH	1	1	\$1,228.00	0.00%	100.00%
LOS ANGELES COUNTY, CA	3	2	\$1,221.00	0.00%	100.00%
ROCK COUNTY, WI	2	1	\$1,154.96	0.00%	100.00%
POLK COUNTY, FL	1	1	\$900.00	0.00%	100.00%
MONTGOMERY COUNTY, PA	1	1	\$750.00	0.00%	100.00%
HILLSBOROUGH COUNTY, FL	1	1	\$683.19	0.00%	100.00%
COLLIER COUNTY, FL	1	1	\$623.08	0.00%	100.00%
MERCER COUNTY, NJ	1	1	\$280.00	0.00%	100.00%
BROOME COUNTY, NY	1	1	\$-	0.00%	100.00%
RAMSEY COUNTY, MN	1	1	\$-	0.00%	100.00%
UNION COUNTY, NC	1	1	\$-	0.00%	100.00%
VANDERBURGH COUNTY, IN	1	1	\$-	0.00%	100.00%

Source: MGT developed a Master Prime File based on dollars expended by the City of New York between July 1, 2006 and June 30, 2015.

¹ Cumulative percent of total dollars for location of firms (market area).

Location of firms listed to the dotted line represent counties and states in the City's five boroughs, to the solid line represent counties and states considered to be eligible for Minority and Women-owned Business Enterprise (M/WBE) Certification, and to the double line represent counties and states in the New York-Newark-Jersey City, NY-NJ-PA Metropolitan Statistical Area (MSA).

TABLE A-4: MARKET AREA ANALYSIS, PRIME LEVEL DISTRIBUTION OF DOLLARS BY LOCATION OF FIRM (COUNTY, STATE), PROFESSIONAL SERVICES

COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
NEW YORK COUNTY, NY	7225	1881	\$5,053,666,035.90	40.23%	40.23%
QUEENS COUNTY, NY	1502	557	\$1,722,761,318.30	13.71%	53.94%
KINGS COUNTY, NY	1630	858	\$545,261,945.33	4.34%	58.29%
BRONX COUNTY, NY	413	195	\$72,991,250.48	0.58%	58.87%
RICHMOND COUNTY, NY	357	145	\$14,005,264.65	0.11%	58.98%
HUDSON COUNTY, NJ	108	54	\$1,594,500,691.40	12.69%	71.67%
WESTCHESTER COUNTY, NY	589	211	\$137,883,330.08	1.10%	72.77%
NASSAU COUNTY, NY	1044	304	\$107,125,418.44	0.85%	73.62%
BERGEN COUNTY, NJ	326	111	\$95,637,456.21	0.76%	74.38%
SUFFOLK COUNTY, NY	488	158	\$47,413,863.57	0.38%	74.76%
ROCKLAND COUNTY, NY	153	43	\$13,399,460.37	0.11%	74.87%
PUTNAM COUNTY, NY	76	21	\$1,910,198.45	0.02%	74.88%
PASSAIC COUNTY, NJ	51	22	\$843,465.14	0.01%	74.89%
MIDDLESEX COUNTY, NJ	316	67	\$159,337,760.04	1.27%	76.16%
ESSEX COUNTY, NJ	133	62	\$101,946,141.93	0.81%	76.97%
MORRIS COUNTY, NJ	148	44	\$78,344,529.72	0.62%	77.59%
SOMERSET COUNTY, NJ	80	23	\$13,987,365.06	0.11%	77.70%
DUTCHESS COUNTY, NY	226	21	\$3,521,862.69	0.03%	77.73%
ORANGE COUNTY, NY	60	30	\$2,990,222.99	0.02%	77.76%
MONMOUTH COUNTY, NJ	76	41	\$2,898,484.57	0.02%	77.78%
UNION COUNTY, NJ	51	25	\$2,162,568.50	0.02%	77.80%
HUNTERDON COUNTY, NJ	13	10	\$179,397.74	0.00%	77.80%
SUSSEX COUNTY, NJ	16	3	\$110,429.44	0.00%	77.80%
OCEAN COUNTY, NJ	11	8	\$24,002.50	0.00%	77.80%
COOK COUNTY, IL	231	71	\$790,144,733.19	6.29%	84.09%
GALVESTON COUNTY, TX	1	1	\$292,672,875.00	2.33%	86.42%
DALLAS COUNTY, TX	103	27	\$278,424,513.14	2.22%	88.63%
ALBANY COUNTY, NY	512	37	\$202,022,012.51	1.61%	90.24%
LOUDOUN COUNTY, VA	65	27	\$147,734,676.49	1.18%	91.42%
MECKLENBURG COUNTY, NC	1096	6	\$126,485,866.31	1.01%	92.43%
SAN FRANCISCO COUNTY, CA	20	16	\$101,337,984.95	0.81%	93.23%
SUFFOLK COUNTY, MA	56	26	\$95,445,721.45	0.76%	93.99%
PHILADELPHIA COUNTY, PA	122	45	\$77,167,974.43	0.61%	94.61%
SAINT LOUIS CITY COUNTY, MO	9	3	\$60,308,333.00	0.48%	95.09%
BROWARD COUNTY, FL	18	13	\$49,351,629.49	0.39%	95.48%
HENNEPIN COUNTY, MN	18	13	\$37,073,711.95	0.30%	95.77%
FAIRFAX COUNTY, VA	36	15	\$36,838,890.66	0.29%	96.07%
MERCER COUNTY, NJ	57	23	\$34,108,947.40	0.27%	96.34%
SACRAMENTO COUNTY, CA	24	7	\$29,781,736.74	0.24%	96.58%
CAYUGA COUNTY, NY	3	1	\$29,692,455.74	0.24%	96.81%
HAMILTON COUNTY, OH	24	11	\$21,368,760.27	0.17%	96.98%
FAIRFIELD COUNTY, CT	121	30	\$18,540,165.60	0.15%	97.13%
MONTGOMERY COUNTY, OH	1	1	\$18,441,425.00	0.15%	97.28%
ERIE COUNTY, NY	93	11	\$17,866,964.98	0.14%	97.42%
KING COUNTY, WA	42	26	\$17,135,426.97	0.14%	97.56%
SUMMIT COUNTY, OH	4	3	\$16,261,122.00	0.13%	97.69%
FULTON COUNTY, GA	99	38	\$16,168,154.88	0.13%	97.81%
MONTGOMERY COUNTY, MD	76	32	\$14,246,500.99	0.11%	97.93%
LOS ANGELES COUNTY, CA	99	43	\$14,236,622.52	0.11%	98.04%
MADISON COUNTY, NY	3	2	\$14,105,977.44	0.11%	98.15%
BEXAR COUNTY, TX	4	4	\$12,810,069.03	0.10%	98.26%
PALM BEACH COUNTY, FL	24	13	\$11,801,911.86	0.09%	98.35%
RIVERSIDE COUNTY, CA	6	4	\$10,622,251.20	0.08%	98.43%
TRAVIS COUNTY, TX	28	14	\$10,544,222.30	0.08%	98.52%
LARIMER COUNTY, CO	6	4	\$10,005,932.85	0.08%	98.60%
ULSTER COUNTY, NY	49	22	\$9,561,315.67	0.08%	98.67%
SAN DIEGO COUNTY, CA	30	16	\$8,771,926.31	0.07%	98.74%
WAYNE COUNTY, MI	29	6	\$8,530,110.32	0.07%	98.81%

APPENDIX A: DETAILED MARKET AREA ANALYSES

COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
DISTRICT OF COLUMBIA, DC	64	34	\$8,027,904.79	0.06%	98.88%
CUMBERLAND COUNTY, ME	7	3	\$7,339,154.04	0.06%	98.93%
FREDERICK COUNTY, MD	7	3	\$7,222,463.14	0.06%	98.99%
HARRIS COUNTY, TX	27	19	\$7,086,542.80	0.06%	99.05%
NEW HAVEN COUNTY, CT	50	25	\$6,935,804.68	0.06%	99.10%
VIRGINIA BEACH CITY COUNTY, VA	10	4	\$6,928,940.72	0.06%	99.16%
MONROE COUNTY, NY	37	16	\$6,205,702.20	0.05%	99.21%
MINNEHAHA COUNTY, SD	48	2	\$5,948,630.64	0.05%	99.25%
DUPAGE COUNTY, IL	11	8	\$5,401,539.13	0.04%	99.30%
MONTGOMERY COUNTY, PA	69	14	\$4,471,936.50	0.04%	99.33%
ALLEGHENY COUNTY, PA	42	17	\$4,295,013.80	0.03%	99.37%
MIDDLESEX COUNTY, MA	63	40	\$3,926,697.38	0.03%	99.40%
ARAPAHOE COUNTY, CO	19	12	\$3,825,983.46	0.03%	99.43%
CANADA	32	17	\$3,590,571.99	0.03%	99.46%
MIAMI COUNTY, KS	14	5	\$3,198,492.74	0.03%	99.48%
ALAMEDA COUNTY, CA	25	15	\$2,770,030.94	0.02%	99.51%
JACKSON COUNTY, MO	9	4	\$2,534,423.70	0.02%	99.53%
BOULDER COUNTY, CO	7	5	\$2,459,933.77	0.02%	99.55%
CUYAHOGA COUNTY, OH	13	6	\$2,286,860.13	0.02%	99.56%
MARIN COUNTY, CA	10	5	\$2,217,612.50	0.02%	99.58%
SCHOHARIE COUNTY, NY	1	1	\$2,190,246.58	0.02%	99.60%
RICHLAND COUNTY, SC	4	3	\$2,088,483.00	0.02%	99.62%
BALTIMORE CITY COUNTY, MD	23	10	\$2,041,081.28	0.02%	99.63%
RAMSEY COUNTY, MN	5	5	\$2,035,653.20	0.02%	99.65%
HAMPSHIRE COUNTY, MA	11	5	\$2,028,461.00	0.02%	99.66%
THURSTON COUNTY, WA	3	2	\$2,000,375.00	0.02%	99.68%
MARICOPA COUNTY, AZ	21	14	\$1,984,574.18	0.02%	99.70%
GRAFTON COUNTY, NH	6	4	\$1,884,359.85	0.02%	99.71%
DUVAL COUNTY, FL	3	3	\$1,449,800.00	0.01%	99.72%
ONONDAGA COUNTY, NY	36	10	\$1,430,034.27	0.01%	99.73%
MILWAUKEE COUNTY, WI	9	7	\$1,417,318.00	0.01%	99.74%
BURLINGTON COUNTY, NJ	14	8	\$1,117,955.68	0.01%	99.75%
CAMDEN COUNTY, NJ	27	8	\$1,113,944.61	0.01%	99.76%
WILLIAMSON COUNTY, TN	11	5	\$1,008,906.00	0.01%	99.77%
LAKE COUNTY, IL	43	4	\$985,130.92	0.01%	99.78%
NORTHAMPTON COUNTY, PA	15	4	\$963,401.00	0.01%	99.79%
MIAMI-DADE COUNTY, FL	25	10	\$961,882.31	0.01%	99.79%
ESSEX COUNTY, MA	16	8	\$951,278.60	0.01%	99.80%
EAST BATON ROUGE COUNTY, LA	1	1	\$940,250.00	0.01%	99.81%
SANTA CLARA COUNTY, CA	19	11	\$862,465.16	0.01%	99.82%
PORTSMOUTH CITY COUNTY, VA	2	1	\$771,495.00	0.01%	99.82%
LEON COUNTY, FL	8	4	\$756,018.38	0.01%	99.83%
PIMA COUNTY, AZ	15	7	\$747,575.93	0.01%	99.83%
HOWARD COUNTY, MD	13	6	\$711,860.00	0.01%	99.84%
MANASSAS CITY COUNTY, VA	3	3	\$710,124.77	0.01%	99.84%
CLARK COUNTY, NV	11	7	\$694,039.97	0.01%	99.85%
DELAWARE COUNTY, PA	21	8	\$668,337.42	0.01%	99.86%
ORANGE COUNTY, CA	30	15	\$580,893.06	0.00%	99.86%
TOMPKINS COUNTY, NY	7	5	\$554,704.97	0.00%	99.86%
ADAMS COUNTY, PA	2	2	\$551,521.82	0.00%	99.87%
CHARLESTON COUNTY, SC	12	8	\$529,044.10	0.00%	99.87%
CONTRA COSTA COUNTY, CA	9	6	\$515,948.00	0.00%	99.88%
MONTEREY COUNTY, CA	7	1	\$514,510.40	0.00%	99.88%
SCHENECTADY COUNTY, NY	11	6	\$501,168.88	0.00%	99.89%
DOUGLAS COUNTY, CO	46	5	\$490,570.61	0.00%	99.89%
TARRANT COUNTY, TX	7	4	\$463,790.50	0.00%	99.89%
ANNE ARUNDEL COUNTY, MD	25	7	\$453,002.02	0.00%	99.90%
PUEBLO COUNTY, CO	7	1	\$429,470.00	0.00%	99.90%
HILLSBOROUGH COUNTY, NH	16	7	\$393,481.70	0.00%	99.90%

APPENDIX A: DETAILED MARKET AREA ANALYSES

COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
FRESNO COUNTY, CA	9	2	\$376,960.00	0.00%	99.91%
LAUDERDALE COUNTY, MS	15	1	\$338,495.00	0.00%	99.91%
FREDERICKSBURG CITY COUNTY, VA	9	4	\$319,780.52	0.00%	99.91%
ORANGE COUNTY, FL	20	7	\$316,608.22	0.00%	99.91%
SHELBY COUNTY, IA	1	1	\$263,171.28	0.00%	99.92%
LA PLATA COUNTY, CO	4	1	\$261,167.49	0.00%	99.92%
WASHTENAW COUNTY, MI	11	5	\$247,007.10	0.00%	99.92%
SARATOGA COUNTY, NY	25	8	\$232,331.98	0.00%	99.92%
LANCASTER COUNTY, PA	46	3	\$231,025.45	0.00%	99.92%
JEFFERSON COUNTY, CO	2	2	\$225,306.66	0.00%	99.93%
SALT LAKE COUNTY, UT	23	9	\$223,021.71	0.00%	99.93%
CARVER COUNTY, MN	5	2	\$217,665.90	0.00%	99.93%
GWINNETT COUNTY, GA	4	3	\$203,002.73	0.00%	99.93%
OAKLAND COUNTY, MI	6	6	\$200,325.00	0.00%	99.93%
DELAWARE COUNTY, NY	9	2	\$199,300.00	0.00%	99.93%
SUMMIT COUNTY, UT	1	1	\$199,000.00	0.00%	99.94%
WARREN COUNTY, NY	2	2	\$198,300.00	0.00%	99.94%
COCONINO COUNTY, AZ	2	1	\$187,000.00	0.00%	99.94%
MCKEAN COUNTY, PA	1	1	\$185,666.00	0.00%	99.94%
SAN MATEO COUNTY, CA	10	5	\$178,657.30	0.00%	99.94%
COLE COUNTY, MO	3	2	\$175,876.00	0.00%	99.94%
NORFOLK COUNTY, MA	21	13	\$173,147.53	0.00%	99.94%
WASHINGTON COUNTY, RI	3	2	\$171,600.00	0.00%	99.95%
HARTFORD COUNTY, CT	29	9	\$167,979.66	0.00%	99.95%
DARKE COUNTY, OH	3	3	\$160,310.00	0.00%	99.95%
NEW LONDON COUNTY, CT	16	5	\$156,042.76	0.00%	99.95%
ALBEMARLE COUNTY, VA	10	3	\$151,765.10	0.00%	99.95%
HILLSBOROUGH COUNTY, FL	11	6	\$151,161.13	0.00%	99.95%
BALTIMORE COUNTY, MD	20	7	\$147,240.03	0.00%	99.95%
LACKAWANNA COUNTY, PA	10	1	\$141,900.00	0.00%	99.95%
DEKALB COUNTY, GA	8	5	\$135,977.00	0.00%	99.96%
CHESTER COUNTY, PA	6	4	\$129,842.00	0.00%	99.96%
PINELLAS COUNTY, FL	4	3	\$122,000.00	0.00%	99.96%
FRANKLIN COUNTY, PA	7	1	\$121,593.40	0.00%	99.96%
INGHAM COUNTY, MI	2	1	\$117,800.00	0.00%	99.96%
MONTGOMERY COUNTY, VA	2	1	\$117,774.00	0.00%	99.96%
FRANKLIN COUNTY, OH	13	8	\$117,593.18	0.00%	99.96%
JOHNSON COUNTY, KS	8	4	\$117,483.66	0.00%	99.96%
UTAH COUNTY, UT	4	3	\$116,800.00	0.00%	99.96%
PRINCE WILLIAM COUNTY, VA	3	3	\$115,200.00	0.00%	99.96%
YATES COUNTY, NY	2	1	\$108,421.52	0.00%	99.96%
GLYNN COUNTY, GA	13	1	\$108,202.37	0.00%	99.97%
RICHMOND CITY COUNTY, VA	9	6	\$107,706.68	0.00%	99.97%
COLUMBIA COUNTY, NY	5	4	\$104,579.62	0.00%	99.97%
DAUPHIN COUNTY, PA	5	4	\$103,203.50	0.00%	99.97%
CARROLL COUNTY, MD	4	1	\$102,546.00	0.00%	99.97%
JEFFERSON COUNTY, NY	1	1	\$99,000.00	0.00%	99.97%
BRAZOS COUNTY, TX	8	2	\$92,879.30	0.00%	99.97%
PLYMOUTH COUNTY, MA	5	3	\$86,900.00	0.00%	99.97%
OKLAHOMA COUNTY, OK	1	1	\$84,000.00	0.00%	99.97%
JEFFERSON COUNTY, LA	1	1	\$81,800.00	0.00%	99.97%
WAKE COUNTY, NC	23	5	\$81,440.96	0.00%	99.97%
DOUGLAS COUNTY, NE	5	2	\$77,072.89	0.00%	99.97%
BRISTOL COUNTY, MA	1	1	\$75,100.00	0.00%	99.97%
GUILFORD COUNTY, NC	4	2	\$73,607.00	0.00%	99.98%
BUNCOMBE COUNTY, NC	5	3	\$72,255.35	0.00%	99.98%
LORAIN COUNTY, OH	2	1	\$70,500.00	0.00%	99.98%
WORCESTER COUNTY, MA	9	4	\$67,530.00	0.00%	99.98%
NEW CASTLE COUNTY, DE	5	5	\$63,854.00	0.00%	99.98%
HAYWOOD COUNTY, NC	1	1	\$59,801.00	0.00%	99.98%

APPENDIX A: DETAILED MARKET AREA ANALYSES

COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
HAMILTON COUNTY, IN	1	1	\$56,388.59	0.00%	99.98%
PRINCE GEORGES COUNTY, MD	15	8	\$56,052.25	0.00%	99.98%
SAINT MARYS COUNTY, MD	1	1	\$55,000.00	0.00%	99.98%
OLMSTED COUNTY, MN	3	1	\$54,989.60	0.00%	99.98%
CHARLOTTE COUNTY, FL	5	2	\$54,475.00	0.00%	99.98%
STEBEN COUNTY, NY	5	2	\$52,850.00	0.00%	99.98%
OVERSEAS COUNTRY	15	7	\$52,264.14	0.00%	99.98%
ANDERSON COUNTY, TX	6	1	\$51,549.00	0.00%	99.98%
GLOUCESTER COUNTY, NJ	2	2	\$51,419.00	0.00%	99.98%
DOUGLAS COUNTY, GA	1	1	\$50,000.00	0.00%	99.98%
BUCKS COUNTY, PA	12	5	\$47,555.50	0.00%	99.98%
CLACKAMAS COUNTY, OR	5	5	\$47,450.00	0.00%	99.98%
EAU CLAIRE COUNTY, WI	38	3	\$46,318.05	0.00%	99.98%
WILLIAMSON COUNTY, TX	7	3	\$46,316.32	0.00%	99.98%
WAUKESHA COUNTY, WI	3	2	\$45,879.66	0.00%	99.98%
SUSQUEHANNA COUNTY, PA	6	1	\$45,351.81	0.00%	99.98%
GREENE COUNTY, NY	3	2	\$44,693.00	0.00%	99.98%
ALAMANCE COUNTY, NC	14	1	\$43,429.18	0.00%	99.98%
TIPPECANOE COUNTY, IN	2	1	\$43,250.00	0.00%	99.99%
BARNSTABLE COUNTY, MA	2	2	\$40,490.00	0.00%	99.99%
CHAMPAIGN COUNTY, IL	6	2	\$40,040.75	0.00%	99.99%
GREENE COUNTY, OH	3	2	\$39,963.75	0.00%	99.99%
SANTA BARBARA COUNTY, CA	8	4	\$38,743.00	0.00%	99.99%
MACOMB COUNTY, MI	3	1	\$37,775.00	0.00%	99.99%
KALAMAZOO COUNTY, MI	2	2	\$36,221.48	0.00%	99.99%
MARIPOSA COUNTY, CA	1	1	\$32,395.00	0.00%	99.99%
MONROE COUNTY, IN	6	3	\$31,100.00	0.00%	99.99%
EDGECOMBE COUNTY, NC	3	1	\$30,025.00	0.00%	99.99%
HARRISON COUNTY, OH	2	1	\$28,700.00	0.00%	99.99%
COOS COUNTY, NH	2	1	\$28,509.68	0.00%	99.99%
CHEROKEE COUNTY, GA	2	1	\$27,527.00	0.00%	99.99%
ALACHUA COUNTY, FL	5	3	\$26,740.30	0.00%	99.99%
COWLITZ COUNTY, WA	2	1	\$26,509.50	0.00%	99.99%
SANTA FE COUNTY, NM	2	2	\$25,150.00	0.00%	99.99%
BLACK HAWK COUNTY, IA	1	1	\$25,000.00	0.00%	99.99%
PORTAGE COUNTY, OH	2	2	\$24,949.00	0.00%	99.99%
WEBB COUNTY, TX	1	1	\$24,900.00	0.00%	99.99%
KNOX COUNTY, ME	4	4	\$24,650.00	0.00%	99.99%
UNION COUNTY, OH	1	1	\$24,250.00	0.00%	99.99%
WARREN COUNTY, NJ	10	4	\$23,040.00	0.00%	99.99%
SPOTSYLVANIA COUNTY, VA	3	1	\$22,470.00	0.00%	99.99%
COBB COUNTY, GA	4	2	\$22,255.00	0.00%	99.99%
BERKS COUNTY, PA	3	2	\$21,260.00	0.00%	99.99%
WINDSOR COUNTY, VT	2	2	\$21,225.00	0.00%	99.99%
CLINTON COUNTY, NY	1	1	\$21,120.00	0.00%	99.99%
DANE COUNTY, WI	4	3	\$20,955.00	0.00%	99.99%
LEHIGH COUNTY, PA	3	2	\$20,200.00	0.00%	99.99%
MONTGOMERY COUNTY, NY	1	1	\$20,000.00	0.00%	99.99%
FORSYTH COUNTY, NC	1	1	\$19,950.00	0.00%	99.99%
ONTARIO COUNTY, NY	4	2	\$19,904.16	0.00%	99.99%
JAMES CITY COUNTY, VA	1	1	\$19,900.00	0.00%	99.99%
ADA COUNTY, ID	2	2	\$19,880.56	0.00%	99.99%
CABELL COUNTY, WV	1	1	\$19,025.00	0.00%	99.99%
BAY COUNTY, FL	2	2	\$18,448.87	0.00%	99.99%
SAINT LAWRENCE COUNTY, NY	2	1	\$17,859.35	0.00%	99.99%
SEDGWICK COUNTY, KS	1	1	\$17,350.00	0.00%	99.99%
BENTON COUNTY, WA	2	2	\$16,663.00	0.00%	99.99%
CACHE COUNTY, UT	2	2	\$15,700.00	0.00%	99.99%
CLAY COUNTY, FL	2	1	\$15,600.00	0.00%	99.99%
PIERCE COUNTY, WA	2	2	\$15,411.89	0.00%	99.99%
HARFORD COUNTY, MD	1	1	\$15,400.00	0.00%	99.99%

APPENDIX A: DETAILED MARKET AREA ANALYSES

COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
VENTURA COUNTY, CA	2	2	\$15,313.75	0.00%	99.99%
SAINT JOHNS COUNTY, FL	2	2	\$15,048.00	0.00%	99.99%
CLARKE COUNTY, GA	1	1	\$15,000.00	0.00%	99.99%
STANISLAUS COUNTY, CA	2	1	\$15,000.00	0.00%	99.99%
LANE COUNTY, OR	5	3	\$14,999.00	0.00%	99.99%
CENTRE COUNTY, PA	6	1	\$14,707.20	0.00%	99.99%
ORLEANS COUNTY, LA	2	1	\$14,600.00	0.00%	99.99%
WARREN COUNTY, KY	1	1	\$14,579.99	0.00%	99.99%
ATLANTIC COUNTY, NJ	3	1	\$14,500.00	0.00%	99.99%
SAINT LOUIS COUNTY, MO	4	3	\$14,230.00	0.00%	99.99%
GLOUCESTER COUNTY, VA	2	1	\$14,168.00	0.00%	99.99%
ONEIDA COUNTY, NY	2	2	\$14,125.00	0.00%	99.99%
NEWPORT COUNTY, RI	2	2	\$13,646.33	0.00%	99.99%
MONROE COUNTY, PA	8	2	\$13,454.50	0.00%	100.00%
MONTGOMERY COUNTY, TX	4	3	\$13,355.00	0.00%	100.00%
DAVISS COUNTY, KY	6	1	\$13,230.00	0.00%	100.00%
ROCKINGHAM COUNTY, NH	3	3	\$12,868.72	0.00%	100.00%
BRYAN COUNTY, GA	5	1	\$11,975.00	0.00%	100.00%
HINDS COUNTY, MS	3	2	\$11,783.69	0.00%	100.00%
MERRIMACK COUNTY, NH	1	1	\$11,664.00	0.00%	100.00%
RENSSELAER COUNTY, NY	5	5	\$11,649.00	0.00%	100.00%
DAVIDSON COUNTY, TN	7	5	\$11,167.60	0.00%	100.00%
DAVIE COUNTY, NC	2	1	\$11,000.00	0.00%	100.00%
BERKSHIRE COUNTY, MA	4	2	\$10,800.00	0.00%	100.00%
INDIAN RIVER COUNTY, FL	2	1	\$10,800.00	0.00%	100.00%
KENT COUNTY, DE	6	1	\$10,500.05	0.00%	100.00%
MAHONING COUNTY, OH	1	1	\$10,425.00	0.00%	100.00%
MASON COUNTY, KY	1	1	\$10,400.00	0.00%	100.00%
FRANKLIN COUNTY, NY	2	2	\$10,296.50	0.00%	100.00%
CUMBERLAND COUNTY, PA	5	3	\$10,160.45	0.00%	100.00%
KNOX COUNTY, TN	1	1	\$10,008.00	0.00%	100.00%
CAPE MAY COUNTY, NJ	1	1	\$10,000.00	0.00%	100.00%
SAN JUAN COUNTY, PR	1	1	\$10,000.00	0.00%	100.00%
PULASKI COUNTY, AR	3	3	\$9,904.09	0.00%	100.00%
SULLIVAN COUNTY, NH	1	1	\$9,375.00	0.00%	100.00%
LIVINGSTON COUNTY, LA	1	1	\$9,245.00	0.00%	100.00%
LINCOLN COUNTY, ME	1	1	\$9,000.00	0.00%	100.00%
HENDERSON COUNTY, NC	1	1	\$8,831.03	0.00%	100.00%
DURHAM COUNTY, NC	8	2	\$8,373.00	0.00%	100.00%
WALKER COUNTY, AL	2	1	\$8,250.00	0.00%	100.00%
WASHINGTON COUNTY, OR	1	1	\$8,000.00	0.00%	100.00%
RICE COUNTY, MN	11	1	\$7,905.00	0.00%	100.00%
PICKENS COUNTY, SC	1	1	\$7,750.00	0.00%	100.00%
STARK COUNTY, OH	1	1	\$7,600.00	0.00%	100.00%
FORT BEND COUNTY, TX	1	1	\$7,560.00	0.00%	100.00%
BERNALILLO COUNTY, NM	5	2	\$7,540.00	0.00%	100.00%
JEFFERSON COUNTY, IA	1	1	\$7,260.00	0.00%	100.00%
WAYNE COUNTY, NY	3	2	\$7,075.00	0.00%	100.00%
YAVAPAI COUNTY, AZ	3	2	\$6,950.00	0.00%	100.00%
LITCHFIELD COUNTY, CT	2	2	\$6,884.00	0.00%	100.00%
YORK COUNTY, PA	3	2	\$6,849.92	0.00%	100.00%
NEW HANOVER COUNTY, NC	3	1	\$6,750.00	0.00%	100.00%
BUTLER COUNTY, PA	2	1	\$6,500.00	0.00%	100.00%
ESCAMBIA COUNTY, FL	3	2	\$6,472.62	0.00%	100.00%
SAN BERNARDINO COUNTY, CA	2	2	\$6,242.20	0.00%	100.00%
WOODFORD COUNTY, IL	1	1	\$6,199.00	0.00%	100.00%
SNOHOMISH COUNTY, WA	2	2	\$6,084.92	0.00%	100.00%
JEFFERSON COUNTY, AL	3	2	\$5,750.00	0.00%	100.00%
BROWN COUNTY, WI	8	2	\$5,510.24	0.00%	100.00%
SAINT LUCIE COUNTY, FL	1	1	\$5,502.40	0.00%	100.00%
WASHINGTON COUNTY, PA	2	2	\$5,450.00	0.00%	100.00%

APPENDIX A: DETAILED MARKET AREA ANALYSES

COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
SENECA COUNTY, NY	4	1	\$5,400.00	0.00%	100.00%
SMITH COUNTY, TX	3	1	\$5,250.00	0.00%	100.00%
GENESEE COUNTY, MI	2	2	\$5,000.00	0.00%	100.00%
WASHINGTON COUNTY, VT	1	1	\$5,000.00	0.00%	100.00%
YOLO COUNTY, CA	1	1	\$5,000.00	0.00%	100.00%
NORFOLK CITY COUNTY, VA	1	1	\$4,999.95	0.00%	100.00%
UNION COUNTY, NC	1	1	\$4,999.50	0.00%	100.00%
SALINE COUNTY, KS	1	1	\$4,990.91	0.00%	100.00%
DAVIS COUNTY, UT	1	1	\$4,990.00	0.00%	100.00%
PONCE COUNTY, PR	1	1	\$4,970.00	0.00%	100.00%
MUSCATINE COUNTY, IA	1	1	\$4,950.00	0.00%	100.00%
ROCK COUNTY, WI	2	2	\$4,832.26	0.00%	100.00%
CAMERON COUNTY, TX	1	1	\$4,800.00	0.00%	100.00%
CLERMONT COUNTY, OH	1	1	\$4,800.00	0.00%	100.00%
ROANOKE CITY COUNTY, VA	4	1	\$4,785.00	0.00%	100.00%
TOLLAND COUNTY, CT	2	1	\$4,687.50	0.00%	100.00%
HAMPDEN COUNTY, MA	5	2	\$4,650.00	0.00%	100.00%
RANDOLPH COUNTY, AR	2	1	\$4,550.00	0.00%	100.00%
VANDEBURGH COUNTY, IN	3	2	\$4,500.00	0.00%	100.00%
MARION COUNTY, FL	1	1	\$4,499.88	0.00%	100.00%
PROVIDENCE COUNTY, RI	1	1	\$4,400.00	0.00%	100.00%
BOONE COUNTY, MO	1	1	\$4,263.00	0.00%	100.00%
SAINT LOUIS COUNTY, MN	1	1	\$4,069.80	0.00%	100.00%
QUEEN ANNES COUNTY, MD	1	1	\$3,949.00	0.00%	100.00%
STAFFORD COUNTY, VA	2	2	\$3,787.50	0.00%	100.00%
ARCHULETA COUNTY, CO	1	1	\$3,750.00	0.00%	100.00%
WASHOE COUNTY, NV	1	1	\$3,190.00	0.00%	100.00%
BROOME COUNTY, NY	2	1	\$3,111.50	0.00%	100.00%
SHELBY COUNTY, TN	2	2	\$3,000.00	0.00%	100.00%
CHESHIRE COUNTY, NH	1	1	\$2,890.00	0.00%	100.00%
CARLTON COUNTY, MN	2	2	\$2,773.68	0.00%	100.00%
EL PASO COUNTY, CO	1	1	\$2,750.00	0.00%	100.00%
GILLESPIE COUNTY, TX	1	1	\$2,691.00	0.00%	100.00%
MIDDLESEX COUNTY, CT	3	3	\$2,683.42	0.00%	100.00%
SIMPSON COUNTY, MS	1	1	\$2,650.00	0.00%	100.00%
PIKE COUNTY, PA	1	1	\$2,570.00	0.00%	100.00%
SULLIVAN COUNTY, NY	7	2	\$2,525.00	0.00%	100.00%
WARREN COUNTY, OH	1	1	\$2,499.00	0.00%	100.00%
HANCOCK COUNTY, ME	1	1	\$2,400.00	0.00%	100.00%
WASHINGTON COUNTY, MD	1	1	\$2,375.00	0.00%	100.00%
PORTER COUNTY, IN	1	1	\$2,250.00	0.00%	100.00%
HOLMES COUNTY, OH	1	1	\$2,231.50	0.00%	100.00%
EL DORADO COUNTY, CA	1	1	\$2,000.00	0.00%	100.00%
WALWORTH COUNTY, WI	1	1	\$1,750.00	0.00%	100.00%
CURRITUCK COUNTY, NC	1	1	\$1,600.00	0.00%	100.00%
CHEMUNG COUNTY, NY	1	1	\$1,500.00	0.00%	100.00%
NOLAN COUNTY, TX	7	1	\$1,369.23	0.00%	100.00%
CROW WING COUNTY, MN	1	1	\$1,311.57	0.00%	100.00%
HAYS COUNTY, TX	2	1	\$1,200.00	0.00%	100.00%
JEFFERSON COUNTY, KY	3	3	\$1,200.00	0.00%	100.00%
KENNEBEC COUNTY, ME	1	1	\$1,200.00	0.00%	100.00%
ANDERSON COUNTY, TN	2	2	\$1,118.60	0.00%	100.00%
LINCOLN COUNTY, LA	1	1	\$1,110.00	0.00%	100.00%
JACKSON COUNTY, OR	1	1	\$1,100.00	0.00%	100.00%
HONOLULU COUNTY, HI	1	1	\$1,029.20	0.00%	100.00%
JAY COUNTY, IN	1	1	\$1,000.00	0.00%	100.00%
ANCHORAGE BOROUGH, AK	1	1	\$972.50	0.00%	100.00%
WOOD COUNTY, OH	1	1	\$836.70	0.00%	100.00%
CHATHAM COUNTY, GA	1	1	\$799.20	0.00%	100.00%
SARASOTA COUNTY, FL	1	1	\$750.00	0.00%	100.00%
KENTON COUNTY, KY	1	1	\$676.00	0.00%	100.00%

APPENDIX A: DETAILED MARKET AREA ANALYSES

COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
LEWIS COUNTY, NY	2	2	\$576.63	0.00%	100.00%
FREMONT COUNTY, WY	1	1	\$561.71	0.00%	100.00%
CHENANGO COUNTY, NY	1	1	\$550.00	0.00%	100.00%
WALTON COUNTY, FL	1	1	\$546.28	0.00%	100.00%
HOWARD COUNTY, NE	1	1	\$523.30	0.00%	100.00%
MONONGALIA COUNTY, WV	1	1	\$500.00	0.00%	100.00%
PIERCE COUNTY, WI	1	1	\$493.50	0.00%	100.00%
PAYNE COUNTY, OK	1	1	\$493.04	0.00%	100.00%
OTSEGO COUNTY, NY	2	1	\$465.00	0.00%	100.00%
GRAINGER COUNTY, TN	1	1	\$450.00	0.00%	100.00%
POLK COUNTY, IA	1	1	\$435.96	0.00%	100.00%
WASHINGTON COUNTY, NE	1	1	\$404.05	0.00%	100.00%
SALEM CITY COUNTY, VA	1	1	\$400.00	0.00%	100.00%
OCONTO COUNTY, WI	1	1	\$394.40	0.00%	100.00%
MASON COUNTY, WA	1	1	\$389.80	0.00%	100.00%
CAMBRIA COUNTY, PA	1	1	\$360.00	0.00%	100.00%
BROOMFIELD COUNTY, CO	1	1	\$354.20	0.00%	100.00%
CHITTENDEN COUNTY, VT	1	1	\$335.00	0.00%	100.00%
KENOSHA COUNTY, WI	1	1	\$325.70	0.00%	100.00%
FAYETTE COUNTY, KY	1	1	\$301.34	0.00%	100.00%
LAKE COUNTY, IN	1	1	\$300.00	0.00%	100.00%
VOLUSIA COUNTY, FL	1	1	\$291.00	0.00%	100.00%
RUTLAND COUNTY, VT	2	2	\$278.72	0.00%	100.00%
COLLIN COUNTY, TX	1	1	\$258.00	0.00%	100.00%
PEORIA COUNTY, IL	1	1	\$255.00	0.00%	100.00%
SPOKANE COUNTY, WA	1	1	\$229.17	0.00%	100.00%
SAN LUIS OBISPO COUNTY, CA	1	1	\$199.90	0.00%	100.00%
ORANGE COUNTY, VT	1	1	\$158.05	0.00%	100.00%
SEMINOLE COUNTY, FL	2	2	\$150.00	0.00%	100.00%
LYCOMING COUNTY, PA	1	1	\$148.05	0.00%	100.00%
ALLEGAN COUNTY, MI	1	1	\$-	0.00%	100.00%
BREVARD COUNTY, FL	1	1	\$-	0.00%	100.00%
DENTON COUNTY, TX	1	1	\$-	0.00%	100.00%
KENT COUNTY, RI	2	2	\$-	0.00%	100.00%
SARPY COUNTY, NE	1	1	\$-	0.00%	100.00%
WILL COUNTY, IL	1	1	\$-	0.00%	100.00%

Source: MGT developed a Master Prime File based on dollars expended by the City of New York between July 1, 2006 and June 30, 2015.

¹ Cumulative percent of total dollars for location of firms (market area) to Location of firms listed to the dotted line represent counties and states in the City's five boroughs, to the solid line represent counties and states considered to be eligible for Minority and Women-owned Business Enterprise (M/WBE) Certification, and to the double line represent counties and states in the New York-Newark-Jersey City, NY-NJ-PA Metropolitan Statistical Area (MSA).

TABLE A-5: MARKET AREA ANALYSIS, PRIME LEVEL DISTRIBUTION OF DOLLARS BY LOCATION OF FIRM (COUNTY, STATE), STANDARDIZED SERVICES

COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
KINGS COUNTY, NY	7586	966	\$6,279,377,287.00	28.35%	28.35%
NEW YORK COUNTY, NY	14401	1393	\$4,974,235,170.20	22.46%	50.81%
QUEENS COUNTY, NY	5966	1022	\$2,033,206,473.30	9.18%	60.00%
RICHMOND COUNTY, NY	1090	239	\$463,976,454.55	2.10%	62.09%
BRONX COUNTY, NY	1737	338	\$210,338,741.11	0.95%	63.04%
NASSAU COUNTY, NY	2276	486	\$638,210,910.19	2.88%	65.92%
BERGEN COUNTY, NJ	746	162	\$458,930,455.87	2.07%	67.99%
SUFFOLK COUNTY, NY	1765	360	\$444,638,527.83	2.01%	70.00%
WESTCHESTER COUNTY, NY	795	248	\$185,317,950.92	0.84%	70.84%
PASSAIC COUNTY, NJ	246	39	\$153,066,591.08	0.69%	71.53%
HUDSON COUNTY, NJ	348	66	\$115,065,187.26	0.52%	72.05%
ROCKLAND COUNTY, NY	199	49	\$63,431,019.56	0.29%	72.34%
PUTNAM COUNTY, NY	61	18	\$1,612,753.30	0.01%	72.34%
ESSEX COUNTY, NJ	334	80	\$3,593,910,592.60	16.23%	88.57%
MIDDLESEX COUNTY, NJ	363	91	\$493,385,278.62	2.23%	90.80%
MORRIS COUNTY, NJ	310	68	\$131,047,159.91	0.59%	91.39%
MONMOUTH COUNTY, NJ	235	47	\$74,059,502.89	0.33%	91.73%
SOMERSET COUNTY, NJ	147	38	\$71,621,624.23	0.32%	92.05%
UNION COUNTY, NJ	247	55	\$62,514,646.03	0.28%	92.33%
ORANGE COUNTY, NY	110	50	\$17,043,653.86	0.08%	92.41%
OCEAN COUNTY, NJ	37	12	\$9,200,202.78	0.04%	92.45%
SUSSEX COUNTY, NJ	19	8	\$1,936,634.27	0.01%	92.46%
DUTCHESS COUNTY, NY	64	28	\$835,637.88	0.00%	92.46%
HUNTERDON COUNTY, NJ	25	8	\$213,866.03	0.00%	92.46%
MARICOPA COUNTY, AZ	83	22	\$159,247,909.58	0.72%	93.18%
NORFOLK CITY COUNTY, VA	6	3	\$125,793,032.81	0.57%	93.75%
CAYUGA COUNTY, NY	9	3	\$116,738,594.25	0.53%	94.28%
SENECA COUNTY, NY	15	2	\$110,973,294.17	0.50%	94.78%
GWINNETT COUNTY, GA	23	12	\$106,985,949.05	0.48%	95.26%
DALLAS COUNTY, TX	127	41	\$100,161,518.79	0.45%	95.71%
COOK COUNTY, IL	608	130	\$58,435,499.55	0.26%	95.98%
BAY COUNTY, FL	1	1	\$56,479,494.38	0.26%	96.23%
MONTEREY COUNTY, CA	220	3	\$43,207,810.69	0.20%	96.43%
CLACKAMAS COUNTY, OR	15	12	\$42,467,497.70	0.19%	96.62%
DOUGLAS COUNTY, NE	53	10	\$37,138,521.15	0.17%	96.79%
FAIRFIELD COUNTY, CT	147	36	\$36,590,302.23	0.17%	96.95%
KALAMAZOO COUNTY, MI	7	1	\$35,235,296.56	0.16%	97.11%
FULTON COUNTY, GA	241	34	\$31,577,681.81	0.14%	97.25%
BURLINGTON COUNTY, NJ	138	18	\$31,456,628.92	0.14%	97.40%
VIRGINIA BEACH CITY COUNTY, VA	170	6	\$28,913,570.77	0.13%	97.53%
LOS ANGELES COUNTY, CA	221	67	\$27,089,739.65	0.12%	97.65%
KING COUNTY, WA	93	30	\$24,307,742.53	0.11%	97.76%
ALLEGHENY COUNTY, PA	229	23	\$23,326,842.74	0.11%	97.86%
SAN DIEGO COUNTY, CA	88	36	\$23,172,215.82	0.10%	97.97%
SUFFOLK COUNTY, MA	40	18	\$21,264,997.49	0.10%	98.06%
FAIRFAX COUNTY, VA	130	23	\$18,700,361.27	0.08%	98.15%
ANNE ARUNDEL COUNTY, MD	6	3	\$16,605,615.00	0.07%	98.22%
HAMILTON COUNTY, OH	41	13	\$15,870,933.19	0.07%	98.30%
NEW LONDON COUNTY, CT	14	10	\$14,680,793.35	0.07%	98.36%
EAST BATON ROUGE COUNTY, LA	5	4	\$13,344,812.32	0.06%	98.42%
CECIL COUNTY, MD	3	1	\$13,051,429.25	0.06%	98.48%
MONROE COUNTY, NY	119	31	\$12,153,696.60	0.05%	98.54%
SAINT LOUIS COUNTY, MO	10	6	\$12,024,691.78	0.05%	98.59%
ESSEX COUNTY, MA	41	18	\$11,649,903.78	0.05%	98.64%
MONTGOMERY COUNTY, PA	78	26	\$10,987,003.34	0.05%	98.69%

APPENDIX A: DETAILED MARKET AREA ANALYSES

COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
BOULDER COUNTY, CO	49	12	\$10,598,133.82	0.05%	98.74%
ARAPAHOE COUNTY, CO	58	21	\$10,062,959.11	0.05%	98.79%
PHILADELPHIA COUNTY, PA	72	23	\$9,972,244.08	0.05%	98.83%
HARRIS COUNTY, TX	72	24	\$9,379,211.60	0.04%	98.87%
HARTFORD COUNTY, CT	74	31	\$8,895,175.46	0.04%	98.91%
PEORIA COUNTY, IL	2	1	\$8,444,024.43	0.04%	98.95%
BERKS COUNTY, PA	15	5	\$8,008,941.36	0.04%	98.99%
FREDERICK COUNTY, MD	22	7	\$7,911,146.60	0.04%	99.02%
RICHMOND CITY COUNTY, VA	67	7	\$7,813,675.09	0.04%	99.06%
ERIE COUNTY, NY	40	20	\$7,497,173.55	0.03%	99.09%
LOUDOUN COUNTY, VA	96	27	\$7,474,712.81	0.03%	99.13%
SAN MATEO COUNTY, CA	69	17	\$6,959,288.20	0.03%	99.16%
CANADA	93	32	\$6,805,456.32	0.03%	99.19%
PIMA COUNTY, AZ	25	5	\$6,685,532.93	0.03%	99.22%
LA PORTE COUNTY, IN	2	2	\$5,898,988.00	0.03%	99.25%
SACRAMENTO COUNTY, CA	19	10	\$5,839,646.81	0.03%	99.27%
BRISTOL COUNTY, MA	15	6	\$5,672,654.98	0.03%	99.30%
SONOMA COUNTY, CA	18	4	\$5,329,408.81	0.02%	99.32%
LEE COUNTY, IL	4	1	\$4,907,564.60	0.02%	99.34%
VENTURA COUNTY, CA	13	5	\$4,864,326.32	0.02%	99.37%
GLOUCESTER COUNTY, NJ	17	5	\$4,725,012.76	0.02%	99.39%
ALBANY COUNTY, NY	102	32	\$4,621,077.79	0.02%	99.41%
BROWARD COUNTY, FL	66	14	\$4,445,784.94	0.02%	99.43%
MIDDLESEX COUNTY, MA	137	50	\$4,372,249.79	0.02%	99.45%
LUZERNE COUNTY, PA	11	7	\$4,312,819.82	0.02%	99.47%
MINNEHAHA COUNTY, SD	69	2	\$4,268,826.89	0.02%	99.49%
HENDERSON COUNTY, NC	3	2	\$4,261,729.50	0.02%	99.51%
SANTA CLARA COUNTY, CA	95	36	\$4,103,571.14	0.02%	99.52%
SANTA BARBARA COUNTY, CA	35	7	\$3,903,619.86	0.02%	99.54%
BROOME COUNTY, NY	11	5	\$3,843,452.69	0.02%	99.56%
SALT LAKE COUNTY, UT	35	8	\$3,631,405.79	0.02%	99.58%
SAN FRANCISCO COUNTY, CA	45	13	\$3,599,214.06	0.02%	99.59%
DUPAGE COUNTY, IL	108	15	\$3,469,071.90	0.02%	99.61%
BEXAR COUNTY, TX	35	11	\$3,256,131.02	0.01%	99.62%
ONONDAGA COUNTY, NY	55	17	\$3,252,299.92	0.01%	99.64%
BUCKS COUNTY, PA	61	17	\$3,143,769.25	0.01%	99.65%
SAINT LOUIS COUNTY, MN	2	2	\$3,136,227.41	0.01%	99.67%
CARROLL COUNTY, MD	4	3	\$2,686,601.25	0.01%	99.68%
NEW HAVEN COUNTY, CT	70	29	\$2,598,506.68	0.01%	99.69%
MIAMI-DADE COUNTY, FL	18	8	\$2,408,071.41	0.01%	99.70%
ORANGE COUNTY, CA	93	37	\$2,127,816.07	0.01%	99.71%
ESCAMBIA COUNTY, FL	3	2	\$2,098,506.85	0.01%	99.72%
HENNEPIN COUNTY, MN	150	27	\$2,015,658.14	0.01%	99.73%
THURSTON COUNTY, WA	3	2	\$2,002,295.00	0.01%	99.74%
MONROE COUNTY, PA	39	5	\$1,914,827.42	0.01%	99.75%
CHESTER COUNTY, PA	40	11	\$1,860,076.50	0.01%	99.75%
BUNCOMBE COUNTY, NC	2	2	\$1,619,579.00	0.01%	99.76%
SARATOGA COUNTY, NY	10	6	\$1,615,292.46	0.01%	99.77%
MECKLENBURG COUNTY, NC	30	14	\$1,597,316.27	0.01%	99.78%
MILWAUKEE COUNTY, WI	11	7	\$1,542,271.21	0.01%	99.78%
WARREN COUNTY, NJ	16	8	\$1,529,316.78	0.01%	99.79%
SANGAMON COUNTY, IL	8	2	\$1,506,264.53	0.01%	99.80%
MIDDLESEX COUNTY, CT	30	9	\$1,473,783.48	0.01%	99.80%
WESTMORELAND COUNTY, PA	8	4	\$1,440,413.75	0.01%	99.81%
ULSTER COUNTY, NY	130	45	\$1,433,746.86	0.01%	99.82%
GREENVILLE COUNTY, SC	14	5	\$1,410,527.91	0.01%	99.82%
WAYNE COUNTY, MI	18	9	\$1,400,907.40	0.01%	99.83%
MERCER COUNTY, NJ	48	15	\$1,287,153.00	0.01%	99.83%
ONTARIO COUNTY, NY	16	8	\$1,243,384.58	0.01%	99.84%

APPENDIX A: DETAILED MARKET AREA ANALYSES

COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
CAMDEN COUNTY, NJ	73	8	\$1,177,414.75	0.01%	99.85%
CUYAHOGA COUNTY, OH	24	12	\$1,108,287.02	0.01%	99.85%
TARRANT COUNTY, TX	9	5	\$1,044,015.57	0.00%	99.86%
DISTRICT OF COLUMBIA, DC	35	15	\$957,859.13	0.00%	99.86%
BALTIMORE CITY COUNTY, MD	30	12	\$949,474.54	0.00%	99.86%
MONTGOMERY COUNTY, MD	71	22	\$946,187.89	0.00%	99.87%
ALAMEDA COUNTY, CA	62	16	\$934,659.23	0.00%	99.87%
GRAFTON COUNTY, NH	16	3	\$900,974.33	0.00%	99.88%
FORSYTH COUNTY, GA	38	1	\$873,205.22	0.00%	99.88%
LAKE COUNTY, IL	39	11	\$830,562.44	0.00%	99.88%
MCKEAN COUNTY, PA	3	1	\$780,304.00	0.00%	99.89%
WORCESTER COUNTY, MA	24	6	\$708,014.50	0.00%	99.89%
LEON COUNTY, FL	6	4	\$696,461.35	0.00%	99.89%
RICHLAND COUNTY, OH	1	1	\$688,720.00	0.00%	99.90%
HILLSBOROUGH COUNTY, NH	26	9	\$672,717.36	0.00%	99.90%
FAYETTE COUNTY, IN	1	1	\$672,100.00	0.00%	99.90%
SEDGWICK COUNTY, KS	3	3	\$644,749.95	0.00%	99.91%
ROCKINGHAM COUNTY, NC	2	1	\$605,764.00	0.00%	99.91%
DORCHESTER COUNTY, MD	6	1	\$566,917.04	0.00%	99.91%
DENTON COUNTY, TX	39	2	\$566,574.67	0.00%	99.91%
LACKAWANNA COUNTY, PA	10	5	\$553,548.04	0.00%	99.92%
PRINCE WILLIAM COUNTY, VA	2	1	\$537,857.79	0.00%	99.92%
WARREN COUNTY, NY	1	1	\$532,200.00	0.00%	99.92%
MONTGOMERY COUNTY, TX	18	4	\$490,599.51	0.00%	99.92%
SUSSEX COUNTY, DE	4	1	\$478,917.83	0.00%	99.93%
WASHTENAW COUNTY, MI	8	4	\$471,250.96	0.00%	99.93%
JEFFERSON COUNTY, KY	7	4	\$451,557.36	0.00%	99.93%
PENOBSCOT COUNTY, ME	1	1	\$411,800.00	0.00%	99.93%
TRAVIS COUNTY, TX	81	15	\$379,413.96	0.00%	99.93%
LANE COUNTY, OR	2	1	\$364,481.64	0.00%	99.94%
PALM BEACH COUNTY, FL	40	12	\$357,884.73	0.00%	99.94%
MERRIMACK COUNTY, NH	13	6	\$336,537.01	0.00%	99.94%
BRISTOL COUNTY, RI	7	3	\$316,563.52	0.00%	99.94%
HIGHLANDS COUNTY, FL	3	1	\$306,514.75	0.00%	99.94%
HILLSBOROUGH COUNTY, FL	23	9	\$305,614.02	0.00%	99.94%
LA PLATA COUNTY, CO	8	1	\$303,492.01	0.00%	99.94%
LEHIGH COUNTY, PA	12	7	\$292,929.39	0.00%	99.95%
CLARK COUNTY, NV	10	7	\$266,839.00	0.00%	99.95%
ATLANTIC COUNTY, NJ	8	2	\$260,588.10	0.00%	99.95%
EL PASO COUNTY, CO	24	8	\$260,209.71	0.00%	99.95%
SAINT LOUIS CITY COUNTY, MO	18	7	\$238,692.71	0.00%	99.95%
CLERMONT COUNTY, OH	9	1	\$231,903.00	0.00%	99.95%
SNOHOMISH COUNTY, WA	13	5	\$231,776.15	0.00%	99.95%
NEW CASTLE COUNTY, DE	23	8	\$207,364.38	0.00%	99.95%
SULLIVAN COUNTY, NY	32	14	\$206,704.64	0.00%	99.95%
PLYMOUTH COUNTY, MA	25	10	\$191,722.96	0.00%	99.95%
JEFFERSON COUNTY, CO	5	3	\$190,958.37	0.00%	99.96%
GREENE COUNTY, MO	7	1	\$188,320.00	0.00%	99.96%
MONTGOMERY COUNTY, OH	9	5	\$178,019.30	0.00%	99.96%
PIERCE COUNTY, WI	5	1	\$175,000.00	0.00%	99.96%
PROVIDENCE COUNTY, RI	7	4	\$174,871.17	0.00%	99.96%
BERKSHIRE COUNTY, MA	19	1	\$172,000.00	0.00%	99.96%
CHESAPEAKE CITY COUNTY, VA	12	4	\$169,679.88	0.00%	99.96%
DAUPHIN COUNTY, PA	6	6	\$163,211.60	0.00%	99.96%
UTAH COUNTY, UT	23	9	\$162,182.20	0.00%	99.96%
GUILFORD COUNTY, NC	10	3	\$160,580.13	0.00%	99.96%
FREDERICKSBURG CITY COUNTY, VA	4	4	\$157,374.20	0.00%	99.96%
SUMMIT COUNTY, OH	3	3	\$153,175.00	0.00%	99.96%
LAKE COUNTY, OH	4	4	\$150,896.03	0.00%	99.96%

APPENDIX A: DETAILED MARKET AREA ANALYSES

COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
SCHLEY COUNTY, GA	2	1	\$139,251.88	0.00%	99.97%
WAUKESHA COUNTY, WI	10	6	\$134,979.15	0.00%	99.97%
FRANKLIN COUNTY, OH	18	13	\$134,883.53	0.00%	99.97%
NORTHAMPTON COUNTY, VA	1	1	\$130,072.14	0.00%	99.97%
HOWARD COUNTY, MD	13	7	\$127,498.12	0.00%	99.97%
SAUK COUNTY, WI	8	1	\$125,597.29	0.00%	99.97%
KENT COUNTY, MI	7	3	\$123,945.23	0.00%	99.97%
ORANGE COUNTY, FL	10	5	\$121,971.60	0.00%	99.97%
DANE COUNTY, WI	19	8	\$120,026.94	0.00%	99.97%
KITSAP COUNTY, WA	8	2	\$119,688.46	0.00%	99.97%
STEBEN COUNTY, NY	2	1	\$119,313.34	0.00%	99.97%
ALBANY COUNTY, WY	7	1	\$113,400.00	0.00%	99.97%
DELAWARE COUNTY, PA	22	10	\$112,496.53	0.00%	99.97%
TOMPKINS COUNTY, NY	8	2	\$111,039.78	0.00%	99.97%
GENESEE COUNTY, MI	14	2	\$110,490.05	0.00%	99.97%
JACKSON COUNTY, MO	7	4	\$107,311.95	0.00%	99.97%
NORFOLK COUNTY, MA	9	5	\$105,070.59	0.00%	99.97%
WAKE COUNTY, NC	17	9	\$102,226.07	0.00%	99.97%
WASHINGTON COUNTY, OR	13	3	\$102,175.67	0.00%	99.97%
WINNEBAGO COUNTY, IL	3	1	\$101,375.40	0.00%	99.98%
ANDERSON COUNTY, TN	3	1	\$99,500.00	0.00%	99.98%
WASHINGTON COUNTY, UT	2	1	\$98,600.00	0.00%	99.98%
GREENE COUNTY, NY	19	8	\$98,558.50	0.00%	99.98%
WASHINGTON COUNTY, RI	13	2	\$97,474.30	0.00%	99.98%
MONTGOMERY COUNTY, VA	1	1	\$97,026.00	0.00%	99.98%
NIAGARA COUNTY, NY	2	1	\$97,015.50	0.00%	99.98%
WILLIAMSON COUNTY, TN	6	4	\$94,720.02	0.00%	99.98%
CACHE COUNTY, UT	3	2	\$90,376.59	0.00%	99.98%
MADISON COUNTY, MS	6	2	\$89,046.85	0.00%	99.98%
SCHENECTADY COUNTY, NY	3	3	\$87,753.00	0.00%	99.98%
MARSHALL COUNTY, IN	3	1	\$87,524.78	0.00%	99.98%
MARIN COUNTY, CA	9	6	\$87,330.50	0.00%	99.98%
MIAMI COUNTY, KS	8	2	\$84,477.90	0.00%	99.98%
PRINCE GEORGES COUNTY, MD	7	5	\$81,379.53	0.00%	99.98%
MARION COUNTY, IN	9	6	\$78,171.00	0.00%	99.98%
PINELLAS COUNTY, FL	14	6	\$77,663.77	0.00%	99.98%
MASON COUNTY, KY	6	1	\$76,462.83	0.00%	99.98%
LITCHFIELD COUNTY, CT	17	4	\$75,614.49	0.00%	99.98%
CATTARAUGUS COUNTY, NY	1	1	\$75,000.00	0.00%	99.98%
SCOTT COUNTY, MN	10	1	\$74,765.00	0.00%	99.98%
TELLER COUNTY, CO	7	1	\$74,040.00	0.00%	99.98%
CLINTON COUNTY, NY	4	2	\$72,850.00	0.00%	99.98%
JEFFERSON COUNTY, NY	1	1	\$67,697.00	0.00%	99.98%
RIVERSIDE COUNTY, CA	15	9	\$65,888.26	0.00%	99.98%
LARIMER COUNTY, CO	8	5	\$63,737.00	0.00%	99.98%
CONTRA COSTA COUNTY, CA	18	7	\$63,147.90	0.00%	99.99%
BENTON COUNTY, WA	5	1	\$62,400.00	0.00%	99.99%
HAMPDEN COUNTY, MA	8	4	\$61,935.00	0.00%	99.99%
JOHNSON COUNTY, KS	13	7	\$59,353.27	0.00%	99.99%
ADA COUNTY, ID	5	2	\$59,001.00	0.00%	99.99%
ROCKINGHAM COUNTY, NH	11	4	\$57,581.95	0.00%	99.99%
CASS COUNTY, ND	1	1	\$56,909.00	0.00%	99.99%
OAKLAND COUNTY, MI	9	4	\$54,641.00	0.00%	99.99%
ORANGE COUNTY, NC	10	4	\$51,259.39	0.00%	99.99%
DEKALB COUNTY, GA	3	1	\$50,600.00	0.00%	99.99%
SAN BERNARDINO COUNTY, CA	9	6	\$50,538.25	0.00%	99.99%
DARKE COUNTY, OH	9	5	\$50,527.64	0.00%	99.99%
COBB COUNTY, GA	7	6	\$50,460.69	0.00%	99.99%
ONEIDA COUNTY, NY	10	3	\$49,705.31	0.00%	99.99%

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COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
COLLIER COUNTY, FL	2	1	\$49,633.20	0.00%	99.99%
BUTLER COUNTY, PA	2	2	\$48,685.00	0.00%	99.99%
INGHAM COUNTY, MI	9	2	\$46,424.90	0.00%	99.99%
POLK COUNTY, FL	4	2	\$45,163.00	0.00%	99.99%
YORK COUNTY, PA	12	6	\$44,932.50	0.00%	99.99%
WASHINGTON COUNTY, PA	6	3	\$44,866.81	0.00%	99.99%
OVERSEAS COUNTRY	7	3	\$44,512.00	0.00%	99.99%
HALL COUNTY, GA	1	1	\$43,700.00	0.00%	99.99%
PLACER COUNTY, CA	5	2	\$43,532.12	0.00%	99.99%
STRAFFORD COUNTY, NH	4	3	\$42,249.29	0.00%	99.99%
NORTHAMPTON COUNTY, PA	4	3	\$42,150.00	0.00%	99.99%
KANE COUNTY, IL	2	1	\$42,030.00	0.00%	99.99%
COLLIN COUNTY, TX	5	3	\$41,057.98	0.00%	99.99%
CUMBERLAND COUNTY, ME	3	3	\$40,861.92	0.00%	99.99%
SARASOTA COUNTY, FL	16	5	\$39,763.85	0.00%	99.99%
COLUMBIA COUNTY, NY	2	2	\$39,004.50	0.00%	99.99%
DELAWARE COUNTY, NY	18	8	\$38,679.49	0.00%	99.99%
HORRY COUNTY, SC	1	1	\$38,547.00	0.00%	99.99%
SANTA CRUZ COUNTY, CA	18	4	\$38,471.22	0.00%	99.99%
INDIANA COUNTY, PA	3	1	\$38,101.50	0.00%	99.99%
CENTRE COUNTY, PA	4	3	\$37,140.15	0.00%	99.99%
KENTON COUNTY, KY	4	2	\$35,656.00	0.00%	99.99%
SHELBY COUNTY, TN	8	3	\$35,604.80	0.00%	99.99%
DAVISS COUNTY, KY	5	1	\$34,514.00	0.00%	99.99%
MONTGOMERY COUNTY, NY	6	2	\$34,285.00	0.00%	99.99%
DAVIDSON COUNTY, TN	7	5	\$33,246.46	0.00%	99.99%
DOUGLAS COUNTY, NV	2	1	\$32,291.00	0.00%	99.99%
NOLAN COUNTY, TX	8	1	\$31,846.58	0.00%	99.99%
KNOX COUNTY, TN	9	4	\$30,223.50	0.00%	99.99%
OKLAHOMA COUNTY, OK	9	3	\$30,129.95	0.00%	99.99%
BALTIMORE COUNTY, MD	6	4	\$29,952.79	0.00%	99.99%
SARPY COUNTY, NE	3	2	\$29,625.00	0.00%	99.99%
CHAMPAIGN COUNTY, OH	1	1	\$27,518.08	0.00%	99.99%
LATAH COUNTY, ID	3	1	\$27,170.00	0.00%	99.99%
DOUGLAS COUNTY, CO	2	2	\$27,019.00	0.00%	99.99%
GREENE COUNTY, OH	3	1	\$25,141.98	0.00%	99.99%
PHELPS COUNTY, MO	1	1	\$25,000.00	0.00%	99.99%
SEMINOLE COUNTY, FL	2	2	\$24,996.00	0.00%	99.99%
KERN COUNTY, CA	2	2	\$24,995.00	0.00%	99.99%
FORT BEND COUNTY, TX	4	2	\$24,689.25	0.00%	99.99%
WHATCOM COUNTY, WA	2	2	\$23,894.39	0.00%	100.00%
TOLLAND COUNTY, CT	5	3	\$23,611.00	0.00%	100.00%
MUSCATINE COUNTY, IA	5	1	\$23,080.00	0.00%	100.00%
LAFAYETTE COUNTY, LA	2	1	\$22,814.00	0.00%	100.00%
CHARLOTTE COUNTY, FL	1	1	\$22,750.00	0.00%	100.00%
UNION COUNTY, NC	2	1	\$22,702.00	0.00%	100.00%
NEWPORT COUNTY, RI	20	2	\$21,881.44	0.00%	100.00%
ALCORN COUNTY, MS	2	1	\$21,740.00	0.00%	100.00%
CRITTENDEN COUNTY, AR	4	1	\$21,371.00	0.00%	100.00%
HARFORD COUNTY, MD	9	3	\$20,089.30	0.00%	100.00%
COCONINO COUNTY, AZ	1	1	\$20,000.00	0.00%	100.00%
WILLIAMSON COUNTY, TX	3	3	\$19,608.86	0.00%	100.00%
WINDHAM COUNTY, VT	1	1	\$19,500.00	0.00%	100.00%
BENTON COUNTY, OR	4	3	\$19,213.00	0.00%	100.00%
WILKES COUNTY, GA	4	1	\$18,622.00	0.00%	100.00%
WASHOE COUNTY, NV	8	3	\$18,511.11	0.00%	100.00%
PENDER COUNTY, NC	1	1	\$18,500.00	0.00%	100.00%
WARREN COUNTY, OH	2	2	\$18,244.96	0.00%	100.00%
BROWN COUNTY, WI	12	1	\$17,904.36	0.00%	100.00%

APPENDIX A: DETAILED MARKET AREA ANALYSES

COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
ADAMS COUNTY, PA	2	1	\$17,748.00	0.00%	100.00%
DESCHUTES COUNTY, OR	3	2	\$16,966.48	0.00%	100.00%
KANAWHA COUNTY, WV	1	1	\$16,247.60	0.00%	100.00%
SMITH COUNTY, TX	4	2	\$16,172.00	0.00%	100.00%
LIVINGSTON COUNTY, LA	4	2	\$16,000.00	0.00%	100.00%
ORLEANS COUNTY, NY	1	1	\$15,300.00	0.00%	100.00%
JEFFERSON COUNTY, LA	1	1	\$14,580.00	0.00%	100.00%
SUMMIT COUNTY, UT	1	1	\$14,500.00	0.00%	100.00%
MCHENRY COUNTY, IL	3	3	\$13,363.96	0.00%	100.00%
GIBSON COUNTY, TN	5	2	\$13,130.52	0.00%	100.00%
WAYNE COUNTY, OH	1	1	\$12,800.00	0.00%	100.00%
LEE COUNTY, FL	2	2	\$12,599.00	0.00%	100.00%
CHEMUNG COUNTY, NY	1	1	\$11,400.00	0.00%	100.00%
WRIGHT COUNTY, MN	1	1	\$11,240.00	0.00%	100.00%
DUVAL COUNTY, FL	4	3	\$11,067.99	0.00%	100.00%
BENTON COUNTY, MN	2	1	\$10,726.11	0.00%	100.00%
SHEBOYGAN COUNTY, WI	2	1	\$10,717.80	0.00%	100.00%
RAMSEY COUNTY, MN	5	3	\$10,559.38	0.00%	100.00%
LAUDERDALE COUNTY, MS	1	1	\$10,500.00	0.00%	100.00%
POWESHIEK COUNTY, IA	3	1	\$10,096.51	0.00%	100.00%
BRAZOS COUNTY, TX	2	1	\$10,062.00	0.00%	100.00%
POPE COUNTY, MN	3	1	\$9,964.00	0.00%	100.00%
HENDERSON COUNTY, KY	1	1	\$9,750.00	0.00%	100.00%
SAINT LUCIE COUNTY, FL	2	1	\$9,744.00	0.00%	100.00%
TULSA COUNTY, OK	1	1	\$9,470.00	0.00%	100.00%
BREVARD COUNTY, FL	5	2	\$9,292.13	0.00%	100.00%
MORGAN COUNTY, IL	1	1	\$9,240.00	0.00%	100.00%
ANOKA COUNTY, MN	1	1	\$8,967.81	0.00%	100.00%
FORSYTH COUNTY, NC	2	1	\$8,875.73	0.00%	100.00%
LANCASTER COUNTY, PA	3	3	\$8,757.10	0.00%	100.00%
CUMBERLAND COUNTY, PA	7	1	\$8,508.75	0.00%	100.00%
DURHAM COUNTY, NC	8	4	\$7,967.00	0.00%	100.00%
ESSEX COUNTY, NY	3	1	\$7,653.00	0.00%	100.00%
ALLEN COUNTY, IN	2	2	\$7,622.06	0.00%	100.00%
HINDS COUNTY, MS	8	2	\$7,600.42	0.00%	100.00%
PORTAGE COUNTY, OH	4	1	\$7,407.27	0.00%	100.00%
EL DORADO COUNTY, CA	4	1	\$7,000.00	0.00%	100.00%
NEWPORT NEWS CITY COUNTY, VA	2	1	\$6,935.50	0.00%	100.00%
DAVIS COUNTY, UT	1	1	\$5,988.00	0.00%	100.00%
SAINT LAWRENCE COUNTY, NY	8	3	\$5,760.89	0.00%	100.00%
CHAMPAIGN COUNTY, IL	2	2	\$5,755.45	0.00%	100.00%
NEVADA COUNTY, CA	4	2	\$5,715.14	0.00%	100.00%
TALBOT COUNTY, MD	3	2	\$5,708.00	0.00%	100.00%
MUSKEGON COUNTY, MI	1	1	\$5,697.50	0.00%	100.00%
ROCK ISLAND COUNTY, IL	1	1	\$5,641.84	0.00%	100.00%
ALAMANCE COUNTY, NC	1	1	\$5,500.00	0.00%	100.00%
STEARNS COUNTY, MN	1	1	\$5,344.94	0.00%	100.00%
POLK COUNTY, IA	1	1	\$5,239.00	0.00%	100.00%
ERIE COUNTY, PA	2	2	\$5,217.00	0.00%	100.00%
BARNSTABLE COUNTY, MA	3	2	\$5,116.00	0.00%	100.00%
CHEROKEE COUNTY, GA	1	1	\$5,100.00	0.00%	100.00%
DUBUQUE COUNTY, IA	2	1	\$5,100.00	0.00%	100.00%
ANDROSCOGGIN COUNTY, ME	2	1	\$5,075.00	0.00%	100.00%
GLYNN COUNTY, GA	1	1	\$5,068.00	0.00%	100.00%
CHARLESTON COUNTY, SC	3	1	\$5,035.00	0.00%	100.00%
BOONE COUNTY, IN	1	1	\$5,000.00	0.00%	100.00%
NAPA COUNTY, CA	1	1	\$5,000.00	0.00%	100.00%
YORK COUNTY, ME	1	1	\$4,997.50	0.00%	100.00%
ROCKWALL COUNTY, TX	1	1	\$4,990.00	0.00%	100.00%

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COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
MORGAN COUNTY, AL	1	1	\$4,963.00	0.00%	100.00%
WAYNE COUNTY, IN	2	1	\$4,944.00	0.00%	100.00%
GRAVES COUNTY, KY	8	1	\$4,929.26	0.00%	100.00%
MONROE COUNTY, IN	4	2	\$4,904.50	0.00%	100.00%
LIVINGSTON COUNTY, MI	2	1	\$4,870.00	0.00%	100.00%
HAMILTON COUNTY, TN	1	1	\$4,867.00	0.00%	100.00%
NEW HANOVER COUNTY, NC	1	1	\$4,859.31	0.00%	100.00%
BULLOCH COUNTY, GA	1	1	\$4,849.43	0.00%	100.00%
KENT COUNTY, RI	1	1	\$4,800.00	0.00%	100.00%
JEFFERSON COUNTY, MO	1	1	\$4,733.00	0.00%	100.00%
FLAGLER COUNTY, FL	2	2	\$4,344.64	0.00%	100.00%
CUMBERLAND COUNTY, NJ	3	3	\$4,308.70	0.00%	100.00%
FAYETTE COUNTY, GA	1	1	\$4,303.00	0.00%	100.00%
FRESNO COUNTY, CA	2	1	\$4,277.07	0.00%	100.00%
MOBILE COUNTY, AL	4	1	\$4,230.62	0.00%	100.00%
ORANGE COUNTY, TX	1	1	\$4,125.00	0.00%	100.00%
FAIRFIELD COUNTY, SC	1	1	\$3,800.00	0.00%	100.00%
PIKE COUNTY, PA	1	1	\$3,800.00	0.00%	100.00%
MIAMI COUNTY, OH	4	2	\$3,686.93	0.00%	100.00%
LANCASTER COUNTY, NE	1	1	\$3,510.00	0.00%	100.00%
JACKSON COUNTY, OR	1	1	\$3,500.00	0.00%	100.00%
JOHNSON COUNTY, IA	1	1	\$3,500.00	0.00%	100.00%
LOUDON COUNTY, TN	1	1	\$3,500.00	0.00%	100.00%
LEE COUNTY, AL	1	1	\$3,376.46	0.00%	100.00%
WARREN COUNTY, VA	3	1	\$3,309.89	0.00%	100.00%
EAU CLAIRE COUNTY, WI	4	2	\$3,246.00	0.00%	100.00%
SPOKANE COUNTY, WA	3	1	\$3,119.20	0.00%	100.00%
GRANVILLE COUNTY, NC	1	1	\$3,000.00	0.00%	100.00%
JEFFERSON COUNTY, WI	1	1	\$2,994.12	0.00%	100.00%
SAINT CROIX COUNTY, WI	1	1	\$2,967.00	0.00%	100.00%
BERNALILLO COUNTY, NM	6	5	\$2,938.70	0.00%	100.00%
COLE COUNTY, MO	1	1	\$2,890.00	0.00%	100.00%
WILSON COUNTY, TX	7	1	\$2,878.00	0.00%	100.00%
SOCORRO COUNTY, NM	1	1	\$2,732.00	0.00%	100.00%
SCHOHARIE COUNTY, NY	1	1	\$2,265.00	0.00%	100.00%
JEFFERSON COUNTY, PA	7	2	\$2,230.00	0.00%	100.00%
SAN LUIS OBISPO COUNTY, CA	4	2	\$2,180.00	0.00%	100.00%
BOONE COUNTY, MO	1	1	\$2,000.00	0.00%	100.00%
RUTHERFORD COUNTY, TN	1	1	\$1,986.47	0.00%	100.00%
CARROLL COUNTY, NH	2	2	\$1,871.00	0.00%	100.00%
FAYETTE COUNTY, TX	2	1	\$1,799.00	0.00%	100.00%
BELL COUNTY, TX	2	1	\$1,678.55	0.00%	100.00%
BERRIEN COUNTY, MI	2	1	\$1,620.00	0.00%	100.00%
HAAKON COUNTY, SD	1	1	\$1,605.60	0.00%	100.00%
CHEYENNE COUNTY, NE	2	1	\$1,596.91	0.00%	100.00%
CHESHIRE COUNTY, NH	1	1	\$1,582.88	0.00%	100.00%
VOLUSIA COUNTY, FL	1	1	\$1,500.00	0.00%	100.00%
MORGAN COUNTY, UT	1	1	\$1,454.67	0.00%	100.00%
SHELBY COUNTY, AL	2	2	\$1,445.00	0.00%	100.00%
PORTAGE COUNTY, WI	1	1	\$1,440.00	0.00%	100.00%
OTSEGO COUNTY, NY	5	1	\$1,400.00	0.00%	100.00%
FRANKLIN COUNTY, NC	1	1	\$1,236.00	0.00%	100.00%
LEE COUNTY, NC	1	1	\$1,200.00	0.00%	100.00%
MANASSAS CITY COUNTY, VA	1	1	\$1,200.00	0.00%	100.00%
SAINT TAMMANY COUNTY, LA	3	1	\$1,142.60	0.00%	100.00%
RICHMOND COUNTY, GA	1	1	\$1,088.00	0.00%	100.00%
WARREN COUNTY, TN	1	1	\$1,061.50	0.00%	100.00%
SAGADAHOC COUNTY, ME	1	1	\$1,059.50	0.00%	100.00%
ALACHUA COUNTY, FL	3	1	\$1,050.00	0.00%	100.00%

APPENDIX A: DETAILED MARKET AREA ANALYSES

COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
WHITLEY COUNTY, IN	1	1	\$1,043.58	0.00%	100.00%
ANDERSON COUNTY, SC	1	1	\$887.50	0.00%	100.00%
LYNCHBURG CITY COUNTY, VA	1	1	\$883.72	0.00%	100.00%
BENNINGTON COUNTY, VT	1	1	\$863.00	0.00%	100.00%
HANCOCK COUNTY, ME	1	1	\$850.00	0.00%	100.00%
PAYNE COUNTY, OK	1	1	\$740.00	0.00%	100.00%
CHITTENDEN COUNTY, VT	2	2	\$724.75	0.00%	100.00%
HAMILTON COUNTY, IN	1	1	\$708.41	0.00%	100.00%
MANATEE COUNTY, FL	1	1	\$700.00	0.00%	100.00%
RENSSELAER COUNTY, NY	1	1	\$675.00	0.00%	100.00%
YOLO COUNTY, CA	1	1	\$568.50	0.00%	100.00%
MARATHON COUNTY, WI	1	1	\$557.40	0.00%	100.00%
TIPPECANOE COUNTY, IN	1	1	\$512.00	0.00%	100.00%
RICE COUNTY, MN	1	1	\$480.00	0.00%	100.00%
JOSEPHINE COUNTY, OR	2	1	\$470.00	0.00%	100.00%
PLUMAS COUNTY, CA	1	1	\$469.50	0.00%	100.00%
NEZ PERCE COUNTY, ID	1	1	\$444.97	0.00%	100.00%
MESA COUNTY, CO	1	1	\$420.00	0.00%	100.00%
WASHINGTON COUNTY, MD	1	1	\$385.00	0.00%	100.00%
ATHENS COUNTY, OH	1	1	\$350.00	0.00%	100.00%
MARION COUNTY, OR	1	1	\$342.00	0.00%	100.00%
RICHLAND COUNTY, SC	1	1	\$300.00	0.00%	100.00%
MERCER COUNTY, PA	1	1	\$285.00	0.00%	100.00%
HERKIMER COUNTY, NY	1	1	\$242.51	0.00%	100.00%
JOHNSTON COUNTY, NC	1	1	\$240.00	0.00%	100.00%
PUEBLO COUNTY, CO	3	1	\$169.44	0.00%	100.00%
DAKOTA COUNTY, MN	1	1	\$165.09	0.00%	100.00%
TUSCALOOSA COUNTY, AL	1	1	\$164.90	0.00%	100.00%
SALEM COUNTY, NJ	1	1	\$77.25	0.00%	100.00%
CRAWFORD COUNTY, PA	1	1	\$59.00	0.00%	100.00%
GALLATIN COUNTY, MT	1	1	\$54.37	0.00%	100.00%
PENNINGTON COUNTY, MN	1	1	\$43.34	0.00%	100.00%
LEBANON COUNTY, PA	1	1	\$11.36	0.00%	100.00%
ARCHULETA COUNTY, CO	1	1	\$-	0.00%	100.00%
CHESTERFIELD COUNTY, VA	1	1	\$-	0.00%	100.00%
GALVESTON COUNTY, TX	1	1	\$-	0.00%	100.00%
MACOMB COUNTY, MI	1	1	\$-	0.00%	100.00%
TAYLOR COUNTY, FL	1	1	\$-	0.00%	100.00%
THOMAS COUNTY, GA	1	1	\$-	0.00%	100.00%
TUOLUMNE COUNTY, CA	1	1	\$-	0.00%	100.00%
WARREN COUNTY, KY	1	1	\$-	0.00%	100.00%
WASHINGTON COUNTY, OH	1	1	\$-	0.00%	100.00%

Source: MGT developed a Master Prime File based on dollars expended by the City of New York between July 1, 2006 and June 30, 2015.

¹ Cumulative percent of total dollars for location of firms (market area).

Location of firms listed to the dotted line represent counties and states in the City's five boroughs, to the solid line represent counties and states considered to be eligible for Minority and Women-owned Business Enterprise (M/WBE) Certification, and to the double line represent counties and states in the New York-Newark-Jersey City, NY-NJ-PA Metropolitan Statistical Area (MSA).

TABLE A-6: MARKET AREA ANALYSIS, PRIME LEVEL DISTRIBUTION OF DOLLARS BY LOCATION OF FIRM (COUNTY, STATE), GOODS OR COMMODITIES

COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
NEW YORK COUNTY, NY	32334	1274	\$1,398,811,391.76	14.50%	14.50%
QUEENS COUNTY, NY	13722	959	\$924,568,321.64	9.59%	24.09%
BRONX COUNTY, NY	3881	373	\$706,826,841.30	7.33%	31.42%
KINGS COUNTY, NY	17438	858	\$640,163,281.51	6.64%	38.06%
RICHMOND COUNTY, NY	1706	179	\$51,647,718.07	0.54%	38.59%
WESTCHESTER COUNTY, NY	2865	283	\$594,678,607.37	6.17%	44.76%
NASSAU COUNTY, NY	7297	634	\$330,772,475.52	3.43%	48.19%
SUFFOLK COUNTY, NY	6095	482	\$255,310,598.15	2.65%	50.83%
HUDSON COUNTY, NJ	1178	80	\$138,468,455.24	1.44%	52.27%
ROCKLAND COUNTY, NY	765	71	\$122,406,164.27	1.27%	53.54%
BERGEN COUNTY, NJ	4019	261	\$110,237,130.65	1.14%	54.68%
PASSAIC COUNTY, NJ	996	80	\$23,186,150.32	0.24%	54.92%
PUTNAM COUNTY, NY	108	36	\$6,597,285.23	0.07%	54.99%
MIDDLESEX COUNTY, NJ	2657	136	\$273,329,276.68	2.83%	57.82%
MORRIS COUNTY, NJ	1211	98	\$81,266,335.22	0.84%	58.67%
ESSEX COUNTY, NJ	774	99	\$59,057,040.34	0.61%	59.28%
MONMOUTH COUNTY, NJ	423	89	\$37,258,196.51	0.39%	59.67%
SOMERSET COUNTY, NJ	389	57	\$32,113,686.60	0.33%	60.00%
ORANGE COUNTY, NY	351	74	\$27,598,814.50	0.29%	60.29%
UNION COUNTY, NJ	1639	96	\$23,173,781.64	0.24%	60.53%
DUTCHESS COUNTY, NY	105	41	\$2,883,000.31	0.03%	60.56%
OCEAN COUNTY, NJ	131	28	\$1,828,855.38	0.02%	60.57%
HUNTERDON COUNTY, NJ	79	19	\$1,732,140.64	0.02%	60.59%
SUSSEX COUNTY, NJ	43	17	\$500,155.52	0.01%	60.60%
LEHIGH COUNTY, PA	136	9	\$729,227,507.71	7.56%	68.16%
FAIRFAX COUNTY, VA	234	30	\$552,793,785.93	5.73%	73.89%
DALLAS COUNTY, TX	324	76	\$313,186,909.76	3.25%	77.14%
SAN BERNARDINO COUNTY, CA	81	17	\$144,809,093.35	1.50%	78.64%
DAVIDSON COUNTY, TN	19	8	\$128,068,368.13	1.33%	79.97%
COOK COUNTY, IL	3224	220	\$118,394,649.38	1.23%	81.19%
LIVINGSTON COUNTY, LA	24	1	\$107,275,013.50	1.11%	82.31%
ORANGE COUNTY, FL	39	14	\$91,070,664.05	0.94%	83.25%
JACKSON COUNTY, MO	25	9	\$72,892,544.46	0.76%	84.01%
CARBON COUNTY, PA	16	3	\$59,629,395.71	0.62%	84.62%
TARRANT COUNTY, TX	52	21	\$58,309,976.39	0.60%	85.23%
DUPAGE COUNTY, IL	357	50	\$54,915,629.93	0.57%	85.80%
MANATEE COUNTY, FL	17	4	\$45,853,816.35	0.48%	86.27%
LIBERTY COUNTY, GA	11	1	\$45,629,909.50	0.47%	86.75%
BROWARD COUNTY, FL	167	43	\$43,661,142.91	0.45%	87.20%
CHESTER COUNTY, PA	92	31	\$43,637,106.03	0.45%	87.65%
LACKAWANNA COUNTY, PA	37	6	\$40,249,889.54	0.42%	88.07%
KALAMAZOO COUNTY, MI	15	2	\$35,631,998.98	0.37%	88.44%
SUFFOLK COUNTY, MA	82	28	\$35,529,662.33	0.37%	88.81%
MILWAUKEE COUNTY, WI	105	21	\$33,840,765.33	0.35%	89.16%
ALLEGHENY COUNTY, PA	375	36	\$33,238,516.82	0.34%	89.50%
ERIE COUNTY, NY	346	59	\$32,502,060.38	0.34%	89.84%
MONROE COUNTY, NY	861	53	\$30,448,314.03	0.32%	90.16%
FAIRFIELD COUNTY, CT	192	56	\$27,296,983.42	0.28%	90.44%
ARAPAHOE COUNTY, CO	102	23	\$25,225,549.60	0.26%	90.70%
PHILADELPHIA COUNTY, PA	209	39	\$24,035,924.16	0.25%	90.95%
MIDDLESEX COUNTY, MA	254	69	\$22,752,143.80	0.24%	91.19%
LUZERNE COUNTY, PA	50	8	\$22,520,502.55	0.23%	91.42%
CASS COUNTY, ND	21	2	\$21,654,080.68	0.22%	91.64%
KING COUNTY, WA	200	53	\$19,101,851.47	0.20%	91.84%
FULTON COUNTY, GA	505	57	\$18,882,140.98	0.20%	92.04%

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COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
BOULDER COUNTY, CO	98	17	\$18,550,624.65	0.19%	92.23%
GREENE COUNTY, NY	93	35	\$17,888,037.30	0.19%	92.42%
DUVAL COUNTY, FL	125	13	\$16,924,655.76	0.18%	92.59%
MONTGOMERY COUNTY, PA	231	49	\$16,471,288.55	0.17%	92.76%
DELAWARE COUNTY, NY	71	55	\$16,310,084.41	0.17%	92.93%
LOS ANGELES COUNTY, CA	631	142	\$15,878,727.22	0.16%	93.10%
BRISTOL COUNTY, MA	81	19	\$15,822,829.11	0.16%	93.26%
JEFFERSON COUNTY, MO	14	3	\$15,753,613.54	0.16%	93.42%
DOUGLAS COUNTY, NE	108	11	\$15,374,798.52	0.16%	93.58%
RICHMOND CITY COUNTY, VA	209	15	\$15,068,179.72	0.16%	93.74%
HARRIS COUNTY, TX	129	46	\$14,727,666.61	0.15%	93.89%
SALT LAKE COUNTY, UT	144	23	\$14,410,675.03	0.15%	94.04%
CANADA	152	47	\$13,614,316.90	0.14%	94.18%
NEW HAVEN COUNTY, CT	326	63	\$13,410,005.24	0.14%	94.32%
FREDERICK COUNTY, MD	30	11	\$13,288,431.92	0.14%	94.46%
GUILFORD COUNTY, NC	105	8	\$13,214,270.91	0.14%	94.60%
NEZ PERCE COUNTY, ID	52	1	\$12,370,975.49	0.13%	94.72%
LOUDOUN COUNTY, VA	166	33	\$11,794,968.89	0.12%	94.85%
VIRGINIA BEACH CITY COUNTY, VA	119	11	\$11,576,334.26	0.12%	94.97%
YORK COUNTY, PA	139	13	\$11,132,113.58	0.12%	95.08%
BONNEVILLE COUNTY, ID	3	1	\$11,045,986.00	0.11%	95.20%
WALTON COUNTY, GA	8	4	\$10,607,882.84	0.11%	95.31%
WORCESTER COUNTY, MA	169	15	\$10,409,122.20	0.11%	95.41%
MARION COUNTY, FL	13	3	\$10,231,606.63	0.11%	95.52%
ULSTER COUNTY, NY	233	71	\$9,736,594.60	0.10%	95.62%
WAYNE COUNTY, MI	94	22	\$9,677,227.43	0.10%	95.72%
KITSAP COUNTY, WA	33	3	\$9,529,773.46	0.10%	95.82%
MAHONING COUNTY, OH	11	6	\$9,270,105.08	0.10%	95.92%
AUSTIN COUNTY, TX	1	1	\$8,562,485.00	0.09%	96.00%
ORANGE COUNTY, CA	273	81	\$8,546,501.98	0.09%	96.09%
BALTIMORE CITY COUNTY, MD	163	26	\$8,280,254.91	0.09%	96.18%
SAN MATEO COUNTY, CA	74	20	\$8,177,891.91	0.08%	96.26%
MECKLENBURG COUNTY, NC	242	23	\$8,133,153.95	0.08%	96.35%
SARATOGA COUNTY, NY	39	13	\$7,915,619.92	0.08%	96.43%
RACINE COUNTY, WI	40	3	\$7,363,735.33	0.08%	96.51%
DOUGLAS COUNTY, KS	9	1	\$7,124,817.54	0.07%	96.58%
LEON COUNTY, FL	11	4	\$7,012,135.01	0.07%	96.65%
BROOME COUNTY, NY	134	11	\$6,829,861.74	0.07%	96.72%
ALBANY COUNTY, NY	337	47	\$6,745,907.76	0.07%	96.79%
STARK COUNTY, OH	54	15	\$6,702,046.15	0.07%	96.86%
CANYON COUNTY, ID	4	2	\$6,232,673.56	0.06%	96.93%
TALBOT COUNTY, MD	27	3	\$5,962,815.30	0.06%	96.99%
SAN DIEGO COUNTY, CA	276	72	\$5,936,086.93	0.06%	97.05%
ANNE ARUNDEL COUNTY, MD	50	12	\$5,798,884.36	0.06%	97.11%
BURLINGTON COUNTY, NJ	203	37	\$5,782,223.81	0.06%	97.17%
JEFFERSON COUNTY, NY	32	3	\$5,402,902.61	0.06%	97.23%
QUEEN ANNES COUNTY, MD	21	4	\$5,396,364.24	0.06%	97.28%
PALM BEACH COUNTY, FL	170	30	\$5,314,924.40	0.06%	97.34%
MARICOPA COUNTY, AZ	273	51	\$5,278,534.56	0.05%	97.39%
SULLIVAN COUNTY, NY	87	28	\$5,170,864.99	0.05%	97.45%
MACON COUNTY, IL	51	4	\$5,128,848.63	0.05%	97.50%
HOUSTON COUNTY, AL	19	3	\$5,072,057.71	0.05%	97.55%
BARNSTABLE COUNTY, MA	11	5	\$5,024,595.50	0.05%	97.61%
HENNEPIN COUNTY, MN	298	75	\$4,906,066.17	0.05%	97.66%
SANTA CLARA COUNTY, CA	117	39	\$4,873,619.04	0.05%	97.71%
MIAMI-DADE COUNTY, FL	110	33	\$4,783,452.70	0.05%	97.76%
PLYMOUTH COUNTY, MA	110	10	\$4,755,698.05	0.05%	97.81%
MERCER COUNTY, NJ	117	24	\$4,745,708.30	0.05%	97.85%
LIVINGSTON COUNTY, NY	1	1	\$4,692,826.36	0.05%	97.90%

APPENDIX A: DETAILED MARKET AREA ANALYSES

COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
LEE COUNTY, IL	3	1	\$4,674,911.53	0.05%	97.95%
CUYAHOGA COUNTY, OH	131	30	\$4,616,181.57	0.05%	98.00%
ANTRIM COUNTY, MI	6	2	\$4,561,061.90	0.05%	98.05%
ALAMEDA COUNTY, CA	106	31	\$4,433,048.15	0.05%	98.09%
SANTA CRUZ COUNTY, CA	84	5	\$4,331,132.26	0.04%	98.14%
GLOUCESTER COUNTY, NJ	153	10	\$4,047,537.12	0.04%	98.18%
LAKE COUNTY, IL	172	27	\$3,978,279.62	0.04%	98.22%
CHARLESTON COUNTY, SC	59	8	\$3,772,230.10	0.04%	98.26%
HAMILTON COUNTY, OH	119	23	\$3,685,420.00	0.04%	98.30%
CLARK COUNTY, NV	20	10	\$3,444,224.04	0.04%	98.33%
PEORIA COUNTY, IL	2	1	\$3,234,939.34	0.03%	98.37%
ONEIDA COUNTY, NY	65	11	\$3,161,168.83	0.03%	98.40%
BUCKS COUNTY, PA	123	31	\$3,138,579.18	0.03%	98.43%
ONONDAGA COUNTY, NY	155	35	\$3,075,446.27	0.03%	98.46%
SCHENECTADY COUNTY, NY	10	9	\$2,797,717.80	0.03%	98.49%
MONTGOMERY COUNTY, MD	95	28	\$2,662,472.99	0.03%	98.52%
GREENVILLE COUNTY, SC	19	6	\$2,629,131.19	0.03%	98.55%
ORANGE COUNTY, NC	16	7	\$2,601,410.94	0.03%	98.58%
FAYETTE COUNTY, PA	25	2	\$2,477,872.31	0.03%	98.60%
CAMDEN COUNTY, NJ	91	21	\$2,424,748.67	0.03%	98.63%
MEDINA COUNTY, OH	3	3	\$2,164,828.04	0.02%	98.65%
TALLAPOOSA COUNTY, AL	29	1	\$2,146,030.30	0.02%	98.67%
SUMNER COUNTY, TN	2	2	\$2,141,525.24	0.02%	98.69%
HARTFORD COUNTY, CT	124	34	\$2,127,603.64	0.02%	98.72%
BEXAR COUNTY, TX	40	15	\$1,965,316.34	0.02%	98.74%
RENSSELAER COUNTY, NY	44	12	\$1,956,710.77	0.02%	98.76%
HIGHLANDS COUNTY, FL	24	2	\$1,941,868.54	0.02%	98.78%
MARION COUNTY, IN	67	15	\$1,833,356.93	0.02%	98.80%
HOWARD COUNTY, MD	64	8	\$1,824,907.25	0.02%	98.81%
JEFFERSON COUNTY, CO	67	12	\$1,789,827.52	0.02%	98.83%
COLLIN COUNTY, TX	26	7	\$1,775,923.14	0.02%	98.85%
CLACKAMAS COUNTY, OR	49	19	\$1,691,698.93	0.02%	98.87%
SHELBY COUNTY, TN	25	8	\$1,655,052.08	0.02%	98.89%
JOHNSON COUNTY, KS	164	22	\$1,647,877.59	0.02%	98.90%
BERKSHIRE COUNTY, MA	42	5	\$1,641,672.39	0.02%	98.92%
WILL COUNTY, IL	53	6	\$1,626,251.45	0.02%	98.94%
GWINNETT COUNTY, GA	32	22	\$1,624,961.67	0.02%	98.95%
OTSEGO COUNTY, NY	8	8	\$1,610,977.59	0.02%	98.97%
NEW LONDON COUNTY, CT	283	9	\$1,479,463.80	0.02%	98.99%
NEW HANOVER COUNTY, NC	5	4	\$1,454,117.00	0.02%	99.00%
WAUKESHA COUNTY, WI	18	10	\$1,417,405.00	0.01%	99.02%
CUMBERLAND COUNTY, NJ	69	5	\$1,407,295.93	0.01%	99.03%
HARRISONBURG CITY COUNTY, VA	22	3	\$1,356,033.39	0.01%	99.04%
WINNEBAGO COUNTY, WI	74	6	\$1,342,985.28	0.01%	99.06%
DANE COUNTY, WI	245	18	\$1,299,106.62	0.01%	99.07%
WAKE COUNTY, NC	140	20	\$1,285,214.56	0.01%	99.08%
PRINCE GEORGES COUNTY, MD	44	13	\$1,252,718.38	0.01%	99.10%
SONOMA COUNTY, CA	31	10	\$1,207,712.21	0.01%	99.11%
HAMPDEN COUNTY, MA	73	17	\$1,171,235.95	0.01%	99.12%
FRANKLIN COUNTY, OH	39	20	\$1,148,013.49	0.01%	99.13%
NEWPORT COUNTY, RI	35	4	\$1,114,784.14	0.01%	99.15%
LA PLATA COUNTY, CO	26	3	\$1,113,344.76	0.01%	99.16%
WARREN COUNTY, NJ	40	10	\$1,051,592.90	0.01%	99.17%
NELSON COUNTY, VA	37	1	\$1,050,584.94	0.01%	99.18%
TOMPKINS COUNTY, NY	41	5	\$1,001,350.97	0.01%	99.19%
CLATSOP COUNTY, OR	1	1	\$994,880.76	0.01%	99.20%
ORLEANS COUNTY, LA	18	1	\$967,916.75	0.01%	99.21%
PROVIDENCE COUNTY, RI	57	18	\$961,146.82	0.01%	99.22%
ONTARIO COUNTY, NY	36	7	\$950,856.44	0.01%	99.23%

APPENDIX A: DETAILED MARKET AREA ANALYSES

COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
SUMMIT COUNTY, OH	61	9	\$950,519.48	0.01%	99.24%
LANCASTER COUNTY, PA	29	7	\$942,292.04	0.01%	99.25%
MONTGOMERY COUNTY, NY	24	4	\$931,372.59	0.01%	99.26%
SAN FRANCISCO COUNTY, CA	65	23	\$926,538.22	0.01%	99.27%
HILLSBOROUGH COUNTY, NH	15	10	\$924,267.49	0.01%	99.28%
LANE COUNTY, OR	39	7	\$909,705.78	0.01%	99.29%
CHESAPEAKE CITY COUNTY, VA	15	8	\$891,302.89	0.01%	99.30%
ANDERSON COUNTY, TN	17	3	\$886,405.00	0.01%	99.31%
VENTURA COUNTY, CA	24	11	\$883,431.57	0.01%	99.32%
SAINT LOUIS COUNTY, MO	57	22	\$876,843.86	0.01%	99.32%
NORFOLK COUNTY, MA	39	17	\$868,257.48	0.01%	99.33%
VANDERBURGH COUNTY, IN	12	4	\$798,577.75	0.01%	99.34%
SCHOHARIE COUNTY, NY	22	5	\$795,449.02	0.01%	99.35%
YORK COUNTY, ME	21	4	\$778,282.68	0.01%	99.36%
GRAFTON COUNTY, NH	13	2	\$774,671.18	0.01%	99.37%
SAINT LOUIS CITY COUNTY, MO	141	17	\$767,926.51	0.01%	99.37%
BREVARD COUNTY, FL	20	10	\$765,165.58	0.01%	99.38%
LITCHFIELD COUNTY, CT	64	13	\$763,253.93	0.01%	99.39%
ANDROSCOGGIN COUNTY, ME	7	3	\$748,512.50	0.01%	99.40%
ATLANTIC COUNTY, NJ	45	5	\$742,430.33	0.01%	99.41%
DARKE COUNTY, OH	95	3	\$726,573.75	0.01%	99.41%
KANE COUNTY, IL	47	13	\$712,128.05	0.01%	99.42%
MADISON COUNTY, NY	11	3	\$692,460.36	0.01%	99.43%
SEMINOLE COUNTY, FL	29	9	\$684,998.88	0.01%	99.43%
HILLSBOROUGH COUNTY, FL	97	25	\$683,959.51	0.01%	99.44%
BERKS COUNTY, PA	42	10	\$682,008.23	0.01%	99.45%
SANTA BARBARA COUNTY, CA	49	14	\$672,920.27	0.01%	99.46%
FREDERICKSBURG CITY COUNTY, VA	38	3	\$671,869.20	0.01%	99.46%
WILLIAMSON COUNTY, TN	8	5	\$664,282.29	0.01%	99.47%
SACRAMENTO COUNTY, CA	40	14	\$646,841.59	0.01%	99.48%
CONTRA COSTA COUNTY, CA	44	9	\$595,670.44	0.01%	99.48%
KENT COUNTY, DE	1	1	\$594,733.12	0.01%	99.49%
RIPLEY COUNTY, IN	6	1	\$589,592.94	0.01%	99.49%
VOLUSIA COUNTY, FL	11	6	\$579,918.78	0.01%	99.50%
NEW CASTLE COUNTY, DE	37	12	\$579,836.18	0.01%	99.51%
RIVERSIDE COUNTY, CA	61	20	\$578,958.82	0.01%	99.51%
OAKLAND COUNTY, MI	34	17	\$550,366.06	0.01%	99.52%
CALHOUN COUNTY, AL	1	1	\$543,500.00	0.01%	99.52%
WINDHAM COUNTY, CT	13	2	\$539,638.02	0.01%	99.53%
ESSEX COUNTY, MA	74	21	\$530,658.75	0.01%	99.54%
COLUMBIA COUNTY, NY	10	2	\$530,134.00	0.01%	99.54%
FORSYTH COUNTY, GA	33	2	\$523,754.42	0.01%	99.55%
JEFFERSON COUNTY, KY	32	5	\$508,156.33	0.01%	99.55%
SAINT LUCIE COUNTY, FL	17	6	\$506,750.78	0.01%	99.56%
PAYNE COUNTY, OK	9	2	\$499,424.24	0.01%	99.56%
SARASOTA COUNTY, FL	21	8	\$487,078.73	0.01%	99.57%
HINDS COUNTY, MS	151	3	\$483,071.60	0.01%	99.57%
DAVIS COUNTY, UT	9	5	\$477,281.03	0.00%	99.58%
ROCKINGHAM COUNTY, NH	20	9	\$466,834.00	0.00%	99.58%
KNOX COUNTY, TN	25	8	\$463,428.87	0.00%	99.59%
KENT COUNTY, MI	47	7	\$459,635.38	0.00%	99.59%
EAST BATON ROUGE COUNTY, LA	23	3	\$459,214.20	0.00%	99.60%
FULTON COUNTY, NY	5	1	\$453,018.73	0.00%	99.60%
WASHINGTON COUNTY, MN	11	3	\$451,926.64	0.00%	99.61%
CHITTENDEN COUNTY, VT	11	6	\$450,396.55	0.00%	99.61%
KAUFMAN COUNTY, TX	1	1	\$427,592.94	0.00%	99.61%
TRAVIS COUNTY, TX	75	30	\$416,997.94	0.00%	99.62%
BRISTOL CITY COUNTY, VA	3	1	\$414,666.00	0.00%	99.62%
BROWN COUNTY, WI	14	4	\$413,283.58	0.00%	99.63%

APPENDIX A: DETAILED MARKET AREA ANALYSES

COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
WILLIAMSON COUNTY, TX	56	3	\$411,788.54	0.00%	99.63%
SEDGWICK COUNTY, KS	17	9	\$403,272.57	0.00%	99.64%
PIMA COUNTY, AZ	27	7	\$400,423.85	0.00%	99.64%
MORGAN COUNTY, UT	5	1	\$374,707.50	0.00%	99.64%
ANOKA COUNTY, MN	20	4	\$371,143.50	0.00%	99.65%
FRANKLIN COUNTY, NY	3	2	\$359,174.00	0.00%	99.65%
SAINT LAWRENCE COUNTY, NY	5	2	\$354,397.00	0.00%	99.65%
ADAMS COUNTY, PA	13	3	\$352,175.63	0.00%	99.66%
DOUGLAS COUNTY, GA	1	1	\$350,980.00	0.00%	99.66%
PLACER COUNTY, CA	18	4	\$345,993.42	0.00%	99.67%
MIAMI COUNTY, OH	59	2	\$344,431.28	0.00%	99.67%
MONROE COUNTY, PA	25	3	\$339,394.60	0.00%	99.67%
WARREN COUNTY, NY	18	5	\$332,505.86	0.00%	99.68%
IBERIA COUNTY, LA	1	1	\$332,469.81	0.00%	99.68%
ROBERTSON COUNTY, TN	14	1	\$330,871.34	0.00%	99.68%
ERIE COUNTY, PA	16	9	\$330,312.80	0.00%	99.69%
BUTTE COUNTY, CA	16	4	\$329,720.43	0.00%	99.69%
KENT COUNTY, RI	23	6	\$320,096.66	0.00%	99.69%
CHARLES COUNTY, MD	3	3	\$312,161.00	0.00%	99.70%
SPOKANE COUNTY, WA	17	6	\$309,970.23	0.00%	99.70%
WASHINGTON COUNTY, RI	17	5	\$309,150.70	0.00%	99.70%
HARFORD COUNTY, MD	11	4	\$307,175.66	0.00%	99.71%
WAYNE COUNTY, NY	8	4	\$304,890.73	0.00%	99.71%
DELAWARE COUNTY, PA	34	15	\$302,118.72	0.00%	99.71%
CUMBERLAND COUNTY, ME	14	8	\$301,963.29	0.00%	99.72%
PIERCE COUNTY, WA	17	6	\$301,494.64	0.00%	99.72%
INDIAN RIVER COUNTY, FL	24	5	\$297,218.09	0.00%	99.72%
PINELLAS COUNTY, FL	31	15	\$285,528.07	0.00%	99.72%
KENTON COUNTY, KY	3	2	\$284,935.00	0.00%	99.73%
CALHOUN COUNTY, MI	6	1	\$279,988.85	0.00%	99.73%
IREDELL COUNTY, NC	2	2	\$279,024.00	0.00%	99.73%
DAKOTA COUNTY, MN	46	6	\$265,161.62	0.00%	99.74%
MARTIN COUNTY, FL	7	5	\$262,983.00	0.00%	99.74%
FORREST COUNTY, MS	5	1	\$258,975.00	0.00%	99.74%
DEKALB COUNTY, GA	9	5	\$255,148.68	0.00%	99.74%
HARNETT COUNTY, NC	6	1	\$254,337.60	0.00%	99.75%
UTAH COUNTY, UT	29	16	\$251,724.36	0.00%	99.75%
KNOX COUNTY, ME	1	1	\$250,000.00	0.00%	99.75%
SOMERSET COUNTY, PA	5	1	\$250,000.00	0.00%	99.75%
NORTHAMPTON COUNTY, PA	21	10	\$243,242.65	0.00%	99.76%
SALEM CITY COUNTY, VA	5	1	\$240,000.00	0.00%	99.76%
AIKEN COUNTY, SC	66	2	\$239,226.49	0.00%	99.76%
MCMINN COUNTY, TN	1	1	\$238,370.00	0.00%	99.76%
DAVISS COUNTY, KY	32	2	\$236,369.87	0.00%	99.77%
HERKIMER COUNTY, NY	11	4	\$233,348.09	0.00%	99.77%
HENRICO COUNTY, VA	6	2	\$230,395.45	0.00%	99.77%
SNOHOMISH COUNTY, WA	30	12	\$229,512.54	0.00%	99.77%
RICE COUNTY, MN	11	4	\$226,970.40	0.00%	99.78%
GLOUCESTER COUNTY, VA	5	2	\$226,506.85	0.00%	99.78%
WASHTENAW COUNTY, MI	14	6	\$224,975.69	0.00%	99.78%
ELKHART COUNTY, IN	9	5	\$223,459.38	0.00%	99.78%
DUBUQUE COUNTY, IA	6	3	\$219,491.68	0.00%	99.79%
NORFOLK CITY COUNTY, VA	29	7	\$219,264.35	0.00%	99.79%
WARREN COUNTY, OH	12	4	\$218,040.25	0.00%	99.79%
TIOGA COUNTY, NY	3	1	\$215,661.00	0.00%	99.79%
CLINTON COUNTY, NY	16	4	\$210,114.73	0.00%	99.80%
HANOVER COUNTY, VA	2	1	\$206,951.00	0.00%	99.80%
BUTLER COUNTY, PA	15	3	\$205,500.09	0.00%	99.80%
SUSSEX COUNTY, DE	9	3	\$204,051.14	0.00%	99.80%

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COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
MIDDLESEX COUNTY, CT	27	15	\$203,319.83	0.00%	99.80%
GENESEE COUNTY, NY	1	1	\$200,880.00	0.00%	99.81%
CATTARAUGUS COUNTY, NY	2	1	\$200,000.00	0.00%	99.81%
TOLLAND COUNTY, CT	38	3	\$199,098.51	0.00%	99.81%
LEE COUNTY, FL	15	5	\$197,359.39	0.00%	99.81%
LAKE COUNTY, OH	13	6	\$196,257.78	0.00%	99.81%
CHEYENNE COUNTY, NE	46	2	\$193,688.37	0.00%	99.82%
DURHAM COUNTY, NC	16	10	\$193,542.71	0.00%	99.82%
MONTEREY COUNTY, CA	17	5	\$189,558.86	0.00%	99.82%
CHEMUNG COUNTY, NY	15	2	\$188,884.30	0.00%	99.82%
STRAFFORD COUNTY, NH	6	4	\$188,133.50	0.00%	99.82%
MADISON COUNTY, IL	3	1	\$185,934.86	0.00%	99.83%
OTTAWA COUNTY, MI	17	4	\$182,277.74	0.00%	99.83%
EL PASO COUNTY, CO	14	5	\$176,938.89	0.00%	99.83%
MOORE COUNTY, NC	8	3	\$171,866.68	0.00%	99.83%
MARION COUNTY, OR	2	1	\$167,081.00	0.00%	99.83%
RUTHERFORD COUNTY, NC	4	1	\$166,764.90	0.00%	99.83%
POPE COUNTY, MN	9	1	\$163,000.00	0.00%	99.84%
DUBOIS COUNTY, IN	10	4	\$162,312.60	0.00%	99.84%
CRAWFORD COUNTY, IA	4	1	\$161,216.50	0.00%	99.84%
TAYLOR COUNTY, FL	30	2	\$161,150.92	0.00%	99.84%
WASHOE COUNTY, NV	22	2	\$161,046.21	0.00%	99.84%
WEBER COUNTY, UT	5	3	\$159,703.32	0.00%	99.84%
WINDSOR COUNTY, VT	5	2	\$158,549.00	0.00%	99.85%
THURSTON COUNTY, WA	9	2	\$158,474.66	0.00%	99.85%
JEFFERSON COUNTY, AL	19	3	\$154,120.73	0.00%	99.85%
OVERSEAS COUNTY	6	3	\$152,968.00	0.00%	99.85%
SAINT TAMMANY COUNTY, LA	5	1	\$151,505.60	0.00%	99.85%
GENESEE COUNTY, MI	321	2	\$148,595.64	0.00%	99.85%
ROCKINGHAM COUNTY, NC	4	2	\$147,427.00	0.00%	99.86%
NIAGARA COUNTY, NY	11	2	\$141,731.40	0.00%	99.86%
TULSA COUNTY, OK	21	11	\$141,557.28	0.00%	99.86%
ANDERSON COUNTY, SC	24	2	\$141,282.11	0.00%	99.86%
DAVIDSON COUNTY, NC	6	1	\$139,137.70	0.00%	99.86%
JEFFERSON COUNTY, WI	24	4	\$137,860.66	0.00%	99.86%
JOHNSON COUNTY, IA	1	1	\$137,499.67	0.00%	99.86%
CLARK COUNTY, WA	10	8	\$133,428.96	0.00%	99.87%
CHAFFEE COUNTY, CO	5	1	\$133,074.46	0.00%	99.87%
POPE COUNTY, AR	6	2	\$131,515.00	0.00%	99.87%
MIAMI COUNTY, KS	13	5	\$130,760.63	0.00%	99.87%
LA PORTE COUNTY, IN	10	3	\$130,745.39	0.00%	99.87%
BALTIMORE COUNTY, MD	17	7	\$130,137.20	0.00%	99.87%
WASHINGTON COUNTY, OR	24	10	\$127,837.10	0.00%	99.87%
DAUPHIN COUNTY, PA	6	4	\$124,513.50	0.00%	99.88%
OKLAHOMA COUNTY, OK	13	4	\$124,068.68	0.00%	99.88%
FAYETTE COUNTY, TN	3	1	\$123,848.00	0.00%	99.88%
POLK COUNTY, IA	6	5	\$123,710.69	0.00%	99.88%
LEE COUNTY, AL	4	2	\$118,545.43	0.00%	99.88%
OCONEE COUNTY, GA	2	2	\$117,515.00	0.00%	99.88%
WASHINGTON COUNTY, NY	2	2	\$117,089.59	0.00%	99.88%
BERRIEN COUNTY, MI	10	5	\$116,784.17	0.00%	99.88%
DAWSON COUNTY, GA	3	1	\$116,374.72	0.00%	99.89%
POWESHIEK COUNTY, IA	43	1	\$115,842.62	0.00%	99.89%
HAYWOOD COUNTY, NC	3	1	\$111,297.00	0.00%	99.89%
FAYETTE COUNTY, GA	4	2	\$110,949.92	0.00%	99.89%
CRAWFORD COUNTY, PA	13	2	\$110,749.85	0.00%	99.89%
EL PASO COUNTY, TX	3	2	\$110,687.04	0.00%	99.89%
SAUK COUNTY, WI	8	3	\$109,690.78	0.00%	99.89%
ELBERT COUNTY, CO	8	1	\$109,133.61	0.00%	99.89%

APPENDIX A: DETAILED MARKET AREA ANALYSES

COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
WICHITA COUNTY, TX	7	2	\$108,219.36	0.00%	99.89%
SOLANO COUNTY, CA	13	3	\$107,135.83	0.00%	99.90%
PORTAGE COUNTY, WI	8	2	\$106,808.48	0.00%	99.90%
BRUNSWICK COUNTY, NC	11	4	\$106,201.41	0.00%	99.90%
HALL COUNTY, GA	3	2	\$102,713.00	0.00%	99.90%
FRANKLIN COUNTY, MA	13	1	\$101,230.06	0.00%	99.90%
FRANKLIN COUNTY, AL	6	3	\$100,613.00	0.00%	99.90%
ALLEN COUNTY, OH	9	2	\$100,591.35	0.00%	99.90%
WHATCOM COUNTY, WA	11	5	\$99,145.59	0.00%	99.90%
HORRY COUNTY, SC	2	2	\$98,354.00	0.00%	99.90%
MONTGOMERY COUNTY, OH	30	8	\$98,064.99	0.00%	99.91%
SENECA COUNTY, OH	6	2	\$95,688.50	0.00%	99.91%
LAKE COUNTY, FL	79	2	\$94,428.55	0.00%	99.91%
CHESHIRE COUNTY, NH	9	4	\$94,330.51	0.00%	99.91%
BRISTOL COUNTY, RI	19	3	\$93,932.34	0.00%	99.91%
CATAWBA COUNTY, NC	3	1	\$91,730.00	0.00%	99.91%
DISTRICT OF COLUMBIA, DC	13	7	\$91,582.32	0.00%	99.91%
SULLIVAN COUNTY, NH	2	1	\$90,911.92	0.00%	99.91%
WESTMORELAND COUNTY, PA	13	11	\$90,503.53	0.00%	99.91%
WINNEBAGO COUNTY, IL	8	2	\$89,848.71	0.00%	99.91%
FRANKLIN COUNTY, VA	18	1	\$89,678.70	0.00%	99.91%
ESCAMBIA COUNTY, FL	7	3	\$88,457.36	0.00%	99.92%
FAUQUIER COUNTY, VA	5	1	\$88,150.00	0.00%	99.92%
JEFFERSON COUNTY, PA	1	1	\$87,772.00	0.00%	99.92%
FRESNO COUNTY, CA	20	3	\$87,718.90	0.00%	99.92%
PICKENS COUNTY, GA	6	1	\$86,975.50	0.00%	99.92%
NELSON COUNTY, KY	2	1	\$85,508.00	0.00%	99.92%
MARATHON COUNTY, WI	8	4	\$85,037.83	0.00%	99.92%
STEELE COUNTY, MN	15	1	\$84,580.90	0.00%	99.92%
LARIMER COUNTY, CO	15	8	\$83,896.64	0.00%	99.92%
LORAIN COUNTY, OH	12	4	\$83,623.80	0.00%	99.92%
CLERMONT COUNTY, OH	7	2	\$83,525.24	0.00%	99.92%
SALINE COUNTY, AR	6	2	\$83,361.33	0.00%	99.93%
MACOMB COUNTY, MI	22	6	\$81,655.57	0.00%	99.93%
CUMBERLAND COUNTY, PA	21	7	\$81,571.74	0.00%	99.93%
WOOD COUNTY, OH	8	2	\$80,849.00	0.00%	99.93%
MIDLAND COUNTY, MI	2	2	\$80,439.55	0.00%	99.93%
SHASTA COUNTY, CA	9	3	\$79,187.35	0.00%	99.93%
BENTON COUNTY, OR	8	4	\$77,374.14	0.00%	99.93%
TUOLUMNE COUNTY, CA	6	2	\$77,171.56	0.00%	99.93%
YAMHILL COUNTY, OR	1	1	\$75,117.30	0.00%	99.93%
BERNALILLO COUNTY, NM	15	7	\$73,830.10	0.00%	99.93%
ROCK COUNTY, WI	12	3	\$73,730.06	0.00%	99.93%
FORT BEND COUNTY, TX	13	3	\$73,644.42	0.00%	99.93%
ALCORN COUNTY, MS	8	1	\$71,903.23	0.00%	99.93%
HAMILTON COUNTY, TN	4	3	\$71,650.33	0.00%	99.94%
GLYNN COUNTY, GA	2	2	\$70,897.12	0.00%	99.94%
BUNCOMBE COUNTY, NC	7	4	\$70,690.91	0.00%	99.94%
FAYETTE COUNTY, KY	4	1	\$69,200.75	0.00%	99.94%
JEFFERSON COUNTY, LA	6	2	\$68,405.97	0.00%	99.94%
RAMSEY COUNTY, MN	13	7	\$67,948.73	0.00%	99.94%
CORTLAND COUNTY, NY	6	1	\$67,831.85	0.00%	99.94%
CACHE COUNTY, UT	15	5	\$67,740.60	0.00%	99.94%
THROCKMORTON COUNTY, TX	1	1	\$67,018.68	0.00%	99.94%
WASHINGTON COUNTY, PA	9	4	\$66,845.19	0.00%	99.94%
SAINT CROIX COUNTY, WI	7	1	\$66,318.75	0.00%	99.94%
RUTHERFORD COUNTY, TN	15	4	\$61,621.20	0.00%	99.94%
CHAUTAUQUA COUNTY, NY	12	4	\$60,391.18	0.00%	99.94%
STANISLAUS COUNTY, CA	8	2	\$57,543.24	0.00%	99.94%

APPENDIX A: DETAILED MARKET AREA ANALYSES

COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
CHEROKEE COUNTY, GA	13	4	\$56,904.34	0.00%	99.95%
WINONA COUNTY, MN	6	2	\$56,626.51	0.00%	99.95%
WYANDOTTE COUNTY, KS	6	2	\$55,623.00	0.00%	99.95%
DALE COUNTY, AL	2	1	\$55,531.75	0.00%	99.95%
CARVER COUNTY, MN	10	5	\$55,043.16	0.00%	99.95%
CRITTENDEN COUNTY, AR	7	1	\$55,040.00	0.00%	99.95%
SANGAMON COUNTY, IL	1	1	\$54,524.00	0.00%	99.95%
COBB COUNTY, GA	17	9	\$52,393.64	0.00%	99.95%
MONTGOMERY COUNTY, TX	5	4	\$52,225.00	0.00%	99.95%
BLAIR COUNTY, PA	18	1	\$51,815.29	0.00%	99.95%
SKAGIT COUNTY, WA	4	2	\$51,317.02	0.00%	99.95%
WAYNE COUNTY, OH	5	3	\$51,040.37	0.00%	99.95%
ADA COUNTY, ID	6	3	\$50,504.14	0.00%	99.95%
RICHMOND COUNTY, GA	9	3	\$50,274.80	0.00%	99.95%
DADE COUNTY, GA	1	1	\$50,000.00	0.00%	99.95%
COLUMBIA COUNTY, GA	1	1	\$49,964.52	0.00%	99.95%
BENNINGTON COUNTY, VT	3	2	\$49,842.00	0.00%	99.95%
SAN LUIS OBISPO COUNTY, CA	9	6	\$49,607.73	0.00%	99.95%
TIPPECANOE COUNTY, IN	6	3	\$48,774.98	0.00%	99.95%
MERCER COUNTY, PA	4	3	\$48,442.00	0.00%	99.96%
DODGE COUNTY, WI	4	2	\$48,127.72	0.00%	99.96%
COWLITZ COUNTY, WA	5	3	\$47,742.72	0.00%	99.96%
ALACHUA COUNTY, FL	11	3	\$47,368.46	0.00%	99.96%
SURRY COUNTY, NC	4	3	\$46,000.00	0.00%	99.96%
WARREN COUNTY, TN	2	1	\$45,979.60	0.00%	99.96%
SAINT CHARLES COUNTY, MO	8	1	\$45,261.99	0.00%	99.96%
CLARK COUNTY, IN	2	2	\$44,361.90	0.00%	99.96%
KENNEBEC COUNTY, ME	12	2	\$42,769.12	0.00%	99.96%
JASPER COUNTY, MO	2	2	\$42,141.79	0.00%	99.96%
CARSON CITY COUNTY, NV	8	4	\$41,054.97	0.00%	99.96%
TUSCALOOSA COUNTY, AL	19	3	\$40,779.22	0.00%	99.96%
RICHLAND COUNTY, SC	5	3	\$40,668.58	0.00%	99.96%
UNION COUNTY, NC	5	1	\$40,018.44	0.00%	99.96%
TELLER COUNTY, CO	3	1	\$40,000.00	0.00%	99.96%
AROOSTOOK COUNTY, ME	2	1	\$39,840.00	0.00%	99.96%
SAINT JOHNS COUNTY, FL	3	3	\$39,363.14	0.00%	99.96%
NASSAU COUNTY, FL	10	2	\$38,931.08	0.00%	99.96%
MADISON COUNTY, AL	1	1	\$37,500.00	0.00%	99.96%
WATAUGA COUNTY, NC	2	1	\$37,352.00	0.00%	99.96%
STORY COUNTY, IA	4	1	\$37,170.40	0.00%	99.96%
HAMPSHIRE COUNTY, MA	7	5	\$37,041.41	0.00%	99.96%
UNION COUNTY, GA	9	2	\$36,786.72	0.00%	99.96%
CARROLL COUNTY, NH	5	2	\$36,500.00	0.00%	99.97%
SCHUYLKILL COUNTY, PA	1	1	\$35,800.00	0.00%	99.97%
MASON COUNTY, KY	6	1	\$35,763.60	0.00%	99.97%
ORLEANS COUNTY, VT	2	1	\$35,763.22	0.00%	99.97%
JACKSON COUNTY, OR	4	2	\$35,600.24	0.00%	99.97%
ETOWAH COUNTY, AL	7	1	\$35,325.00	0.00%	99.97%
JEFFERSON COUNTY, IA	6	1	\$35,138.76	0.00%	99.97%
BROOMFIELD COUNTY, CO	5	3	\$34,962.12	0.00%	99.97%
CENTRE COUNTY, PA	7	3	\$34,521.52	0.00%	99.97%
MCHENRY COUNTY, IL	9	4	\$33,541.06	0.00%	99.97%
ALBANY COUNTY, WY	3	1	\$33,500.00	0.00%	99.97%
WASHINGTON COUNTY, MD	3	3	\$33,467.04	0.00%	99.97%
BRAZOS COUNTY, TX	8	3	\$33,293.05	0.00%	99.97%
CHESTERFIELD COUNTY, VA	5	3	\$31,865.44	0.00%	99.97%
MERCER COUNTY, OH	3	2	\$31,845.20	0.00%	99.97%
HARDIN COUNTY, KY	5	2	\$31,232.29	0.00%	99.97%
MORGAN COUNTY, IN	1	1	\$31,144.30	0.00%	99.97%

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COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
KANKAKEE COUNTY, IL	7	1	\$29,765.54	0.00%	99.97%
WAYNE COUNTY, IN	5	2	\$29,611.00	0.00%	99.97%
ALLEGANY COUNTY, NY	2	1	\$29,500.00	0.00%	99.97%
HERNANDO COUNTY, FL	2	1	\$29,163.60	0.00%	99.97%
CAYUGA COUNTY, NY	8	4	\$29,151.75	0.00%	99.97%
FORSYTH COUNTY, NC	10	4	\$28,913.25	0.00%	99.97%
MECKLENBURG COUNTY, VA	5	2	\$28,779.32	0.00%	99.97%
WHITMAN COUNTY, WA	6	1	\$27,859.36	0.00%	99.97%
MONTGOMERY COUNTY, KY	7	1	\$27,081.00	0.00%	99.97%
DELAWARE COUNTY, OH	1	1	\$27,080.00	0.00%	99.97%
BARTHOLOMEW COUNTY, IN	1	1	\$26,897.04	0.00%	99.97%
GREENWOOD COUNTY, SC	20	2	\$26,187.49	0.00%	99.97%
KNOX COUNTY, IL	7	2	\$26,141.97	0.00%	99.97%
INGHAM COUNTY, MI	18	6	\$25,969.49	0.00%	99.97%
GREENE COUNTY, OH	5	1	\$25,726.52	0.00%	99.98%
HELPS COUNTY, MO	2	1	\$25,500.00	0.00%	99.98%
LINN COUNTY, IA	3	3	\$24,971.20	0.00%	99.98%
SHELBY COUNTY, AL	1	1	\$24,840.00	0.00%	99.98%
CARROLL COUNTY, IL	2	2	\$24,218.00	0.00%	99.98%
BRADFORD COUNTY, PA	1	1	\$24,215.00	0.00%	99.98%
SHELBY COUNTY, IA	2	1	\$24,205.00	0.00%	99.98%
VENANGO COUNTY, PA	1	1	\$23,961.00	0.00%	99.98%
GEAUGA COUNTY, OH	1	1	\$23,760.00	0.00%	99.98%
BARRON COUNTY, WI	4	1	\$23,733.49	0.00%	99.98%
GREENE COUNTY, MO	6	4	\$23,565.74	0.00%	99.98%
MUSCATINE COUNTY, IA	8	2	\$23,414.81	0.00%	99.98%
GRANVILLE COUNTY, NC	4	2	\$23,235.07	0.00%	99.98%
NOLAN COUNTY, TX	3	1	\$23,220.00	0.00%	99.98%
ST JOSEPH COUNTY, IN	3	2	\$23,166.50	0.00%	99.98%
LAFAYETTE COUNTY, LA	2	2	\$22,986.53	0.00%	99.98%
MERRIMACK COUNTY, NH	8	4	\$22,919.21	0.00%	99.98%
SMITH COUNTY, TX	5	3	\$22,632.09	0.00%	99.98%
MCLENNAN COUNTY, TX	5	3	\$22,530.18	0.00%	99.98%
OSWEGO COUNTY, NY	2	1	\$22,365.00	0.00%	99.98%
YORK COUNTY, SC	5	2	\$22,290.85	0.00%	99.98%
CLEARFIELD COUNTY, PA	2	1	\$22,050.80	0.00%	99.98%
BUTLER COUNTY, OH	3	3	\$21,354.00	0.00%	99.98%
DENTON COUNTY, TX	7	4	\$21,010.10	0.00%	99.98%
FRANKLIN COUNTY, IN	1	1	\$20,500.00	0.00%	99.98%
CRAWFORD COUNTY, OH	1	1	\$19,967.94	0.00%	99.98%
LAWRENCE COUNTY, IN	1	1	\$19,761.30	0.00%	99.98%
LAWRENCE COUNTY, PA	5	1	\$19,393.75	0.00%	99.98%
HOLMES COUNTY, OH	6	1	\$19,383.85	0.00%	99.98%
IOSCO COUNTY, MI	5	1	\$19,262.50	0.00%	99.98%
GRAVES COUNTY, KY	11	1	\$19,041.33	0.00%	99.98%
WARREN COUNTY, VA	1	1	\$18,814.40	0.00%	99.98%
IROQUOIS COUNTY, IL	1	1	\$18,573.00	0.00%	99.98%
WINCHESTER CITY COUNTY, VA	1	1	\$18,500.00	0.00%	99.98%
CAPE MAY COUNTY, NJ	1	1	\$18,475.00	0.00%	99.98%
IOWA COUNTY, WI	19	1	\$18,473.21	0.00%	99.98%
PITT COUNTY, NC	2	2	\$17,853.00	0.00%	99.98%
LIVINGSTON COUNTY, MI	2	2	\$17,841.00	0.00%	99.98%
WALWORTH COUNTY, WI	1	1	\$17,554.00	0.00%	99.98%
ROCK ISLAND COUNTY, IL	4	3	\$17,533.76	0.00%	99.98%
JASPER COUNTY, IN	1	1	\$17,363.50	0.00%	99.98%
RICHLAND COUNTY, OH	1	1	\$17,250.00	0.00%	99.98%
SAINT MARY COUNTY, LA	1	1	\$17,040.00	0.00%	99.98%
JOSEPHINE COUNTY, OR	6	2	\$16,852.50	0.00%	99.98%
SANDUSKY COUNTY, OH	1	1	\$16,600.00	0.00%	99.98%

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COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
DONA ANA COUNTY, NM	1	1	\$16,575.71	0.00%	99.98%
GALVESTON COUNTY, TX	1	1	\$16,500.00	0.00%	99.99%
RUSK COUNTY, WI	1	1	\$16,445.50	0.00%	99.99%
MUSCOGEE COUNTY, GA	1	1	\$16,010.00	0.00%	99.99%
SHELBY COUNTY, OH	2	2	\$15,895.30	0.00%	99.99%
WASHINGTON COUNTY, WI	5	2	\$15,651.98	0.00%	99.99%
BELL COUNTY, TX	10	2	\$15,570.99	0.00%	99.99%
KERN COUNTY, CA	1	1	\$15,093.97	0.00%	99.99%
HAMILTON COUNTY, NE	2	2	\$15,044.02	0.00%	99.99%
BIBB COUNTY, GA	1	1	\$15,000.00	0.00%	99.99%
CRAIGHEAD COUNTY, AR	2	2	\$14,996.92	0.00%	99.99%
WICOMICO COUNTY, MD	1	1	\$14,917.65	0.00%	99.99%
WALKER COUNTY, GA	4	2	\$14,901.79	0.00%	99.99%
EFFINGHAM COUNTY, IL	2	1	\$14,832.80	0.00%	99.99%
MONROE COUNTY, KY	1	1	\$14,772.34	0.00%	99.99%
OLMSTED COUNTY, MN	9	1	\$14,412.71	0.00%	99.99%
MARIN COUNTY, CA	8	7	\$14,383.14	0.00%	99.99%
LANCASTER COUNTY, NE	3	2	\$14,156.35	0.00%	99.99%
MOBILE COUNTY, AL	4	4	\$14,075.80	0.00%	99.99%
SCHLEY COUNTY, GA	2	1	\$13,771.76	0.00%	99.99%
VAN ZANDT COUNTY, TX	1	1	\$13,640.00	0.00%	99.99%
CARROLL COUNTY, MD	4	2	\$13,584.80	0.00%	99.99%
GRIMES COUNTY, TX	10	2	\$13,546.39	0.00%	99.99%
EMMET COUNTY, MI	4	1	\$13,500.00	0.00%	99.99%
LAUDERDALE COUNTY, MS	1	1	\$13,500.00	0.00%	99.99%
DICKINSON COUNTY, MI	4	1	\$13,321.60	0.00%	99.99%
ALAMANCE COUNTY, NC	4	3	\$13,056.44	0.00%	99.99%
WAYNE COUNTY, PA	2	1	\$13,009.00	0.00%	99.99%
GILES COUNTY, VA	4	1	\$12,989.53	0.00%	99.99%
WYANDOT COUNTY, OH	1	1	\$12,766.55	0.00%	99.99%
OUTAGAMIE COUNTY, WI	4	2	\$12,671.70	0.00%	99.99%
LIMESTONE COUNTY, AL	1	1	\$12,480.00	0.00%	99.99%
YATES COUNTY, NY	1	1	\$12,404.61	0.00%	99.99%
BLACK HAWK COUNTY, IA	1	1	\$12,132.50	0.00%	99.99%
TRUMBULL COUNTY, OH	3	1	\$12,022.24	0.00%	99.99%
MADISON COUNTY, MS	1	1	\$12,021.94	0.00%	99.99%
BENTON COUNTY, IA	9	1	\$11,910.85	0.00%	99.99%
KENOSHA COUNTY, WI	2	2	\$11,896.02	0.00%	99.99%
DEARBORN COUNTY, IN	1	1	\$11,880.00	0.00%	99.99%
HAMBLEN COUNTY, TN	1	1	\$11,831.00	0.00%	99.99%
GALLATIN COUNTY, MT	3	3	\$11,615.93	0.00%	99.99%
NORTHAMPTON COUNTY, VA	1	1	\$11,408.70	0.00%	99.99%
CLARKE COUNTY, GA	6	1	\$11,391.00	0.00%	99.99%
CHATHAM COUNTY, GA	4	3	\$11,386.90	0.00%	99.99%
MARIPOSA COUNTY, CA	5	1	\$11,372.53	0.00%	99.99%
WELLS COUNTY, IN	1	1	\$11,269.00	0.00%	99.99%
GRAYSON COUNTY, TX	3	2	\$11,253.62	0.00%	99.99%
BONNER COUNTY, ID	5	1	\$11,153.43	0.00%	99.99%
MUSKOGON COUNTY, MI	3	2	\$11,024.60	0.00%	99.99%
BROOKE COUNTY, WV	2	1	\$10,807.09	0.00%	99.99%
LUBBOCK COUNTY, TX	1	1	\$10,750.60	0.00%	99.99%
WAYNESBORO CITY COUNTY, VA	2	1	\$10,629.00	0.00%	99.99%
COOS COUNTY, NH	1	1	\$10,589.65	0.00%	99.99%
PENNINGTON COUNTY, SD	1	1	\$10,456.00	0.00%	99.99%
SENECA COUNTY, NY	8	1	\$10,300.00	0.00%	99.99%
HIGHLAND COUNTY, OH	2	1	\$10,229.43	0.00%	99.99%
NEWPORT NEWS CITY COUNTY, VA	2	1	\$9,995.93	0.00%	99.99%
DESCHUTES COUNTY, OR	2	1	\$9,981.00	0.00%	99.99%
JAMES CITY COUNTY, VA	2	2	\$9,966.12	0.00%	99.99%

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COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
RALEIGH COUNTY, WV	2	1	\$9,954.00	0.00%	99.99%
FILLMORE COUNTY, MN	3	2	\$9,667.41	0.00%	99.99%
ALLEN COUNTY, IN	4	3	\$9,642.90	0.00%	99.99%
VERMILION COUNTY, IL	3	1	\$9,522.00	0.00%	99.99%
SANTA FE COUNTY, NM	2	2	\$9,458.78	0.00%	99.99%
GRATIOT COUNTY, MI	2	1	\$9,170.00	0.00%	99.99%
CARROLL COUNTY, GA	2	2	\$9,152.00	0.00%	99.99%
ELLIS COUNTY, TX	1	1	\$9,009.00	0.00%	99.99%
SUMMIT COUNTY, UT	3	2	\$8,744.48	0.00%	99.99%
PENNINGTON COUNTY, MN	5	1	\$8,664.01	0.00%	99.99%
SPARTANBURG COUNTY, SC	3	2	\$8,382.48	0.00%	99.99%
GRAND TRAVERSE COUNTY, MI	2	2	\$8,303.00	0.00%	99.99%
POLK COUNTY, WI	5	2	\$8,216.29	0.00%	99.99%
DUKES COUNTY, MA	3	2	\$8,030.00	0.00%	99.99%
PORTAGE COUNTY, OH	4	2	\$8,008.75	0.00%	99.99%
DOUGLAS COUNTY, CO	4	2	\$7,985.00	0.00%	99.99%
RANDOLPH COUNTY, MO	15	2	\$7,943.00	0.00%	99.99%
LAFAYETTE COUNTY, MS	7	1	\$7,799.00	0.00%	99.99%
COLE COUNTY, MO	4	1	\$7,605.00	0.00%	99.99%
SCOTT COUNTY, MN	1	1	\$7,600.00	0.00%	99.99%
WASHINGTON COUNTY, AR	1	1	\$7,549.42	0.00%	99.99%
MADISON COUNTY, NE	5	1	\$7,468.58	0.00%	99.99%
KANAWHA COUNTY, WV	3	1	\$7,447.00	0.00%	99.99%
CECIL COUNTY, MD	2	2	\$7,426.00	0.00%	99.99%
POTTER COUNTY, PA	3	1	\$7,409.08	0.00%	99.99%
COLUMBIA COUNTY, AR	2	1	\$7,407.04	0.00%	99.99%
MENDOCINO COUNTY, CA	10	1	\$7,360.96	0.00%	100.00%
LEE COUNTY, GA	2	1	\$7,193.56	0.00%	100.00%
LYNCHBURG CITY COUNTY, VA	5	1	\$7,183.76	0.00%	100.00%
TAZEWELL COUNTY, IL	1	1	\$7,125.00	0.00%	100.00%
MONROE COUNTY, MI	3	1	\$7,062.03	0.00%	100.00%
SULLIVAN COUNTY, TN	4	2	\$6,940.50	0.00%	100.00%
COLBERT COUNTY, AL	3	1	\$6,883.00	0.00%	100.00%
HUNT COUNTY, TX	1	1	\$6,855.37	0.00%	100.00%
GARFIELD COUNTY, CO	1	1	\$6,842.30	0.00%	100.00%
MARTINSVILLE CITY COUNTY, VA	1	1	\$6,834.60	0.00%	100.00%
BEDFORD COUNTY, PA	3	1	\$6,817.16	0.00%	100.00%
GORDON COUNTY, GA	2	1	\$6,752.91	0.00%	100.00%
ANDERSON COUNTY, TX	1	1	\$6,650.00	0.00%	100.00%
MONROE COUNTY, IL	1	1	\$6,413.00	0.00%	100.00%
JESSAMINE COUNTY, KY	1	1	\$6,225.00	0.00%	100.00%
ADAMS COUNTY, NE	1	1	\$6,222.50	0.00%	100.00%
SEBASTIAN COUNTY, AR	2	2	\$6,127.00	0.00%	100.00%
CLEBURNE COUNTY, AR	1	1	\$6,000.00	0.00%	100.00%
FAYETTE COUNTY, TX	3	1	\$5,914.71	0.00%	100.00%
LINCOLN COUNTY, NC	1	1	\$5,900.00	0.00%	100.00%
YOUNG COUNTY, TX	2	1	\$5,890.00	0.00%	100.00%
CHIPPEWA COUNTY, WI	2	1	\$5,855.25	0.00%	100.00%
WAYNE COUNTY, NC	2	1	\$5,793.78	0.00%	100.00%
CLARK COUNTY, OH	4	1	\$5,637.45	0.00%	100.00%
CERRO GORDO COUNTY, IA	5	1	\$5,492.81	0.00%	100.00%
SANDERS COUNTY, MT	3	1	\$5,464.22	0.00%	100.00%
MARION COUNTY, AL	1	1	\$5,339.75	0.00%	100.00%
CASS COUNTY, MO	1	1	\$5,288.70	0.00%	100.00%
ATHENS COUNTY, OH	3	1	\$5,267.42	0.00%	100.00%
LANCASTER COUNTY, SC	1	1	\$5,250.00	0.00%	100.00%
BEAUFORT COUNTY, SC	4	2	\$5,170.61	0.00%	100.00%
FULTON COUNTY, OH	1	1	\$5,000.00	0.00%	100.00%
THOMAS COUNTY, GA	1	1	\$4,993.17	0.00%	100.00%

APPENDIX A: DETAILED MARKET AREA ANALYSES

COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
ROCKWALL COUNTY, TX	1	1	\$4,990.00	0.00%	100.00%
SANILAC COUNTY, MI	2	2	\$4,974.00	0.00%	100.00%
LUCAS COUNTY, OH	11	2	\$4,968.96	0.00%	100.00%
VIGO COUNTY, IN	2	2	\$4,967.00	0.00%	100.00%
PIPESTONE COUNTY, MN	1	1	\$4,959.00	0.00%	100.00%
CROW WING COUNTY, MN	1	1	\$4,895.00	0.00%	100.00%
COSHOCTON COUNTY, OH	1	1	\$4,894.12	0.00%	100.00%
BURLEIGH COUNTY, ND	1	1	\$4,845.00	0.00%	100.00%
JOHNSTON COUNTY, NC	2	2	\$4,800.00	0.00%	100.00%
WALDO COUNTY, ME	3	2	\$4,765.61	0.00%	100.00%
CALVERT COUNTY, MD	2	1	\$4,753.00	0.00%	100.00%
INDIANA COUNTY, PA	2	1	\$4,718.39	0.00%	100.00%
WOODFORD COUNTY, IL	1	1	\$4,638.00	0.00%	100.00%
MARSHALL COUNTY, KS	2	1	\$4,626.42	0.00%	100.00%
BAY COUNTY, FL	1	1	\$4,625.91	0.00%	100.00%
LYON COUNTY, NV	3	1	\$4,625.03	0.00%	100.00%
HENRY COUNTY, GA	1	1	\$4,608.00	0.00%	100.00%
BOONE COUNTY, MO	1	1	\$4,538.50	0.00%	100.00%
TULARE COUNTY, CA	3	2	\$4,449.77	0.00%	100.00%
DODGE COUNTY, NE	3	2	\$4,436.45	0.00%	100.00%
LEWIS COUNTY, NY	2	1	\$4,312.16	0.00%	100.00%
SHIAWASSEE COUNTY, MI	2	1	\$4,304.09	0.00%	100.00%
CAMERON COUNTY, TX	1	1	\$4,152.78	0.00%	100.00%
PULASKI COUNTY, KY	1	1	\$4,125.50	0.00%	100.00%
MAURY COUNTY, TN	1	1	\$3,980.00	0.00%	100.00%
JEFFERSON COUNTY, OH	1	1	\$3,839.00	0.00%	100.00%
WAGONER COUNTY, OK	1	1	\$3,710.00	0.00%	100.00%
WASHINGTON COUNTY, VT	2	1	\$3,705.43	0.00%	100.00%
WOOD COUNTY, WV	1	1	\$3,519.49	0.00%	100.00%
COLUMBIA COUNTY, OR	1	1	\$3,480.00	0.00%	100.00%
BALDWIN COUNTY, AL	1	1	\$3,479.00	0.00%	100.00%
PIKE COUNTY, GA	1	1	\$3,470.00	0.00%	100.00%
CHEROKEE COUNTY, IA	1	1	\$3,461.00	0.00%	100.00%
STAFFORD COUNTY, VA	1	1	\$3,359.00	0.00%	100.00%
HALL COUNTY, NE	1	1	\$3,340.50	0.00%	100.00%
BUTLER COUNTY, KS	1	1	\$3,338.00	0.00%	100.00%
EL DORADO COUNTY, CA	2	2	\$3,285.25	0.00%	100.00%
SUFFOLK COUNTY, NY	1	1	\$3,200.00	0.00%	100.00%
KENT COUNTY, MD	4	2	\$3,148.80	0.00%	100.00%
NORTHUMBERLAND COUNTY, PA	1	1	\$2,955.00	0.00%	100.00%
LA CROSSE COUNTY, WI	1	1	\$2,950.00	0.00%	100.00%
HARALSON COUNTY, GA	2	1	\$2,937.68	0.00%	100.00%
MECOSTA COUNTY, MI	1	1	\$2,924.00	0.00%	100.00%
CHARLEVOIX COUNTY, MI	3	2	\$2,901.16	0.00%	100.00%
LINCOLN COUNTY, OK	1	1	\$2,892.00	0.00%	100.00%
LEWIS COUNTY, WA	1	1	\$2,846.40	0.00%	100.00%
SALINE COUNTY, KS	2	1	\$2,775.00	0.00%	100.00%
PIKE COUNTY, PA	3	2	\$2,750.00	0.00%	100.00%
GIBSON COUNTY, TN	2	1	\$2,542.62	0.00%	100.00%
ORANGE COUNTY, VA	1	1	\$2,500.00	0.00%	100.00%
STEARNS COUNTY, MN	2	1	\$2,460.35	0.00%	100.00%
DESOTO COUNTY, MS	2	1	\$2,425.10	0.00%	100.00%
CRAWFORD COUNTY, AR	1	1	\$2,419.60	0.00%	100.00%
WASHINGTON COUNTY, OK	1	1	\$2,340.37	0.00%	100.00%
MEEKER COUNTY, MN	2	1	\$2,339.14	0.00%	100.00%
LINN COUNTY, OR	2	1	\$2,315.77	0.00%	100.00%
POLK COUNTY, FL	1	1	\$2,310.00	0.00%	100.00%
WINDHAM COUNTY, VT	5	4	\$2,287.82	0.00%	100.00%
CHAMPAIGN COUNTY, IL	3	2	\$2,240.95	0.00%	100.00%

APPENDIX A: DETAILED MARKET AREA ANALYSES

COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
RANDOLPH COUNTY, IN	1	1	\$2,237.20	0.00%	100.00%
HAMILTON COUNTY, IN	1	1	\$2,117.00	0.00%	100.00%
LEBANON COUNTY, PA	3	1	\$2,063.00	0.00%	100.00%
LAMPASAS COUNTY, TX	1	1	\$2,000.00	0.00%	100.00%
SAN JOAQUIN COUNTY, CA	1	1	\$2,000.00	0.00%	100.00%
SAINT CLAIR COUNTY, IL	1	1	\$1,898.95	0.00%	100.00%
WOOD COUNTY, WI	4	1	\$1,852.65	0.00%	100.00%
BUCKINGHAM COUNTY, VA	2	1	\$1,819.12	0.00%	100.00%
POSEY COUNTY, IN	2	1	\$1,739.80	0.00%	100.00%
BATH COUNTY, VA	2	1	\$1,714.00	0.00%	100.00%
LUMPKIN COUNTY, GA	1	1	\$1,680.00	0.00%	100.00%
SARPY COUNTY, NE	1	1	\$1,675.00	0.00%	100.00%
TIOGA COUNTY, PA	4	1	\$1,568.25	0.00%	100.00%
BOSSIER COUNTY, LA	3	1	\$1,535.80	0.00%	100.00%
YUMA COUNTY, AZ	1	1	\$1,495.96	0.00%	100.00%
CUMBERLAND COUNTY, NC	1	1	\$1,476.38	0.00%	100.00%
BOYD COUNTY, KY	2	1	\$1,475.00	0.00%	100.00%
PRINCE WILLIAM COUNTY, VA	2	2	\$1,430.67	0.00%	100.00%
CHARLOTTEVILLE CITY COUNTY, VA	1	1	\$1,406.00	0.00%	100.00%
HENDERSON COUNTY, NC	1	1	\$1,400.00	0.00%	100.00%
CLEVELAND COUNTY, OK	1	1	\$1,329.65	0.00%	100.00%
MESA COUNTY, CO	3	1	\$1,309.00	0.00%	100.00%
OKALOOSA COUNTY, FL	1	1	\$1,280.00	0.00%	100.00%
STEBEN COUNTY, IN	1	1	\$1,265.88	0.00%	100.00%
YAVAPAI COUNTY, AZ	1	1	\$1,238.30	0.00%	100.00%
CABARRUS COUNTY, NC	1	1	\$1,218.35	0.00%	100.00%
KOSCIUSKO COUNTY, IN	1	1	\$1,211.00	0.00%	100.00%
GILLESPIE COUNTY, TX	1	1	\$1,201.57	0.00%	100.00%
CRAVEN COUNTY, NC	5	1	\$1,160.00	0.00%	100.00%
ONEIDA COUNTY, WI	2	1	\$1,088.00	0.00%	100.00%
WILSON COUNTY, TX	1	1	\$1,062.00	0.00%	100.00%
SAGINAW COUNTY, MI	1	1	\$1,048.23	0.00%	100.00%
FRANKLIN COUNTY, PA	3	1	\$1,046.40	0.00%	100.00%
CHENANGO COUNTY, NY	1	1	\$1,000.00	0.00%	100.00%
EAU CLAIRE COUNTY, WI	2	2	\$982.95	0.00%	100.00%
TAYLOR COUNTY, TX	1	1	\$935.03	0.00%	100.00%
LINCOLN COUNTY, LA	1	1	\$900.00	0.00%	100.00%
LA SALLE COUNTY, IL	2	2	\$899.67	0.00%	100.00%
GRAND COUNTY, UT	1	0	\$870.00	0.00%	100.00%
LEXINGTON CITY COUNTY, VA	1	1	\$857.08	0.00%	100.00%
CALEDONIA COUNTY, VT	1	1	\$814.00	0.00%	100.00%
CLAY COUNTY, FL	1	1	\$798.00	0.00%	100.00%
HAYS COUNTY, TX	1	1	\$750.00	0.00%	100.00%
CHIPPEWA COUNTY, MI	1	1	\$702.25	0.00%	100.00%
MINNEHAHA COUNTY, SD	1	1	\$670.69	0.00%	100.00%
PULASKI COUNTY, AR	1	1	\$662.70	0.00%	100.00%
STANLY COUNTY, NC	1	1	\$650.00	0.00%	100.00%
PEMBINA COUNTY, ND	1	1	\$639.05	0.00%	100.00%
ANDERSON COUNTY, KY	1	1	\$634.78	0.00%	100.00%
OZAUKEE COUNTY, WI	1	1	\$584.00	0.00%	100.00%
MERIWETHER COUNTY, GA	1	1	\$537.55	0.00%	100.00%
EATON COUNTY, MI	1	1	\$429.34	0.00%	100.00%
WARREN COUNTY, KY	2	1	\$427.76	0.00%	100.00%
BOTETOURT COUNTY, VA	1	1	\$414.30	0.00%	100.00%
PLUMAS COUNTY, CA	1	1	\$405.00	0.00%	100.00%
BOONE COUNTY, KY	1	1	\$399.82	0.00%	100.00%
JACKSON COUNTY, MI	1	1	\$369.95	0.00%	100.00%
ALBEMARLE COUNTY, VA	1	1	\$350.00	0.00%	100.00%
ISANTI COUNTY, MN	1	1	\$325.27	0.00%	100.00%

APPENDIX A: DETAILED MARKET AREA ANALYSES

COUNTY-STATE	NUMBER OF CONTRACTS	NUMBER OF VENDORS	AMOUNT	PERCENT	CUMULATIVE PERCENT
LONOKE COUNTY, AR	1	1	\$299.96	0.00%	100.00%
CAMBRIA COUNTY, PA	1	1	\$270.00	0.00%	100.00%
NEVADA COUNTY, CA	1	1	\$241.45	0.00%	100.00%
MARQUETTE COUNTY, MI	1	1	\$194.84	0.00%	100.00%
KEWAUNEE COUNTY, WI	1	1	\$159.10	0.00%	100.00%
BOND COUNTY, IL	1	1	\$96.00	0.00%	100.00%
WARREN COUNTY, PA	1	1	\$89.85	0.00%	100.00%
MAHASKA COUNTY, IA	1	1	\$74.74	0.00%	100.00%
LAKE COUNTY, IN	1	1	\$68.74	0.00%	100.00%
JONES COUNTY, MS	1	1	\$46.35	0.00%	100.00%
BLUE EARTH COUNTY, MN	1	1	\$-	0.00%	100.00%
BROWN COUNTY, TX	1	1	\$-	0.00%	100.00%
NASH COUNTY, NC	1	1	\$-	0.00%	100.00%
ORLEANS COUNTY, NY	1	1	\$-	0.00%	100.00%
PORTER COUNTY, IN	1	1	\$-	0.00%	100.00%
ROANOKE CITY COUNTY, VA	1	1	\$-	0.00%	100.00%
ROSS COUNTY, OH	2	1	\$-	0.00%	100.00%
SCOTT COUNTY, KY	1	1	\$-	0.00%	100.00%
SUSQUEHANNA COUNTY, PA	1	1	\$-	0.00%	100.00%
TIPTON COUNTY, TN	1	1	\$-	0.00%	100.00%
YOLO COUNTY, CA	1	1	\$-	0.00%	100.00%

Source: MGT developed a Master Prime File based on dollars awarded by the City of New York between July 1, 2006 and June 30, 2015.

¹ Cumulative percent of total dollars for location of firms (market area).

Location of firms listed to the dotted line represent counties and states in the City's five boroughs, to the solid line represent counties and states considered to be eligible for Minority and Women-owned Business Enterprise (M/WBE) Certification, and to the double line represent counties and states in the New York-Newark-Jersey City, NY-NJ-PA Metropolitan Statistical Area (MSA).

TABLE A-7: DISTRIBUTION OF DOLLARS BY BUSINESS CATEGORY AND YEAR

PROCUREMENT CATEGORIES	FISCAL YEAR	AMOUNT	PERCENT
Architecture & Engineering	2007	\$1,120,187,982.77	8.25%
	2008	\$4,619,338,285.30	34.04%
	2009	\$1,282,925,174.60	9.45%
	2010	\$2,558,763,233.90	18.86%
	2011	\$457,592,777.96	3.37%
	2012	\$503,806,641.60	3.71%
	2013	\$1,265,593,330.80	9.33%
	2014	\$469,572,709.38	3.46%
	2015	\$1,292,230,051.20	9.52%
Architecture & Engineering, Total		\$13,570,010,187.51	100.00%
Construction	2007	\$875,195,697.40	5.93%
	2008	\$1,583,402,263.60	10.73%
	2009	\$1,482,774,137.80	10.04%
	2010	\$3,584,672,631.50	24.28%
	2011	\$1,188,441,633.20	8.05%
	2012	\$1,360,769,347.70	9.22%
	2013	\$1,476,013,814.80	10.00%
	2014	\$1,602,603,404.50	10.86%
	2015	\$1,609,009,787.30	10.90%
Construction, Total		\$14,762,882,717.80	100.00%
Professional Services	2007	\$2,506,658,130.70	19.95%
	2008	\$1,617,069,330.40	12.87%
	2009	\$2,577,111,295.54	20.52%
	2010	\$581,758,147.98	4.63%

PROCUREMENT CATEGORIES	FISCAL YEAR	AMOUNT	PERCENT
	2011	\$1,415,147,730.10	11.27%
	2012	\$783,677,267.76	6.24%
	2013	\$774,463,088.20	6.17%
	2014	\$643,019,461.05	5.12%
	2015	\$1,662,910,481.40	13.24%
Professional Services, Total		\$12,561,814,933.13	100.00%
Standardized Services	2007	\$2,683,797,410.30	12.12%
	2008	\$3,199,336,752.00	14.45%
	2009	\$1,711,876,761.00	7.73%
	2010	\$2,198,787,019.80	9.93%
	2011	\$1,152,977,290.20	5.21%
	2012	\$1,889,012,651.40	8.53%
	2013	\$1,427,041,753.90	6.44%
	2014	\$5,883,136,638.45	26.56%
	2015	\$2,000,330,678.40	9.03%
Standardized Services, Total		\$22,146,296,955.45	100.00%
Goods or Commodities	2007	\$1,025,714,781.20	10.64%
	2008	\$499,574,751.14	5.18%
	2009	\$682,551,755.91	7.08%
	2010	\$1,273,687,604.00	13.21%
	2011	\$1,779,740,670.70	18.45%
	2012	\$1,380,734,822.50	14.32%
	2013	\$1,186,550,080.00	12.30%
	2014	\$953,882,510.00	9.89%
	2015	\$862,218,776.21	8.94%
Goods or Commodities, Total		\$9,644,655,751.66	100.00%
Grand Total		\$72,685,660,545.55	

Source: MGT developed a Master Prime File based on dollars expended by the City of New York between July 1, 2006 and June 30, 2015.

Appendix B: Detailed Utilization Analysis

DISPARITY STUDY

City of New York



TABLE B-1
 UTILIZATION OF FIRMS ANALYSIS: DISTRIBUTION OF DOLLARS BY BUSINESS OWNERSHIP CLASSIFICATION AND YEAR
 ALL PROCUREMENT CATEGORIES

BUSINESS OWNERSHIP CLASSIFICATION	2007	2008	2009	2010	2011	2012	2013	2014	2015	TOTAL
	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
African American Male	\$47,051,292.00	\$69,486,626.30	\$61,705,995.54	\$136,798,471.55	\$153,599,287.04	\$56,088,271.58	\$65,009,077.50	\$57,925,607.12	\$41,224,475.06	\$688,889,103.69
African American Female	\$18,401,907.71	\$79,374.53	\$29,435,138.81	\$7,678,614.74	\$12,569,552.14	\$12,005,057.28	\$3,084,124.07	\$9,788,901.66	\$18,161,464.29	\$111,904,135.23
AFRICAN AMERICAN	\$65,453,199.71	\$70,266,000.83	\$91,141,134.35	\$144,477,086.29	\$166,168,839.18	\$68,093,328.86	\$68,093,201.57	\$67,714,508.78	\$59,385,939.35	\$800,793,238.92
Asian American Male	\$156,461,237.98	\$138,863,498.36	\$155,870,337.26	\$243,669,601.60	\$176,671,927.04	\$173,885,760.63	\$200,604,736.90	\$160,617,322.26	\$168,874,891.88	\$1,575,519,313.91
Asian American Female	\$8,127,036.47	\$7,940,127.45	\$19,372,781.96	\$25,019,282.76	\$18,301,723.51	\$10,513,637.34	\$19,473,160.55	\$18,343,822.70	\$13,681,465.67	\$140,773,038.41
ASIAN AMERICAN	\$164,588,274.45	\$146,803,625.81	\$175,243,119.22	\$268,688,884.36	\$194,973,650.55	\$184,399,397.97	\$220,077,897.45	\$178,961,144.96	\$182,556,357.55	\$1,716,292,352.32
Hispanic American Male	\$33,571,089.75	\$42,434,595.84	\$68,643,259.82	\$118,309,148.59	\$79,604,688.16	\$50,298,457.53	\$105,616,963.60	\$77,993,170.14	\$131,998,153.56	\$708,469,526.99
Hispanic American Female	\$1,092,834.44	\$30,130,182.35	\$6,034,304.30	\$41,220,159.89	\$19,275,982.96	\$13,672,588.84	\$10,150,735.34	\$8,335,444.22	\$10,295,809.67	\$140,208,042.01
HISPANIC AMERICAN	\$34,663,924.19	\$72,564,778.19	\$74,677,564.12	\$159,529,308.48	\$98,880,671.12	\$63,971,046.37	\$115,767,698.94	\$86,328,614.36	\$142,293,963.23	\$848,677,569.00
Native American Male	\$102,412.00	\$134,421.01	\$241,460.23	\$406,341.00	\$366,900.55	\$230,411.20	\$192,347.00	\$145,075.00	\$96,379.39	\$1,915,747.38
Native American Female	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
NATIVE AMERICAN	\$102,412.00	\$134,421.01	\$241,460.23	\$406,341.00	\$366,900.55	\$230,411.20	\$192,347.00	\$145,075.00	\$96,379.39	\$1,915,747.38
TOTAL MBE	\$264,807,810.35	\$289,768,825.84	\$341,303,277.92	\$573,101,620.13	\$460,390,061.40	\$316,694,184.40	\$404,131,144.96	\$333,149,343.10	\$384,332,639.52	\$3,367,678,907.62
NONMINORITY FEMALE	\$153,956,223.75	\$321,075,373.40	\$178,064,173.21	\$418,249,399.52	\$228,545,005.03	\$190,228,860.41	\$187,713,729.43	\$413,984,722.12	\$204,728,023.31	\$2,296,545,510.18
TOTAL WBE	\$181,578,002.37	\$359,925,057.73	\$232,906,398.28	\$492,167,456.91	\$278,692,263.64	\$226,420,143.87	\$220,421,749.39	\$450,452,890.70	\$246,866,762.94	\$2,689,430,725.83
TOTAL M/WBE	\$418,764,034.10	\$610,844,199.24	\$519,367,451.13	\$991,351,019.65	\$688,935,066.43	\$506,923,044.81	\$591,844,874.39	\$747,134,065.22	\$589,060,662.83	\$5,664,224,417.80
NON-M/WBE	\$6,426,536,069.98	\$8,337,190,317.60	\$5,779,118,100.86	\$6,008,516,456.09	\$4,417,131,802.87	\$3,866,244,677.87	\$4,255,645,303.98	\$4,608,422,690.46	\$5,324,523,274.85	\$49,023,328,694.56
TOTAL FIRMS	\$6,845,300,104.08	\$8,948,034,516.84	\$6,298,485,551.99	\$6,999,867,475.74	\$5,106,066,869.30	\$4,373,167,722.68	\$4,847,490,178.37	\$5,355,556,755.68	\$5,913,583,937.68	\$54,687,553,112.36

BUSINESS OWNERSHIP CLASSIFICATION	2007	2008	2009	2010	2011	2012	2013	2014	2015	TOTAL
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
African American Male	0.69%	0.78%	0.98%	1.95%	3.01%	1.28%	1.34%	1.08%	0.70%	1.26%
African American Female	0.27%	0.01%	0.47%	0.11%	0.25%	0.27%	0.06%	0.18%	0.31%	0.20%
AFRICAN AMERICAN	0.96%	0.79%	1.45%	2.06%	3.25%	1.56%	1.40%	1.26%	1.00%	1.46%
Asian American Male	2.29%	1.55%	2.47%	3.48%	3.46%	3.98%	4.14%	3.00%	2.86%	2.88%
Asian American Female	0.12%	0.09%	0.31%	0.36%	0.36%	0.24%	0.40%	0.34%	0.23%	0.26%
ASIAN AMERICAN	2.40%	1.64%	2.78%	3.84%	3.82%	4.22%	4.54%	3.34%	3.09%	3.14%
Hispanic American Male	0.49%	0.47%	1.09%	1.69%	1.56%	1.15%	2.18%	1.46%	2.23%	1.30%
Hispanic American Female	0.02%	0.34%	0.10%	0.59%	0.38%	0.31%	0.21%	0.16%	0.17%	0.26%
HISPANIC AMERICAN	0.51%	0.81%	1.19%	2.28%	1.94%	1.46%	2.39%	1.61%	2.41%	1.55%
Native American Male	0.00%	0.00%	0.00%	0.01%	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%
Native American Female	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
NATIVE AMERICAN	0.00%	0.00%	0.00%	0.01%	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%
TOTAL MBE	3.87%	3.24%	5.42%	8.19%	9.02%	7.24%	8.34%	6.22%	6.50%	6.16%
NONMINORITY FEMALE	2.25%	3.59%	2.83%	5.98%	4.48%	4.35%	3.87%	7.73%	3.46%	4.20%
TOTAL WBE	2.65%	4.02%	3.70%	7.03%	5.46%	5.18%	4.55%	8.41%	4.17%	4.92%
TOTAL M/WBE	6.12%	6.83%	8.25%	14.16%	13.49%	11.59%	12.21%	13.95%	9.96%	10.36%
NON-M/WBE	93.88%	93.17%	91.75%	85.84%	86.51%	88.41%	87.79%	86.05%	90.04%	89.64%
TOTAL FIRMS	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

TABLE B-2
 UTILIZATION OF FIRMS ANALYSIS: DISTRIBUTION OF DOLLARS BY BUSINESS OWNERSHIP CLASSIFICATION AND YEAR
 ARCHITECTURE & ENGINEERING

BUSINESS OWNERSHIP CLASSIFICATION	2007	2008	2009	2010	2011	2012	2013	2014	2015	TOTAL
	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
African American Male	\$85,526.00	\$352,584.90	\$0.00	\$97,130.00	\$181,373.84	\$4,100.00	\$2,332,720.57	\$5,174,297.43	\$1,855,937.36	\$10,083,670.10
African American Female	\$0.00	\$15,540.00	\$30,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$350,000.00	\$500,000.00	\$895,540.00
AFRICAN AMERICAN	\$85,526.00	\$368,124.90	\$30,000.00	\$97,130.00	\$181,373.84	\$4,100.00	\$2,332,720.57	\$5,524,297.43	\$2,355,937.36	\$10,979,210.10
Asian American Male	\$9,442,347.59	\$11,852,062.15	\$10,178,841.71	\$36,855,006.28	\$20,552,635.33	\$51,530,006.69	\$25,358,298.28	\$42,387,464.97	\$29,403,543.73	\$237,560,206.73
Asian American Female	\$2.00	\$2,889,952.09	\$3,560,000.00	\$3,819,493.28	\$884,944.44	\$962,007.59	\$6,142,050.68	\$8,047,768.47	\$2,947,001.08	\$29,253,219.63
ASIAN AMERICAN	\$9,442,349.59	\$14,742,014.24	\$13,738,841.71	\$40,674,499.56	\$21,437,579.77	\$52,492,014.28	\$31,500,348.96	\$50,435,233.44	\$32,350,544.81	\$266,813,426.36
Hispanic American Male	\$3,479,112.14	\$9,246.20	\$2,871,928.64	\$26,663.00	\$182,811.97	\$380,696.56	\$604,244.05	\$4,042,176.60	\$16,641,638.00	\$28,238,517.16
Hispanic American Female	\$0.00	\$0.00	\$0.00	\$140.00	\$0.00	\$0.00	\$324,400.00	\$530,935.00	\$494,473.00	\$1,349,948.00
HISPANIC AMERICAN	\$3,479,112.14	\$9,246.20	\$2,871,928.64	\$26,803.00	\$182,811.97	\$380,696.56	\$928,644.05	\$4,573,111.60	\$17,136,111.00	\$29,588,465.16
Native American Male	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Native American Female	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
NATIVE AMERICAN	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
TOTAL MBE	\$13,006,987.73	\$15,119,385.34	\$16,640,770.35	\$40,798,432.56	\$21,801,765.58	\$52,876,810.84	\$34,761,713.58	\$60,532,642.47	\$51,842,593.17	\$307,381,101.62
NONMINORITY FEMALE	\$10,366,916.78	\$9,409,263.73	\$4,863,704.45	\$3,143,084.44	\$4,011,227.07	\$3,914,689.43	\$12,351,934.40	\$17,952,937.98	\$13,809,194.07	\$79,822,952.35
TOTAL WBE	\$10,366,918.78	\$12,314,755.82	\$8,453,704.45	\$6,962,717.72	\$4,896,171.51	\$4,876,697.02	\$18,818,385.08	\$26,881,641.45	\$17,750,668.15	\$111,321,659.98
TOTAL M/WBE	\$23,373,904.51	\$24,528,649.07	\$21,504,474.80	\$43,941,517.00	\$25,812,992.65	\$56,791,500.27	\$47,113,647.98	\$78,485,580.45	\$65,651,787.24	\$387,204,053.97
NON-M/WBE	\$866,120,741.84	\$3,657,755,770.71	\$954,610,823.05	\$1,009,871,176.82	\$224,436,738.36	\$347,375,907.63	\$876,864,136.63	\$279,576,246.43	\$995,538,623.51	\$9,212,150,164.98
TOTAL FIRMS	\$889,494,646.35	\$3,682,284,419.78	\$976,115,297.85	\$1,053,812,693.82	\$250,249,731.01	\$404,167,407.90	\$923,977,784.61	\$358,061,826.88	\$1,061,190,410.75	\$9,599,354,218.95

BUSINESS OWNERSHIP CLASSIFICATION	2007	2008	2009	2010	2011	2012	2013	2014	2015	TOTAL
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
African American Male	0.01%	0.01%	0.00%	0.01%	0.07%	0.00%	0.25%	1.45%	0.17%	0.11%
African American Female	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.10%	0.05%	0.01%
AFRICAN AMERICAN	0.01%	0.01%	0.00%	0.01%	0.07%	0.00%	0.25%	1.54%	0.22%	0.11%
Asian American Male	1.06%	0.32%	1.04%	3.50%	8.21%	12.75%	2.74%	11.84%	2.77%	2.47%
Asian American Female	0.00%	0.08%	0.36%	0.36%	0.35%	0.24%	0.66%	2.25%	0.28%	0.30%
ASIAN AMERICAN	1.06%	0.40%	1.41%	3.86%	8.57%	12.99%	3.41%	14.09%	3.05%	2.78%
Hispanic American Male	0.39%	0.00%	0.29%	0.00%	0.07%	0.09%	0.07%	1.13%	1.57%	0.29%
Hispanic American Female	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.04%	0.15%	0.05%	0.01%
HISPANIC AMERICAN	0.39%	0.00%	0.29%	0.00%	0.07%	0.09%	0.10%	1.28%	1.61%	0.31%
Native American Male	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Native American Female	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
NATIVE AMERICAN	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
TOTAL MBE	1.46%	0.41%	1.70%	3.87%	8.71%	13.08%	3.76%	16.91%	4.89%	3.20%
NONMINORITY FEMALE	1.17%	0.26%	0.50%	0.30%	1.60%	0.97%	1.34%	5.01%	1.30%	0.83%
TOTAL WBE	1.17%	0.33%	0.87%	0.66%	1.96%	1.21%	2.04%	7.51%	1.67%	1.16%
TOTAL M/WBE	2.63%	0.67%	2.20%	4.17%	10.31%	14.05%	5.10%	21.92%	6.19%	4.03%
NON-M/WBE	97.37%	99.33%	97.80%	95.83%	89.69%	85.95%	94.90%	78.08%	93.81%	95.97%
TOTAL FIRMS	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

TABLE B-3
 UTILIZATION OF FIRMS ANALYSIS: DISTRIBUTION OF DOLLARS BY BUSINESS OWNERSHIP CLASSIFICATION AND YEAR
 CONSTRUCTION

BUSINESS OWNERSHIP CLASSIFICATION	2007	2008	2009	2010	2011	2012	2013	2014	2015	TOTAL
	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
African American Male	\$30,334,219.51	\$36,026,547.02	\$40,971,872.36	\$104,625,921.35	\$141,767,495.29	\$42,358,645.84	\$47,992,622.59	\$29,124,416.13	\$23,314,821.36	\$496,516,561.45
African American Female	\$260,924.00	\$69,000.00	\$1,175,463.00	\$4,990,058.24	\$6,720,010.99	\$3,320,443.00	\$436,023.51	\$1,077,077.07	\$567,954.51	\$18,616,954.32
AFRICAN AMERICAN	\$30,595,143.51	\$36,095,547.02	\$42,147,335.36	\$109,615,979.59	\$148,487,506.28	\$45,679,088.84	\$48,428,646.10	\$30,201,493.20	\$23,882,775.87	\$515,133,515.77
Asian American Male	\$68,104,489.31	\$84,269,122.29	\$56,655,487.47	\$138,674,323.97	\$114,683,022.31	\$52,841,706.55	\$59,977,570.39	\$70,488,999.98	\$47,163,907.59	\$692,858,629.86
Asian American Female	\$2,222,834.47	\$2,957,320.95	\$7,678,491.25	\$8,711,034.23	\$9,068,773.22	\$4,187,544.00	\$2,896,128.57	\$2,231,130.61	\$2,664,877.78	\$42,618,135.08
ASIAN AMERICAN	\$70,327,323.78	\$87,226,443.24	\$64,333,978.72	\$147,385,358.20	\$123,751,795.53	\$57,029,250.55	\$62,873,698.96	\$72,720,130.59	\$49,828,785.37	\$735,476,764.94
Hispanic American Male	\$12,442,218.18	\$13,350,195.81	\$48,042,518.83	\$82,372,692.67	\$36,455,611.44	\$29,627,249.45	\$77,760,034.03	\$40,464,062.78	\$64,697,704.41	\$405,212,287.60
Hispanic American Female	\$548,567.44	\$26,697,218.00	\$2,648,396.43	\$28,889,332.56	\$13,402,212.71	\$3,369,469.31	\$4,114,938.98	\$4,546,341.61	\$1,310,176.19	\$85,526,653.23
HISPANIC AMERICAN	\$12,990,785.62	\$40,047,413.81	\$50,690,915.26	\$111,262,025.23	\$49,857,824.15	\$32,996,718.76	\$81,874,973.01	\$45,010,404.39	\$66,007,880.60	\$490,738,940.83
Native American Male	\$61,013.00	\$134,421.01	\$241,460.23	\$354,291.00	\$366,900.55	\$230,411.20	\$192,347.00	\$114,724.00	\$96,379.39	\$1,791,947.38
Native American Female	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
NATIVE AMERICAN	\$61,013.00	\$134,421.01	\$241,460.23	\$354,291.00	\$366,900.55	\$230,411.20	\$192,347.00	\$114,724.00	\$96,379.39	\$1,791,947.38
TOTAL MBE	\$113,974,265.91	\$163,503,825.08	\$157,413,689.57	\$368,617,654.02	\$322,464,026.51	\$135,935,469.35	\$193,369,665.07	\$148,046,752.18	\$139,815,821.23	\$1,743,141,168.92
NONMINORITY FEMALE	\$98,491,098.22	\$141,850,270.61	\$122,847,428.72	\$263,597,179.54	\$112,612,019.60	\$69,211,779.79	\$89,335,519.50	\$151,843,736.59	\$79,507,396.49	\$1,129,296,429.06
TOTAL WBE	\$101,523,424.13	\$171,573,809.56	\$134,349,779.40	\$306,187,604.57	\$141,803,016.52	\$80,089,236.10	\$96,782,610.56	\$159,698,285.88	\$84,050,404.97	\$1,276,058,171.69
TOTAL M/WBE	\$212,465,364.13	\$305,354,095.69	\$280,261,118.29	\$632,214,833.56	\$435,076,046.11	\$205,147,249.14	\$282,705,184.57	\$299,890,488.77	\$219,323,217.72	\$2,872,437,597.98
NON-M/WBE	\$935,352,348.13	\$1,061,008,584.67	\$1,466,137,582.52	\$2,353,981,646.26	\$1,285,314,067.45	\$1,183,912,423.94	\$1,052,611,828.17	\$1,149,855,764.12	\$1,406,403,515.97	\$11,894,577,761.23
TOTAL FIRMS	\$1,147,817,712.26	\$1,366,362,680.36	\$1,746,398,700.81	\$2,986,196,479.82	\$1,720,390,113.56	\$1,389,059,673.08	\$1,335,317,012.74	\$1,449,746,252.89	\$1,625,726,733.69	\$14,767,015,359.21

BUSINESS OWNERSHIP CLASSIFICATION	2007	2008	2009	2010	2011	2012	2013	2014	2015	TOTAL
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
African American Male	2.64%	2.64%	2.35%	3.50%	8.24%	3.05%	3.59%	2.01%	1.43%	3.36%
African American Female	0.02%	0.01%	0.07%	0.17%	0.39%	0.24%	0.03%	0.07%	0.03%	0.13%
AFRICAN AMERICAN	2.67%	2.64%	2.41%	3.67%	8.63%	3.29%	3.63%	2.08%	1.47%	3.49%
Asian American Male	5.93%	6.17%	3.24%	4.64%	6.67%	3.80%	4.49%	4.86%	2.90%	4.69%
Asian American Female	0.19%	0.22%	0.44%	0.29%	0.53%	0.30%	0.22%	0.15%	0.16%	0.29%
ASIAN AMERICAN	6.13%	6.38%	3.68%	4.94%	7.19%	4.11%	4.71%	5.02%	3.07%	4.98%
Hispanic American Male	1.08%	0.98%	2.75%	2.76%	2.12%	2.13%	5.82%	2.79%	3.98%	2.74%
Hispanic American Female	0.05%	1.95%	0.15%	0.97%	0.78%	0.24%	0.31%	0.31%	0.08%	0.58%
HISPANIC AMERICAN	1.13%	2.93%	2.90%	3.73%	2.90%	2.38%	6.13%	3.10%	4.06%	3.32%
Native American Male	0.01%	0.01%	0.01%	0.01%	0.02%	0.02%	0.01%	0.01%	0.01%	0.01%
Native American Female	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
NATIVE AMERICAN	0.01%	0.01%	0.01%	0.01%	0.02%	0.02%	0.01%	0.01%	0.01%	0.01%
TOTAL MBE	9.93%	11.97%	9.01%	12.34%	18.74%	9.79%	14.48%	10.21%	8.60%	11.80%
NONMINORITY FEMALE	8.58%	10.38%	7.03%	8.83%	6.55%	4.98%	6.69%	10.47%	4.89%	7.65%
TOTAL WBE	8.84%	12.56%	7.69%	10.25%	8.24%	5.77%	7.25%	11.02%	5.17%	8.64%
TOTAL M/WBE	18.51%	22.35%	16.05%	21.17%	25.29%	14.77%	21.17%	20.69%	13.49%	19.45%
NON-M/WBE	81.49%	77.65%	83.95%	78.83%	74.71%	85.23%	78.83%	79.31%	86.51%	80.55%
TOTAL FIRMS	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

TABLE B-4
 UTILIZATION OF FIRMS ANALYSIS: DISTRIBUTION OF DOLLARS BY BUSINESS OWNERSHIP CLASSIFICATION AND YEAR
 PROFESSIONAL SERVICES

BUSINESS OWNERSHIP CLASSIFICATION	2007	2008	2009	2010	2011	2012	2013	2014	2015	TOTAL
	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
African American Male	\$2,423,349.27	\$18,377,605.87	\$7,878,583.31	\$4,750,746.66	\$3,721,028.73	\$3,155,295.46	\$4,272,494.89	\$14,789,423.63	\$8,032,451.68	\$67,400,979.50
African American Female	\$120,662.50	\$341,784.00	\$381,267.76	\$1,469,793.92	\$4,503,901.43	\$4,739,785.44	\$375,687.00	\$2,284,580.65	\$10,304,809.98	\$24,522,272.68
AFRICAN AMERICAN	\$2,544,011.77	\$18,719,389.87	\$8,259,851.07	\$6,220,540.58	\$8,224,930.16	\$7,895,080.90	\$4,648,181.89	\$17,074,004.28	\$18,337,261.66	\$91,923,252.18
Asian American Male	\$39,466,540.50	\$22,739,599.81	\$60,460,520.34	\$48,857,471.59	\$22,933,615.00	\$49,638,025.58	\$93,713,595.30	\$29,968,260.67	\$52,632,476.83	\$420,410,105.62
Asian American Female	\$5,800,000.00	\$1,841,571.00	\$7,135,047.00	\$7,064,346.52	\$2,762,993.97	\$1,625,603.46	\$988,639.94	\$3,472,142.61	\$1,191,618.62	\$31,881,963.12
ASIAN AMERICAN	\$45,266,540.50	\$24,581,170.81	\$67,595,567.34	\$55,921,818.11	\$25,696,608.97	\$51,263,629.04	\$94,702,235.24	\$33,440,403.28	\$53,824,095.45	\$452,292,068.74
Hispanic American Male	\$2,890,182.87	\$9,364,181.50	\$1,526,335.58	\$5,970,510.47	\$22,976,826.48	\$3,134,128.94	\$5,343,678.48	\$5,705,327.96	\$11,069,205.17	\$67,980,377.45
Hispanic American Female	\$25,000.00	\$189,995.00	\$424,550.00	\$3,894,202.31	\$436,886.09	\$6,928,857.61	\$1,372,865.82	\$1,841,633.05	\$5,632,887.37	\$20,746,877.25
HISPANIC AMERICAN	\$2,915,182.87	\$9,554,176.50	\$1,950,885.58	\$9,864,712.78	\$23,413,712.57	\$10,062,986.55	\$6,716,544.30	\$7,546,961.01	\$16,702,092.54	\$88,727,254.70
Native American Male	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Native American Female	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
NATIVE AMERICAN	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
TOTAL MBE	\$50,725,735.14	\$52,854,737.18	\$77,806,303.99	\$72,007,071.47	\$57,335,251.70	\$69,221,696.49	\$106,066,961.43	\$58,061,368.57	\$88,863,449.65	\$632,942,575.62
NONMINORITY FEMALE	\$19,976,715.58	\$36,059,179.11	\$20,721,161.21	\$34,367,050.59	\$19,553,376.43	\$24,150,260.20	\$17,369,967.02	\$27,987,409.48	\$27,114,126.85	\$227,299,246.47
TOTAL WBE	\$25,922,378.08	\$38,432,529.11	\$28,662,025.97	\$46,795,393.34	\$27,257,157.92	\$37,444,506.71	\$20,107,159.78	\$35,585,765.79	\$44,243,442.82	\$304,450,359.52
TOTAL M/WBE	\$70,702,450.72	\$88,913,916.29	\$98,527,465.20	\$106,374,122.06	\$76,888,628.13	\$93,371,956.69	\$123,436,928.45	\$86,048,778.05	\$115,977,576.50	\$860,241,822.09
NON-M/WBE	\$2,204,283,260.83	\$1,388,360,598.86	\$2,091,769,593.95	\$377,695,286.51	\$1,039,618,650.44	\$451,970,757.26	\$616,680,834.14	\$326,156,767.96	\$1,079,897,193.81	\$9,576,432,943.76
TOTAL FIRMS	\$2,274,985,711.55	\$1,477,274,515.15	\$2,190,297,059.15	\$484,069,408.57	\$1,116,507,278.57	\$545,342,713.95	\$740,117,762.59	\$412,205,546.01	\$1,195,874,770.31	\$10,436,674,765.85

BUSINESS OWNERSHIP CLASSIFICATION	2007	2008	2009	2010	2011	2012	2013	2014	2015	TOTAL
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
African American Male	0.11%	1.24%	0.36%	0.98%	0.33%	0.58%	0.58%	3.59%	0.67%	0.65%
African American Female	0.01%	0.02%	0.02%	0.30%	0.40%	0.87%	0.05%	0.55%	0.86%	0.23%
AFRICAN AMERICAN	0.11%	1.27%	0.38%	1.29%	0.74%	1.45%	0.63%	4.14%	1.53%	0.88%
Asian American Male	1.73%	1.54%	2.76%	10.09%	2.05%	9.10%	12.66%	7.27%	4.40%	4.03%
Asian American Female	0.25%	0.12%	0.33%	1.46%	0.25%	0.30%	0.13%	0.84%	0.10%	0.31%
ASIAN AMERICAN	1.99%	1.66%	3.09%	11.55%	2.30%	9.40%	12.80%	8.11%	4.50%	4.33%
Hispanic American Male	0.13%	0.63%	0.07%	1.23%	2.06%	0.57%	0.72%	1.38%	0.93%	0.65%
Hispanic American Female	0.00%	0.01%	0.02%	0.80%	0.04%	1.27%	0.19%	0.45%	0.47%	0.20%
HISPANIC AMERICAN	0.13%	0.65%	0.09%	2.04%	2.10%	1.85%	0.91%	1.83%	1.40%	0.85%
Native American Male	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Native American Female	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
NATIVE AMERICAN	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
TOTAL MBE	2.23%	3.58%	3.55%	14.88%	5.14%	12.69%	14.33%	14.09%	7.43%	6.06%
NONMINORITY FEMALE	0.88%	2.44%	0.95%	7.10%	1.75%	4.43%	2.35%	6.79%	2.27%	2.18%
TOTAL WBE	1.14%	2.60%	1.31%	9.67%	2.44%	6.87%	2.72%	8.63%	3.70%	2.92%
TOTAL M/WBE	3.11%	6.02%	4.50%	21.97%	6.89%	17.12%	16.68%	20.88%	9.70%	8.24%
NON-M/WBE	96.89%	93.98%	95.50%	78.03%	93.11%	82.88%	83.32%	79.12%	90.30%	91.76%
TOTAL FIRMS	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

TABLE B-5
UTILIZATION OF FIRMS ANALYSIS: DISTRIBUTION OF DOLLARS BY BUSINESS OWNERSHIP CLASSIFICATION AND YEAR
STANDARDIZED SERVICES

BUSINESS OWNERSHIP CLASSIFICATION	2007	2008	2009	2010	2011	2012	2013	2014	2015	TOTAL
	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
African American Male	\$14,203,134.62	\$13,659,300.90	\$10,796,623.45	\$21,886,744.79	\$3,926,789.05	\$7,169,811.23	\$6,781,962.84	\$5,952,553.49	\$4,971,460.94	\$89,348,381.31
African American Female	\$17,995,321.21	\$190,207.56	\$27,599,039.38	\$790,086.02	\$980,068.18	\$3,406,711.21	\$1,370,936.60	\$5,162,000.59	\$2,458,028.84	\$59,952,399.59
AFRICAN AMERICAN	\$32,198,455.83	\$13,849,508.46	\$38,395,662.83	\$22,676,830.81	\$4,906,857.23	\$10,576,522.44	\$8,152,899.44	\$11,114,554.08	\$7,429,489.78	\$149,300,780.90
Asian American Male	\$36,620,965.08	\$14,614,746.58	\$25,635,178.93	\$12,866,656.82	\$8,761,693.02	\$12,461,138.27	\$10,360,135.45	\$11,361,461.52	\$26,586,067.48	\$159,268,043.15
Asian American Female	\$104,200.00	\$171,493.00	\$331,923.00	\$176,772.28	\$902,452.63	\$299,718.85	\$5,440,937.58	\$289,395.78	\$5,140,775.80	\$12,857,668.92
ASIAN AMERICAN	\$36,725,165.08	\$14,786,239.58	\$25,967,101.93	\$13,043,429.10	\$9,664,145.65	\$12,760,857.12	\$15,801,073.03	\$11,650,857.30	\$31,726,843.28	\$172,125,712.07
Hispanic American Male	\$14,517,175.95	\$18,726,979.30	\$14,673,089.47	\$26,750,990.61	\$10,681,253.43	\$10,018,930.84	\$14,408,708.42	\$14,846,876.90	\$12,962,546.82	\$137,586,551.74
Hispanic American Female	\$517,330.40	\$2,666,318.06	\$2,231,910.60	\$6,330,180.69	\$4,268,818.56	\$2,333,848.38	\$3,305,521.25	\$453,532.09	\$2,059,537.97	\$24,166,998.00
HISPANIC AMERICAN	\$15,034,506.35	\$21,393,297.36	\$16,905,000.07	\$33,081,171.30	\$14,950,071.99	\$12,352,779.22	\$17,714,229.67	\$15,300,408.99	\$15,022,084.79	\$161,753,549.74
Native American Male	\$41,399.00	\$0.00	\$0.00	\$27,050.00	\$0.00	\$0.00	\$0.00	\$26,390.00	\$0.00	\$94,839.00
Native American Female	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
NATIVE AMERICAN	\$41,399.00	\$0.00	\$0.00	\$27,050.00	\$0.00	\$0.00	\$0.00	\$26,390.00	\$0.00	\$94,839.00
TOTAL MBE	\$83,999,526.26	\$50,029,045.40	\$81,267,764.83	\$68,828,481.21	\$29,521,074.87	\$35,690,158.78	\$41,668,202.14	\$38,092,210.37	\$54,178,417.85	\$483,274,881.71
NONMINORITY FEMALE	\$24,070,828.17	\$119,900,699.66	\$21,907,859.05	\$63,634,799.84	\$40,566,421.37	\$49,911,564.70	\$27,801,065.69	\$172,273,061.79	\$34,946,376.12	\$555,012,676.39
TOTAL WBE	\$42,687,679.78	\$122,928,718.28	\$52,070,732.03	\$70,931,838.83	\$46,717,760.74	\$55,951,843.14	\$37,918,461.12	\$178,177,990.25	\$44,604,718.73	\$651,989,742.90
TOTAL M/WBE	\$108,070,354.43	\$169,929,745.06	\$103,175,623.88	\$132,463,281.05	\$70,087,496.24	\$85,601,723.48	\$69,469,267.83	\$210,365,272.16	\$89,124,793.97	\$1,038,287,558.10
NON-M/WBE	\$2,225,314,698.47	\$1,987,405,677.64	\$1,006,022,296.20	\$1,484,424,880.88	\$890,147,446.59	\$1,160,605,797.27	\$1,028,107,095.61	\$2,356,931,944.65	\$1,428,796,763.23	\$13,567,756,600.54
TOTAL FIRMS	\$2,333,385,052.90	\$2,157,335,422.70	\$1,109,197,920.08	\$1,616,888,161.93	\$960,234,942.83	\$1,246,207,520.75	\$1,097,576,363.44	\$2,567,297,216.81	\$1,517,921,557.20	\$14,606,044,158.64

BUSINESS OWNERSHIP CLASSIFICATION	2007	2008	2009	2010	2011	2012	2013	2014	2015	TOTAL
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
African American Male	0.61%	0.63%	0.97%	1.35%	0.41%	0.58%	0.62%	0.23%	0.33%	0.61%
African American Female	0.77%	0.01%	2.49%	0.05%	0.10%	0.27%	0.12%	0.20%	0.16%	0.41%
AFRICAN AMERICAN	1.38%	0.64%	3.46%	1.40%	0.51%	0.85%	0.74%	0.43%	0.49%	1.02%
Asian American Male	1.57%	0.68%	2.31%	0.80%	0.91%	1.00%	0.94%	0.44%	1.75%	1.09%
Asian American Female	0.00%	0.01%	0.03%	0.01%	0.09%	0.02%	0.50%	0.01%	0.34%	0.09%
ASIAN AMERICAN	1.57%	0.69%	2.34%	0.81%	1.01%	1.02%	1.44%	0.45%	2.09%	1.18%
Hispanic American Male	0.62%	0.87%	1.32%	1.65%	1.11%	0.80%	1.31%	0.58%	0.85%	0.94%
Hispanic American Female	0.02%	0.12%	0.20%	0.39%	0.44%	0.19%	0.30%	0.02%	0.14%	0.17%
HISPANIC AMERICAN	0.64%	0.99%	1.52%	2.05%	1.56%	0.99%	1.61%	0.60%	0.99%	1.11%
Native American Male	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Native American Female	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
NATIVE AMERICAN	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
TOTAL MBE	3.60%	2.32%	7.33%	4.26%	3.07%	2.86%	3.80%	1.48%	3.57%	3.31%
NONMINORITY FEMALE	1.03%	5.56%	1.98%	3.94%	4.22%	4.01%	2.53%	6.71%	2.30%	3.80%
TOTAL WBE	1.83%	5.70%	4.69%	4.39%	4.87%	4.49%	3.45%	6.94%	2.94%	4.46%
TOTAL M/WBE	4.63%	7.88%	9.30%	8.19%	7.30%	6.87%	6.33%	8.19%	5.87%	7.11%
NON-M/WBE	95.37%	92.12%	90.70%	91.81%	92.70%	93.13%	93.67%	91.81%	94.13%	92.89%
TOTAL FIRMS	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

TABLE B-6
 UTILIZATION OF FIRMS ANALYSIS: DISTRIBUTION OF DOLLARS BY BUSINESS OWNERSHIP CLASSIFICATION AND YEAR
 GOODS OR COMMODITIES

BUSINESS OWNERSHIP CLASSIFICATION	2007	2008	2009	2010	2011	2012	2013	2014	2015	TOTAL
	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
African American Male	\$5,062.60	\$1,070,587.61	\$2,058,916.42	\$5,437,928.75	\$4,002,600.13	\$3,400,419.05	\$3,629,276.61	\$2,884,916.44	\$3,049,803.72	\$25,539,511.33
African American Female	\$25,000.00	\$162,842.97	\$249,368.67	\$428,676.56	\$365,571.54	\$538,117.63	\$901,476.96	\$915,243.35	\$4,330,670.96	\$7,916,968.64
AFRICAN AMERICAN	\$30,062.60	\$1,233,430.58	\$2,308,285.09	\$5,866,605.31	\$4,368,171.67	\$3,938,536.68	\$4,530,753.57	\$3,800,159.79	\$7,380,474.68	\$33,456,479.97
Asian American Male	\$2,826,895.50	\$5,387,967.53	\$2,940,308.81	\$6,416,142.94	\$9,740,961.38	\$7,414,883.54	\$11,195,137.48	\$6,411,135.12	\$13,088,896.25	\$65,422,328.55
Asian American Female	\$0.00	\$79,790.41	\$667,320.71	\$5,247,636.45	\$4,682,559.25	\$3,438,763.44	\$4,005,403.78	\$4,303,385.23	\$1,737,192.39	\$24,162,051.66
ASIAN AMERICAN	\$2,826,895.50	\$5,467,757.94	\$3,607,629.52	\$11,663,779.39	\$14,423,520.63	\$10,853,646.98	\$15,200,541.26	\$10,714,520.35	\$14,826,088.64	\$89,584,380.21
Hispanic American Male	\$242,400.61	\$983,993.03	\$1,529,387.30	\$3,188,291.84	\$9,308,184.84	\$7,137,451.74	\$7,500,298.62	\$12,934,725.90	\$26,627,059.16	\$69,451,793.04
Hispanic American Female	\$1,936.60	\$576,651.29	\$729,447.27	\$2,106,304.33	\$1,168,065.60	\$1,040,413.54	\$1,033,009.29	\$963,002.47	\$798,735.14	\$8,417,565.53
HISPANIC AMERICAN	\$244,337.21	\$1,560,644.32	\$2,258,834.57	\$5,294,596.17	\$10,476,250.44	\$8,177,865.28	\$8,533,307.91	\$13,897,728.37	\$27,425,794.30	\$77,869,358.57
Native American Male	\$0.00	\$0.00	\$0.00	\$25,000.00	\$0.00	\$0.00	\$0.00	\$3,961.00	\$0.00	\$28,961.00
Native American Female	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
NATIVE AMERICAN	\$0.00	\$0.00	\$0.00	\$25,000.00	\$0.00	\$0.00	\$0.00	\$3,961.00	\$0.00	\$28,961.00
TOTAL MBE	\$3,101,295.31	\$8,261,832.84	\$8,174,749.18	\$22,849,980.87	\$29,267,942.74	\$22,970,048.94	\$28,264,602.74	\$28,416,369.51	\$49,632,357.62	\$200,939,179.75
NONMINORITY FEMALE	\$1,050,665.00	\$13,855,960.29	\$7,724,019.78	\$53,507,285.11	\$51,801,960.56	\$43,040,566.29	\$40,855,242.82	\$43,927,576.28	\$49,350,929.78	\$305,114,205.91
TOTAL WBE	\$1,077,601.60	\$14,675,244.96	\$9,370,156.43	\$61,289,902.45	\$58,018,156.95	\$48,057,860.90	\$46,795,132.85	\$50,109,207.33	\$56,217,528.27	\$345,610,791.74
TOTAL M/WBE	\$4,151,960.31	\$22,117,793.13	\$15,898,768.96	\$76,357,265.98	\$81,069,903.30	\$66,010,615.23	\$69,119,845.56	\$72,343,945.79	\$98,983,287.40	\$506,053,385.66
NON-M/WBE	\$195,465,020.71	\$242,659,685.72	\$260,577,805.14	\$782,543,465.62	\$977,614,900.03	\$722,379,791.77	\$681,381,409.43	\$495,901,967.30	\$413,887,178.33	\$4,772,411,224.05
TOTAL FIRMS	\$199,616,981.02	\$264,777,478.85	\$276,476,574.10	\$858,900,731.60	\$1,058,684,803.33	\$788,390,407.00	\$750,501,254.99	\$568,245,913.09	\$512,870,465.73	\$5,278,464,609.71

BUSINESS OWNERSHIP CLASSIFICATION	2007	2008	2009	2010	2011	2012	2013	2014	2015	TOTAL
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
African American Male	0.00%	0.40%	0.74%	0.63%	0.38%	0.43%	0.48%	0.51%	0.59%	0.48%
African American Female	0.01%	0.06%	0.09%	0.05%	0.03%	0.07%	0.12%	0.16%	0.84%	0.15%
AFRICAN AMERICAN	0.02%	0.47%	0.83%	0.68%	0.41%	0.50%	0.60%	0.67%	1.44%	0.63%
Asian American Male	1.42%	2.03%	1.06%	0.75%	0.92%	0.94%	1.49%	1.13%	2.55%	1.24%
Asian American Female	0.00%	0.03%	0.24%	0.61%	0.44%	0.44%	0.53%	0.76%	0.34%	0.46%
ASIAN AMERICAN	1.42%	2.07%	1.30%	1.36%	1.36%	1.38%	2.03%	1.89%	2.89%	1.70%
Hispanic American Male	0.12%	0.37%	0.55%	0.37%	0.88%	0.91%	1.00%	2.28%	5.19%	1.32%
Hispanic American Female	0.00%	0.22%	0.26%	0.25%	0.11%	0.13%	0.14%	0.17%	0.16%	0.16%
HISPANIC AMERICAN	0.12%	0.59%	0.82%	0.62%	0.99%	1.04%	1.14%	2.45%	5.35%	1.48%
Native American Male	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Native American Female	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
NATIVE AMERICAN	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
TOTAL MBE	1.55%	3.12%	2.96%	2.66%	2.76%	2.91%	3.77%	5.00%	9.68%	3.81%
NONMINORITY FEMALE	0.53%	5.23%	2.79%	6.23%	4.89%	5.46%	5.44%	7.73%	9.62%	5.78%
TOTAL WBE	0.54%	5.54%	3.39%	7.14%	5.48%	6.10%	6.24%	8.82%	10.96%	6.55%
TOTAL M/WBE	2.08%	8.35%	5.75%	8.89%	7.66%	8.37%	9.21%	12.73%	19.30%	9.59%
NON-M/WBE	97.92%	91.65%	94.25%	91.11%	92.34%	91.63%	90.79%	87.27%	80.70%	90.41%
TOTAL FIRMS	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

APPENDIX C: Custom Census Survey
Instrument

DISPARITY STUDY

City of New York



ENTER THE D&B D-U-N-S NUMBER

Hello. My name is _____, with (consultants name), and we are conducting a 5-minute survey for MGT Consulting Group (MGT) on behalf of the City of New York (City). The purpose of this survey is to help identify available firms in the marketplace interested in conducting business with the City.

Is this _____ (Company's name)? **IF COMPANY NAME VERIFIED, CONTINUE.**

Are you the owner or an authorized decision maker in your company? **[IF NO]** May I speak with that person? **[IF NO, SCHEDULE CALL-BACK]?**

IF OWNER IS PUT ON THE LINE: CONTINUE

IF TRANSFERRED TO ANOTHER PARTY (CFO, MANAGER, ETC): Are you able to answer questions concerning business practices of this company? **IF YES, CONTINUE.**

Your company's information has been provided to us from Dun & Bradstreet.

Thank you for agreeing to participate in this research study. Your input is very important to the outcome of the study. *If you have any questions regarding the survey, I will be happy to provide you a contact at the end of the survey.*

Thank you in advance for your participation.

Q1. What is your title? [REQUIRE ANSWER]

- Owner/CEO/President 1
- Manager/Financial Officer 2
- Other (Specify) 3 _____

Q2. May I have your first and last name just in case we have any further questions? [REQUIRE ANSWER]

_____ (1)

Q3. Let me confirm that, based on information we have from Dun & Bradstreet, this is a for-profit company, as opposed to a nonprofit, foundation or government office?

[REQUIRE ANSWER]

- Yes 1
- No 2
- Don't Know 3

[IF THE ANSWER TO QUESTION 3 IS NO OR DON'T KNOW, THEN TERMINATE THE CALL PLEASE GO BACK TO Q2 AND TYPE "DISQUALIFIED" AFTER THE FIRST AND LAST NAME.]

Disqualification statement Thank you for your input; however, based on your answers, it appears that you do not qualify for this survey.

Q4. Let me confirm that, based on the information we have from Dun & Bradstreet, the company's primary line of business is **(READ NAICS WITH CORRESPONDING DESCRIPTIVE TEXT)**

[REQUIRE ANSWER]

- Yes 1
- No 2
- Don't Know 3

Q5. Please SPECIFY your company's Primary Type of work. [REQUIRE ANSWER]

Q6. Is your company **at least 51 percent** owned, managed, and controlled by a woman or women?

[REQUIRE ANSWER]

- Yes 1
- No 2
- Don't Know 3

Q7. Is your company **at least 51 percent** owned, managed, and controlled by a person or people of one of the following racial or ethnic group(s)? [REQUIRE ANSWER]

- Caucasian 1
- Black/African American 2
- Asian American 3
- Hispanic American or Latino 4
- Native American 5
- Other (Specify) 6 _____
- Don't Know 7

Q8. Is your company interested in working with the City as a prime, subcontractor to a prime, or both over the next 12 months or in the near future? [REQUIRE ANSWER]

- Prime 1
- Subcontractor 2
- Both 3
- None of the above 4

That completes our survey. Again, thank you for your input and your participation in this important survey. If you would like more information on the Disparity Study please visit www.cityofnydisparitystudy.com.

**APPENDIX D: Survey of Vendors
Instrument**

DISPARITY STUDY

City of New York



All of these questions will be asked in the introduction.

Hello, my name is _____ and I am calling on behalf of the City of New York, or City, to obtain data on the City's utilization of area businesses in City contracts.

Q1. Is this _____ (*Company's name*)? **IF COMPANY NAME VERIFIED, CONTINUE**

Q2. Are you the owner or an authorized decision maker in your company? **[IF NO]** - May I speak with that person? **[IF NO, SCHEDULE CALL-BACK]?**

IF NO: Is there someone else I can talk to who could answer some questions about the business and procurement activities?

IF OWNER IS PUT ON THE LINE: CONTINUE

IF TRANSFERRED TO ANOTHER PARTY (CFO, MANAGER, ETC): Are you able to answer questions concerning business practices of this company? **IF YES, CONTINUE**

The City has retained MGT Consulting Group (MGT), to conduct a disparity study. **This is not a sales call. Your responses to this research survey will be aggregated for the overall analysis and used only for the disparity study. Individual information is kept confidential.** Your firm has been randomly selected to participate in a survey of businesses to evaluate how the City buys goods and services, the subcontracting practices of prime contractors/vendors who do business with the City, and the anecdotal evidence about doing business or attempting to do business collected from a broad cross section of all interested businesses between **July 1, 2006 and June 30, 2015**. The results of the study will provide the basis, if warranted, for recommendations to improve the City's current procurement programs.

This is a great opportunity for you to provide feedback regarding your experience doing business with or attempting to do business with the City. The survey will only take a few minutes of your time to complete.

Q3. What is your title? [REQUIRE ANSWER]

- Owner 1
- CEO/President 2
- Manager/Financial Officer 3
- Other _____ 4

If Owner or CEO Is Selected, Then Skip To: **Q4.** Please verify their name.

Q3a Are you able to answer questions concerning the ownership and business activities of the company? [REQUIRE ANSWER]

- Yes 1
- No 2 (If No, discontinue survey)

Termination Statement: Your company's input is very important so we request that the survey is completed by a member of management with more knowledge of the establishment and functions of the business. Thank you.

Q4. Please VERIFY your name just in case we have any further questions? [REQUIRE ANSWER]

Contact Name: _____

Q5. What is your company's primary line of business? [REQUIRE ANSWER]

1. **Construction** (*water and sewer line construction, excavating, general contracting, carpentry, site work, electrical, etc.*):
2. **Architecture and Engineering** (*ex. architecture, engineering, civil engineering, environmental engineering, mechanical engineering, etc.*):
3. **Professional Services** (*ex: accounting, legal services, construction management, IT consulting, accountant, consultant, etc.*):
4. **Standard Services** (*ex: maintenance services, janitorial, security, auto repair, etc.*):
5. **Goods** (*commodities, computers, vehicles, furniture, etc.*):
6. **Other**

- [S - IF THE ANSWER TO QUESTION 5 IS 2, THEN SKIP TO QUESTION 7]
- [S - IF THE ANSWER TO QUESTION 5 IS 3, THEN SKIP TO QUESTION 8]
- [S - IF THE ANSWER TO QUESTION 5 IS 4, THEN SKIP TO QUESTION 9]
- [S - IF THE ANSWER TO QUESTION 5 IS 5, THEN SKIP TO QUESTION 10]
- [S - IF THE ANSWER TO QUESTION 5 IS 6, THEN SKIP TO QUESTION 11]

[A - IF THE ANSWER TO QUESTION 5 IS NOT 1, THEN SKIP TO QUESTION 12]

Q6. Please SPECIFY Construction Type

[REQUIRE ANSWER]

[A - IF THE ANSWER TO QUESTION 5 IS NOT 2, THEN SKIP TO QUESTION 12]

Q7. Please SPECIFY Architectural and Engineering Type

[REQUIRE ANSWER]

[A - IF THE ANSWER TO QUESTION 5 IS NOT 3, THEN SKIP TO QUESTION 12]

Q8. Please SPECIFY Professional Services

[REQUIRE ANSWER]

[A - IF THE ANSWER TO QUESTION 5 IS NOT 4, THEN SKIP TO QUESTION 12]

Q9. Please SPECIFY Standard Services Type

[REQUIRE ANSWER]

[A - IF THE ANSWER TO QUESTION 5 IS NOT 5, THEN SKIP TO QUESTION 12]

Q10. Please SPECIFY Goods, Equipment, Supplies

[REQUIRE ANSWER]

[A - IF THE ANSWER TO QUESTION 5 IS NOT 6, THEN SKIP TO QUESTION 12]

Q11. Please SPECIFY Other

[REQUIRE ANSWER]

Q12. Is your company **at least 51 percent** owned, managed, and controlled by a woman or women?

[REQUIRE ANSWER]

- Yes 1
- No 2
- Don't Know 3

Q13. Is your company **at least 51 percent** owned, managed, and controlled by one of the following racial or ethnic groups? [REQUIRE ANSWER]

- White/Caucasian 1
- Black/African American 2
- Asian American 3
- Hispanic American 4
- Native American 5
- Other 6 *Specify:* _____
- Don't Know 7

Q14. What is the highest level of education completed by the primary owner of your company?
[REQUIRE ANSWER]

- Some high school 1
- High school graduate 2
- Trade or technical education 3
- Some college 4
- College degree 5
- Post graduate degree 6
- Don't know 7

Q15. In what year was your company established? _____ [REQUIRE ANSWER]

Q16. How many combined years of experience do you or the primary owner(s) of your firm have in the company's primary line of business? [REQUIRE ANSWER]

- 0 – 5 years 1
- 6 – 10 years 2
- 11 – 15 years 3
- 16 – 20 years 4
- 20 + years 5
- Don't know 6

Q17. In the last three years, what was the average number of employees on your company's payroll, including full-time and part-time staff? [REQUIRE ANSWER]

- 0 - 10 1
- 11 - 20 2
- 21 - 30 3
- 31 - 40 4
- 41+ 5
- Don't know 6

Q18. Which of the following ranges best approximates your company's gross revenues for calendar year 2015? [REQUIRE ANSWER]

- Up to \$50,000? 1
- \$50,001 to \$100,000? 2
- \$100,001 to \$300,000? 3
- \$300,001 to \$500,000? 4
- \$500,001 to \$1 million? 5
- \$1,000,001 to \$3 million? 6
- \$3,000,001 to \$5 million? 7
- \$5,000,001 to \$10 million? 8
- Over \$10 million? 9
- Don't Know 10

Q19. What percentage of these gross revenues was earned from the City, the private sector, and other public government sector projects? (Must total 100%)

The City ____% Private Sector ____% Non-City Public Sector ____%

Q20. Does your company hold any of the following certifications from a recognized certification agency? **Check all that applies.**

- Minority Business Enterprise (MBE) 1
- Local Business Enterprise (LBE) 2
- Woman Business Enterprise (WBE) 3
- Emerging Business Enterprise (EBE) 4
- Other 5 Specify _____
- Don't Know 6

Q21. Does your company bid/quote/propose primarily as a prime contractor/consultant or vendor? Subcontractor/supplier? OR both? [REQUIRE ANSWER]

- Prime Contractor/Consultant or Vendor 1
- Subcontractor/subconsultant or Supplier 2
- Both 3

[A - IF THE ANSWER TO QUESTION 21 IS NOT 1 or 3, THEN SKIP TO QUESTION 35]

Q22. In general, which of the following ranges best approximate your company's largest **prime contract** awarded between *July 1, 2006 and June 30, 2015*?

- None 1
- Up to \$50,000? 2
- \$50,001 to \$100,000? 3
- \$100,001 to \$200,000? 4
- \$200,001 to \$300,000? 5
- \$300,001 to \$400,000? 6
- \$400,001 to \$500,000? 7
- \$500,001 to \$1 million? 8
- Over \$1 million? 9
- Don't Know 10

Q23. In your experience, have any of the following been a barrier to attempting to do work or while working on the City projects as a **prime contractor/vendor**?

[REQUIRE ANSWER TO EACH OF THE FOLLOWING]

	YES (1)	NO (2)	DON'T KNOW (3)
1. Prequalification requirements			
2. Bid bond requirement			
3. Performance/payment bond requirement			
4. Cost of bidding/proposing			
5. Financing			
6. Insurance (general liability, professional liability, etc.)			
7. Price of supplies/materials			
8. Proposal/Bid specifications			
9. Short or limited time given to prepare bid package or quote			
10. Limited knowledge of purchasing contracting policies and procedures			
11. Lack of experience			
12. Lack of personnel			
13. Contract too large			
14. Selection process/evaluation criteria			
15. Too many restrictive contract specifications			
16. Slow payment or nonpayment			
17. Competing with large companies			
18. Changes in the scope of work (after work began)			
19. Meeting MWBE goals or good faith effort requirements			
20. Operating at or near capacity			
21. Ease of identifying MWBE firms through the City's website/online directory			
22. Stringent terms on contracts			
23. Varying terms on contracts by agency			
24. Delayed approval of change orders			

Q24. As a prime contractor/vendor are you required to have bonding? [REQUIRE ANSWER]

- Yes 1
- No 2
- Don't Know 3

[A - IF THE ANSWER TO QUESTION 24 IS NOT 1, THEN SKIP TO QUESTION 27]

Q25. What is your current aggregate bonding capacity? [REQUIRE ANSWER]

- Below \$100,000 1
- \$100,001 to \$250,000 2
- \$250,001 to \$500,000 3
- \$500,001 to \$1,000,000 4
- \$1,000,001 to \$1,500,000 5
- \$1,500,001 to \$3,000,000 6
- \$3,000,001 to \$5,000,000 7
- Over \$ 5 million 8
- Don't know 9

Q26. What is your current single limit bonding capacity? [REQUIRE ANSWER]

- Below \$100,000 1
- \$100,001 to \$250,000 2
- \$250,001 to \$500,000 3
- \$500,001 to \$1,000,000 4
- \$1,000,001 to \$1,500,000 5
- \$1,500,001 to \$3,000,000 6
- \$3,000,001 to \$5,000,000 7
- Over\$ 5 million 8
- Don't know 9

Q27. As a prime contractor/vendor did you experience discriminatory behavior by the City when attempting to work or while working on a project between **July 1, 2006 and June 30, 2015**?
[REQUIRE ANSWER]

- Yes 1
- No 2
- Not Applicable 3
- Don't know 4

[A - IF THE ANSWER TO QUESTION 27 IS NOT 1, THEN SKIP TO QUESTION 35]

Q28. How did you become aware of the discrimination against your company? [REQUIRE ANSWER]

- Verbal Comment 1
- Written Statement/Documents 2
- Action Taken against the Company 3
- Other Actions: 4 *Specify* _____
- Don't Know 5

[A - IF THE ANSWER TO QUESTION 28 IS NOT 4, THEN SKIP TO QUESTION 30]

Q29. Specify DISCRIMINATORY ACTION [REQUIRE ANSWER]

Q30. Which of the following do you consider the primary reason for your company being discriminated against? [REQUIRE ANSWER]

- Owner's race or ethnicity 1
- Owner's gender 2
- Both race and gender 3
- Other Reason: 4 *Specify* _____
- Don't Know 5

[A - IF THE ANSWER TO QUESTION 30 IS NOT 4, THEN SKIP TO QUESTION 32]

Q31. Specify REASON [REQUIRE ANSWER]

Q32. When did the discrimination first occur? [REQUIRE ANSWER]

- During the bidding process 1
- During contract negotiations 2
- After contract award 3
- All of the Above 4
- Don't Know 5

Q33. Did you file a complaint? [REQUIRE ANSWER]

- Yes 1
- No 2
- Don't Know 3

Q34. Are you willing to speak directly to MGT to provide more detail of the alleged discrimination you have experienced by the City or their prime contractor/vendor? [REQUIRE ANSWER]

- Yes 1
- No 2

Q35. In general, which of the following ranges best approximates your company's largest **subcontract** between **July 1, 2006 and June 30, 2015**? [REQUIRE ANSWER]

- None 1
- Up to \$50,000? 2
- \$50,001 to \$100,000? 3
- \$100,001 to \$200,000? 4
- \$200,001 to \$300,000? 5
- \$300,001 to \$400,000? 6
- \$400,001 to \$500,000? 7
- \$500,001 to \$1 million? 8
- Over \$1 million? 9
- Don't Know 10

[A - IF THE ANSWER TO QUESTION 35 IS 1, THEN SKIP TO QUESTION 50]

Q36. In your experience, have any of the following been a barrier when attempting to do work or while working as a subcontractor with primes on projects for the City?

[REQUIRE ANSWER TO EACH OF THE FOLLOWING]

	YES (1)	NO (2)	DON'T KNOW (3)
1. Performance/payment bond requirement			
2. Cost of bidding/proposing			
3. Financing			
4. Insurance (general liability, professional liability, etc.)			
5. Price of supplies/materials			
6. Short or limited time given to prepare bid estimate or quote			
7. Lack of experience			
8. Lack of personnel			
9. Contract too large			
10. Slow payment or nonpayment			
11. Competing with large companies			
12. Solicitation of subcontractor bids after contract award (i.e. bid shopping)			
13. Awarded scope of work reduced or eliminated			
14. Operating at or near capacity			
15. Harsh/unfavorable terms assigned by prime contractors			

Q37. Between *July 1, 2006 and June 30, 2015*, have you ever submitted a bid/quote/proposal with a prime contractor or vendor for a project with the City, were informed that you were the lowest bidder/selected firm, and then found out that another subcontractor was actually doing the work? [REQUIRE ANSWER]

- Yes 1
- No 2
- Don't Know 3

Q38. As a subcontractor, do prime contractors on the City projects require you to have a bond for your type of work? [REQUIRE ANSWER]

- Yes 1
- No 2
- Don't know 3

Q39. As a subcontractor did you experience discriminatory behavior between **July 1, 2006 and June 30, 2015** from a prime contractor/vendor working or bidding/proposing on a City project?
[REQUIRE ANSWER]

- Yes 1
- No 2
- Not Applicable 3
- Don't know 4

[A - IF THE ANSWER TO QUESTION 39 IS NOT 1, THEN SKIP TO QUESTION 47]

Q40. How did you become aware of the discrimination against your company? [REQUIRE ANSWER]

- Verbal Comment 1
- Written Statement/Documents 2
- Action Taken against the Company 3
- Other Actions: 4 *Specify* _____
- Don't Know 5

[A - IF THE ANSWER TO QUESTION 40 IS NOT 4, THEN SKIP TO QUESTION 42]

Q41. Specify DISCRIMINATORY ACTION [REQUIRE ANSWER]

Q42. Which of the following do you consider the primary reason for your company being discriminated against? [REQUIRE ANSWER]

- Owner's race or ethnicity 1
- Owner's gender 2
- Both race and gender 3
- Other Reason: 4 *Specify* _____
- Don't Know 5

[A - IF THE ANSWER TO QUESTION 42 IS NOT 4, THEN SKIP TO QUESTION 44]

Q43. Specify REASON [REQUIRE ANSWER]

Q44. When did the discrimination first occur? [REQUIRE ANSWER]

- During the bidding process 1
- During contract negotiations 2
- After contract award 3
- All of the Above 4
- Don't Know 5

Q45. Did you file a complaint? [REQUIRE ANSWER]

- Yes 1
- No 2
- Don't Know 3

Q46. Are you willing to speak directly to MGT to provide more detail of the alleged discrimination you have experienced by the City's prime contractor/vendor? [REQUIRE ANSWER]

- Yes 1
- No 2

Q47. Have you experienced or observed a situation in which a prime contractor/vendor includes minority or woman subcontractors on a bid or proposal to satisfy the "good faith effort" requirements, and then drops the company as a subcontractor after winning the award for no legitimate reason? [REQUIRE ANSWER]

City Project			Non-City Project		
<input type="radio"/> Yes (1)	<input type="radio"/> No (2)	<input type="radio"/> DK* (3)	<input type="radio"/> Yes (1)	<input type="radio"/> No (2)	<input type="radio"/> DK* (3)

*DK means Don't Know

Q48. Still talking about prime contractors/consultants or vendors, while doing business or attempting to do business, have you experienced any of the following as a form of discrimination:
[REQUIRE ANSWER]

	Yes (1)	No (2)	Don't Know (3)
1. Harassment			
2. Unequal or unfair treatment			
3. Bid shopping or bid manipulation			
4. Double standards in performance			
5. Denial of opportunity to bid			
6. Unfair denial of contract award			
7. Unfair termination			
8. Unequal price quotes from suppliers			

Q49. How often do prime contractors/vendors who use your firm as a subcontractor on public-sector projects with M/WBE goals solicit your firm on projects (private or public) without M/WBE goals?
[REQUIRE ANSWER]

- Very Often 1
- Sometimes 2
- Seldom 3
- Never 4
- Not Applicable 5
- Don't know 6

Q50. Has your company applied for a commercial (business) bank loan or line of credit between **July 1, 2006 and June 30, 2015**? [REQUIRE ANSWER]

- Yes 1
- No 2
- Don't know 3

[A - IF THE ANSWER TO QUESTION 50 IS NOT 1, THEN SKIP TO QUESTION 53]

Q51. Were you approved or denied for a commercial (business) bank loan or line of credit?
[REQUIRE ANSWER]

- Approved 1
- Denied 2
- Don't Know 3

[A - IF THE ANSWER TO QUESTION 51 IS NOT 1, THEN SKIP TO QUESTION 53]

Q52. What was the highest amount of commercial bank loan your company received?
[REQUIRE ANSWER]

- Up to \$50,000? 1
- \$50,001 to \$100,000? 2
- \$100,001 to \$300,000? 3
- \$300,001 to \$500,000? 4
- \$500,001 to \$1,000,000? 5
- \$1,000,001 to \$3,000,000? 6
- \$3,000,001 to \$5,000,000? 7
- \$5,000,001 to \$10,000,000? 8
- Over \$10 million? 9
- No Response/Don't Know 10

The following questions are related to work you have done or attempted to do in the **private sector** marketplace. Private sector is defined as non-government businesses or companies.

Q53. For the following statement, please indicate whether you: Agree, Neither Agree or Disagree, Disagree. [REQUIRE ANSWER]

There is an informal network of prime contractors/vendors and subcontractors that has excluded my company from doing business in the private sector: [REQUIRE ANSWER]

- Somewhat Agree 1
- Neither Agree Nor Disagree 2
- Strongly Disagree 3
- Don't know 4

Q54. Have you experienced discriminatory behavior when attempting to do work or working in the private sector between **2006 and 2015**? [REQUIRE ANSWER]

- Yes 1
- No 2
- Do not work in the private sector 3
- Don't Know 4

[A - IF THE ANSWER TO QUESTION 54 IS NOT 1, THEN SKIP TO END OF SURVEY]

Q55. How did you become aware of the discrimination against your company? [REQUIRE ANSWER]

- Verbal comment 1
- Written statement 2
- Action taken against company 3
- Other Action 4 *Specify* _____
- Don't Know 5

[A - IF THE ANSWER TO QUESTION 55 IS NOT 4, THEN SKIP TO QUESTION 57]

Q56. Specify DISCRIMINATORY ACTION [REQUIRE ANSWER]

Q57. Which of the following do you consider the primary reason for your company being discriminated against in the private sector? [REQUIRE ANSWER]

- Owner's race or ethnicity 1
- Owner's gender 2
- Both 3
- Other Reason 4 *Specify* _____
- Don't know 5

[A - IF THE ANSWER TO QUESTION 57 IS NOT 4, THEN SKIP TO QUESTION 59]

Q58. Specify REASON [REQUIRE ANSWER]

Q59. When did the discrimination first occur? [REQUIRE ANSWER]

- During bidding process 1
- During contract negotiations 2
- After contract award 3
- All of the Above 5
- Don't know 6

Q60. Are you willing to speak directly to MGT to provide more detail of the alleged discrimination you have experienced by in the private sector? [REQUIRE ANSWER]

- Yes 1
- No 2

That completes the survey. On behalf of the City of New York Department of Small Business Services, thank you for your participation in this interview. If you have any questions or would like more information about the disparity study, please visit www.cityofnydisparitystudy.com.

APPENDIX E: Focus Group Guide

DISPARITY STUDY

City of New York



**New York City Disparity Study
Focus Group Guide/Questions**

We will begin with introductions. Why don't you start and we will work around the room? State your name, company name, your primary line of business, how long you have been in business, and anything else you'd like us to know about you.

We are very glad that you are all here and appreciate you taking time out of your busy day to participate in this very important meeting.

We will take notes throughout the session. In addition, we would like to record this session to ensure we accurately capture this discussion. The recordings are maintained by MGT and will be held in strict confidence, and will not be distributed to any other firm or person with your firm's identity revealed. However, in the case of a court order, all documentation may be turned over to the court. Are there any objections to recording this focus group?

The Process

The recordings and notes of these focus groups will be summarized as part of the qualitative data collection. Individual names will not be identified nor will remarks or comments be attributed to a specific individual. Once all the analyses for the focus group are completed, the results will be aggregated and incorporated with other qualitative data from the study. These findings will be used in reviewing the City's procurement practices, procurement environment, and M/WBE Program.

We want everyone to feel free to participate and to add as much insight as possible. We have ample time, so feel free to contribute to the discussion as we go along.

A. Discussion Questions – Construction Primes

1. Please discuss how you get information about the City's procurement opportunities (such as, the City's website, private bid notification websites, networking/word-of-mouth, etc.). Is this information helpful?
2. What business assistance services provided by the City have you used? What were the services? Did you find the services helpful? Please explain why and how.
3. Have you submitted a bid, proposal, or quote to the City?
 - a. If so, how many times have you submitted a bid, proposal or quote to the City?
 - b. What was the outcome of your submission?
 - i. Did you win and were you awarded a contract?
 - ii. Did you follow up on the outcome of your bid/proposal/quote?
 - c. Was the City helpful in providing you with complete and accurate information to prepare a responsive bid, proposal, or quote?
4. What percentage of your firm's revenue is generated through contracts from other public sector agencies? From the private sector marketplace?
 - a. With what other public agencies have you been awarded a contract?
 - b. With what private sector entities have you been awarded a contract?
5. If you have been awarded a contract with the City, on a scale from 1 to 5 (1 being Extremely Negative to 5 being Extremely Positive), rate your experience in doing business with the City as a prime.
 - a. *Be sure that the responses identify their experience (such as the name of the project, type of project, etc.). Also, be sure that the respondent explains the reason for his/her rating.*
6. Discuss why you believe you were successful in winning a City contract?
7. If you have not been awarded a contract with the City, please discuss why you feel you have not.

8. What barriers do you feel most interferes with your ability to do business with the City?
(Listen for barriers below or ask about them)
- MWBE status (*explain*)
 - Prequalification requirements
 - Bid bond requirement
 - Performance/payment bond requirement
 - Cost of bidding/proposing
 - Financing
 - Insurance (general liability, professional liability, etc.)
 - Price of supplies/materials
 - Bid specifications
 - Limited time given to prepare bid or quote
 - Lack of experience
 - Contract too large
 - Selection process
 - MWBE goals (*explain*)
 - Slow payment or nonpayment
 - Competing with large companies
9. Have you experienced discrimination when bidding on City contracts or after being awarded a contract? If yes:
- a. Explain the extent of discrimination experienced.
 - b. What do you think is the basis of the discrimination, i.e. gender, race, etc.
10. Please discuss procurement processes in the private sector that should be considered by the City to increase your likelihood of winning a City contract.
11. What are your thoughts, if any, about there being an informal network of prime contractors/businesses and subcontractors?
- a. Do you feel that such a network has prevented your company from doing business in the public sector? Why or why not?
 - b. In the private sector? Why or why not?"

12. As primes, what aspects of the City's MWBE Program do you like, don't like, or would like to see changed?

13. How could the City improve its procurement policies and practices to advance equity in contracting and procurement that would enable more businesses to participate on City projects? (*Listen for specific recommendations*)

B. Discussion Questions – Construction Subcontractors

1. Please discuss how you get information about the City's procurement opportunities (such as, the City's website, solicitations from primes, private bid notification websites, networking/word-of-mouth, etc.). Is this information helpful?
2. What business assistance services provided by the City have you used? What were the services? Did you find the services helpful? Please explain why and how.
3. Have you submitted bids, proposals, or quotes to the City?
 - a. How many times have you submitted a bid, proposal or quote to a prime on a City project?
 - b. What was the outcome of your submission?
 - i. Were you awarded a subcontract?
 - ii. Were you notified if the prime won or lost the bid?
 - c. Did you follow up on the outcome of your bid, proposal, or quote?
 - d. Was the prime helpful in providing you complete and accurate information to prepare a responsive bid or quote?
4. What percentage of your firm's revenue is generated from subcontracts on other public sector agencies projects? From the private sector marketplace?
 - a. With what other public agencies have you worked?
 - b. With what private sector entities have you worked?
5. If you have been awarded a subcontract on a City project, on a scale from 1 to 5 (*1 being Extremely Negative to 5 being Extremely Positive*), rate your experience in doing business with the prime.
 - a. *Be sure that the responses identify their experience (such as the name of the project, type of project, etc.). Also, be sure that the respondent explains the reason for his/her rating.*
6. Discuss why you believe you were successful in winning a subcontract on a City project?
7. If you have not been awarded a subcontract with a prime on a City project, please discuss why you believe you have not.

8. What barriers do you feel most interferes with your ability to do business with a prime on a City project? (*Listen for barriers below or ask about them*)
 - MWBE status (*explain*)
 - Bid bond requirement
 - Performance/payment bond requirement
 - Bid shopping
 - Financing
 - Insurance (general liability, professional liability, etc.)
 - Price of supplies/materials
 - Limited time given to prepare bid or quote
 - Lack of experience
 - Contract too large
 - MWBE goals (*explain*)
 - Slow payment or nonpayment
 - Competing with large companies

9. Have you experienced discrimination when bidding with a prime on City projects or after being awarded a subcontract? If yes:
 - a. Explain the extent of discrimination experienced.
 - b. What do you think is the basis of the discrimination, i.e. gender, race, etc.

10. Please discuss subcontracting procurement processes in the private sector that should be considered by the City to increase your likelihood of working on a City project.

11. Do you feel there is an informal network of subcontractors that has excluded your company from doing business in the public sector? Private sector?

12. As subcontractors, what aspects of the City's MWBE Program do you like, don't like, or would like to see changed?

13. How could the City improve its procurement policies and practices to advance equity in contracting and procurement that would enable more businesses to participate on City projects? (*Listen for specific recommendations*)

C. Discussion Questions – All Other (non-Construction) Primes

1. Please discuss how you get information about the City's procurement opportunities (such as, the City's website, private bid notification websites, networking/word-of-mouth, etc.). Is this information helpful?
2. What business assistance services provided by the City have you used? What were the services? Did you find the services helpful? Please explain why and how.
3. Have you submitted bids, proposals, or quotes to the City?
 - a. If so, how many times have you submitted a bid, proposal or quote to the City?
 - b. What was the outcome of your submission?
 - i. Did you win and were you awarded a contract?
 - ii. Did you follow up on the outcome of your bid/proposal/quote?
 - c. Was the City helpful in providing you with complete and accurate information to prepare a responsive bid, proposal, or quote?
4. What percentage of your firm's revenue is generated through contracts from other public sector agencies? From the private sector marketplace?
 - a. With what other public agencies have you been awarded a contract?
 - b. With what private sector entities have you been awarded a contract?
5. If you have been awarded a contract with the City, on a scale from 1 to 5 (1 being Extremely Negative to 5 being Extremely Positive), rate your experience in doing business with the City as a prime.
 - a. *Be sure that the responses identify their experience (such as the name of the project, type of project, etc.). Also, be sure that the respondent explains the reason for his/her rating.*
6. Discuss why you believe you were successful in winning a City contract?
7. If you have not been awarded a contract with the City, please discuss why you feel you have not.

8. What barriers do you feel most interferes with your ability to do business with the City?
(*Listen for barriers below or ask about them*)
- MWBE status (*explain*)
 - Prequalification requirements
 - Cost of bidding/proposing
 - Financing
 - Insurance (general liability, professional liability, etc.)
 - Proposal/Bid specifications
 - Limited time given to prepare bid package or quote
 - Multi-year prime contracts
 - Lack of experience
 - Contract too large
 - Selection process
 - MWBE goals (*explain*)
 - Slow payment or nonpayment
 - Competing with large companies
9. Have you experienced discrimination when bidding/proposing/quoting on City contracts or after being awarded a contract? If yes:
- a. Explain the extent of discrimination experienced.
 - b. What do you think is the basis of the discrimination, i.e. gender, race, etc.
10. Please discuss procurement processes in the private sector that should be considered by the City to increase your likelihood of winning a City contract.
11. Do you feel there is an informal network of prime contractors/businesses and subcontractors that has prevented your company from doing business in the public sector? Private sector?
12. As primes, what aspects of the City's MWBE Program do you like, don't like, or would like to see changed?
13. How could the City improve its procurement policies and practices to advance equity in contracting and procurement that would enable more businesses to participate on City projects? (*Listen for specific recommendations*)

D. Discussion Questions – All Other (non-Construction) Subcontractors

1. Please discuss how you get information about the City's procurement opportunities (such as, the City's website, solicitations from primes, private bid notification websites, networking/word-of-mouth, etc.). Is this information helpful?
2. What business assistance services provided by the City have you used? What were the services? Did you find the services helpful? Please explain why and how.
3. Have you submitted bids, proposals, or quotes to the City?
 - a. How many times have you submitted a bid, proposal or quote to a prime on a City project?
 - b. What was the outcome of your submission?
 - i. Were you awarded a subcontract?
 - ii. Were you notified if the prime won or lost the bid?
 - c. Did you follow up on the outcome of your bid, proposal, or quote?
 - d. Was the prime helpful in providing you complete and accurate information to prepare a responsive bid or quote?
4. What percentage of your firm's revenue is generated from subcontracts on other public sector agencies projects? From the private sector marketplace?
 - a. With what other public agencies have you worked?
 - b. With what private sector entities have you worked?
5. If you have been awarded a subcontract with a prime on a City project, on a scale from 1 to 5 (*1 being Extremely Negative to 5 being Extremely Positive*), rate your experience in doing business with the prime.
 - a. *Be sure that the responses identify their experience (such as the name of the project, type of project, etc.). Also, be sure that the respondent explains the reason for his/her rating.*
6. Discuss why you believe were successful in winning a subcontract on a City project?
7. If you have not been awarded a subcontract with a prime on a City project, please discuss why you believe you have not.

8. What barriers do you feel most interferes with your ability to do business with a prime on a City project? (*Listen for barriers below or ask about them*)
- MWBE status (*explain*)
 - Prequalification requirements
 - Bid shopping
 - Financing
 - Insurance (general liability, professional liability, etc.)
 - Price of supplies/materials
 - Limited time given to prepare bid, proposal, or quote
 - Lack of experience
 - Contract too large
 - MWBE goals (*explain*)
 - Slow payment or nonpayment
 - Competing with large companies
9. Have you experienced discrimination when bidding with a prime on City projects or after being awarded a subcontract? If yes:
- a. Explain the extent of discrimination experienced.
 - b. What do you think is the basis of the discrimination, i.e. gender, race, etc.
10. Please discuss subcontracting procurement processes in the private sector that should be considered by the City to increase your likelihood of working on a City project.
11. Do you feel there is an informal network of subcontractors that has excluded your company from doing business in the public sector? Private sector?
12. As subcontractors, what aspects of the City's MWBE Program do you like, don't like, or would like to see changed?
13. How could the City improve its procurement policies and practices to advance equity in contracting and procurement that would enable more businesses to participate on City projects? (*Listen for specific recommendations*)

APPENDIX F: In-depth Interview Guide
DISPARITY STUDY

City of New York



READ: *The purpose of this interview is to gather information on your experiences, perceptions, and points of view on doing business or attempting to do business with the City of New York (City), its prime contractors/vendors, and the private sector. Your responses and comments should focus on the period between July 1, 2006 and June 30, 2015. At the conclusion of the interview you will be asked to sign an Affidavit attesting to the fact the information you have provided was given freely and represents an accurate reflection of your experiences doing business or attempting to do business with the City or its primes. Please note that all interviews are confidential—responses to the interviews will be aggregated and summarized and any remarks or comments made during the interview will not be attributed to any individual respondent.*

The City of New York manages three business inclusion programs: the MWBE Program includes African American, Asian American, Hispanic American, and Nonminority Women, the EBE Program includes business owners that are identified as socially and economically disadvantaged, and the LBE Program includes any firm that meets City’s local and size requirements.

By participating in this interview, you acknowledge that:

- *The qualitative input you will provide is given freely and represents an accurate reflection of your experiences doing business or attempting to do business with the City of New York and/or its primes.*
- *You have not been coerced or received any remuneration for your comments.*
- *You understand that your name or firm name will not be published in the report or provided to City of New York.*
- *That your participation in this interview has no known risks or direct benefits to you or your firm.*

The reference to “primes” in this interview refers to firms that have received, bid on, or submitted proposals directly to the City.

Q1. Please **specify** your company’s primary line of business? *(Try to get a good feel for what they do.)*

1. **Construction** *(water and sewer line construction, excavating, general contracting, construction management, carpentry, site work, electrical, etc.) Specify_____*
2. **Architecture and Engineering** *(architecture, engineering, civil engineering, environmental engineering, mechanical engineering, etc.) Specify _____*
3. **Professional Services** *(accounting, legal services, IT consulting, etc.) Specify_____*
4. **Standardized Services** *(security, janitorial services, auto repair, maintenance services, landscaping, etc.) Specify_____*
5. **Goods, Equipment, Supplies** *(commodities, computers, vehicles, furniture, etc.) Specify_____*
6. **Other:** *Specify_____*

Q2. How many combined years of experience do you or the primary owner(s) of your firm have in your primary line of business?

- 0 – 5 years 1
- 6 – 10 years 2
- 11 – 15 years 3
- 16 – 20 years 4
- 20 + years 5

Q3. Between **July 1, 2006 and June 30, 2015**, what was the average number of employees on your company’s payroll, including full-time and part-time staff?

- 0 - 10 1
- 11 - 20 2
- 21 - 30 3
- 31 - 40 4
- 41+ 5

Q4. Is **at least 51%** of your company woman-owned and controlled?

- Yes 1
- No 2
- Don’t Know 3

Q5. Is **at least 51%** of the company owned and controlled by one of the following racial or ethnic groups?

[Get as much detail as possible.]

- White/Caucasian 1
- Black/African American 2
- Asian American 3
- Hispanic American 4
- Native American 5
- Other 6 *Specify:* _____
- Don't Know 7

Q6. In what year was your business established or purchased by the most recent owner(s)?

Q7. Does your company bid/quote/propose primarily as a prime contractor/consultant or vendor? Subcontractor? OR both?

- Prime Contractor/Consultant or Vendor 1
- Subcontractor or subconsultant 2
- Both 3

Q8. Have you ever submitted a bid, quote, or proposal with the City or on a City contract?

Q8a. Have you won a contract with City as a prime or sub?

Q8b. What bid or proposal requirement was a barrier to successfully winning the bid or proposal?

Q9. How do you find out about opportunities to quote, bid, or propose on City projects? *For example, do you use their website, attend Procurement Fairs, are you contacted by the City or primes, etc.?*

Q9a. Give specifics on the effectiveness of the methods you indicated.

Q10. Which of the following categories best approximates your company's gross revenues for calendar year **2015**?

- Up to \$50,000? 1
- \$50,001 to \$100,000? 2
- \$100,001 to \$300,000? 3
- \$300,001 to \$500,000? 4
- \$500,001 to \$1 million? 5
- \$1,000,001 to \$3 million? 6
- \$3,000,001 to \$5 million? 7
- \$5,000,001 to \$10 million? 8
- Over \$10 million? 9
- Don't Know 10

Q11. What percentage of these gross revenues was earned from the City, the private sector, and other public government sector projects? (Must total 100%)

- City _____%
- Private Sector _____%
- Other Public Sector _____%

Q12. Does your company hold any of the following certifications with the City? (*Check all that apply.*)

	Yes (1)	No (2)	Don't Know (3)
1. Minority Business Enterprise (MBE)			
2. Locally Based Enterprise (LBE)			
3. Woman Business Enterprise (WBE)			
4. Disadvantaged Business Enterprise (DBE)			
5. Emerging Business Enterprise (EBE)			
6. Don't Know			
7. None			

IF INTERVIEWEE IS A PRIME:

Q13. Has your City-MWBE, EBE, or LBE certification assisted your firm in winning contracts?

Q13a. If so, how has certification assisted your firm?

Q14. In the last five years, indicate a range of the number of times you have been awarded a contract or purchase order with the City as a prime contractor/consultant or vendor?

- None 1
- 1-10 times 2
- 11-25 times 3
- 26-50 times 4
- 51-100 times 5
- Over 100 times 6
- Don't Know 7

Q15. Have you ever protested a bid, proposal, or contract awarded by any of the City?

- Yes 1
- No 2
- Don't Know 3

15a. If yes, please provide as much detail as possible on why and the results.

Q16. In your experience, have any of the following been a barrier to attempting to do work or working on any of the City projects as a **prime contractor/consultant or vendor**:

	Yes (1)	No (2)	Don't Know (3)	Not Applicable (4)
1. Prequalification requirements				
2. Bid bond requirement				
3. Performance/payment bond requirement				
4. Cost of bidding/proposing				
5. Financing				
6. Insurance (general liability, professional liability, etc.)				
7. Price of supplies/materials				
8. Proposal/Bid specifications				
9. Short or limited time given to prepare bid package or quote				
10. Limited knowledge of purchasing contracting policies and procedures				
11. Lack of experience				
12. Lack of personnel				
13. Contract too large				
14. Selection process/evaluation criteria				
15. Unnecessary restrictive contract specifications				
16. Slow payment or nonpayment				
17. Competing with large companies				
18. Changes in the scope of work (after work began)				
19. Meeting MWBE goals or good faith effort requirements				
20. Ease of identifying MWBE firms through the City website/online directory				
21. Stringent terms on contracts				
22. Varying terms on contracts by agency				
23. Delayed approval of change orders				

Q16a. Please explain why the items you selected are barriers.

Q17. As an MWBE prime, do you believe you are receiving fair treatment once you are awarded the contract/purchase order and performing work on the project?

- Yes 1
- No 2
- Don't Know 3
- Not Applicable 4

Q18. As a prime contractor/consultant or vendor did you experience discriminatory behavior by any of the City staff when attempting to do work or working on their projects between **2006** and **2015**?

- Yes 1
- No 2
- Don't Know 3

Q18a. If yes, explain how you felt you were discriminated against and why? *(Ask if they have documented evidence to support their response)*

Q18b. Did you file a complaint? If so, what was the result?

Q18c. If not, why?

Q19. Has the City's MWBE Program impacted your firm's ability to win contracts?

- Yes 1
- No 2
- Don't Know 3

Q19a. If so, how have the Programs impacted your business?

IF INTERVIEWEE IS A SUBCONTRACTOR

Q20. Between **2006** and **2015**, indicate a range of the number of times you have been awarded a subcontract or purchase order with primes on City projects or contracts.

- None
- 1-10 times
- 11-25 times
- 26-50 times
- 51-100 times
- Over 100 times
- Don't Know

Q21. As an MWBE subcontractor, do you believe you are receiving fair treatment once you are awarded a contract/purchase order and are performing at the approved worksite?

- Yes 1
- No 2
- Don't Know 3
- Not Applicable 4

Q22. How often do prime contractors/consultants or vendors use your firm to satisfy the City's bid or proposal requirements then not utilize your services once their contract has been awarded?

- Very Often 1
- Sometimes 2
- Seldom 3
- Never 4
- Don't know 5

Q23. Between **2006 and 2015**, have you ever submitted a bid with a prime contractor for a project with the City, were informed that you were the lowest bidder, and then found out that another subcontractor was actually doing the work?

- Yes 1
- No 2
- Don't Know 3

Q23a. If yes, please provide details on what happened.

Q24. As a subcontractor, did you experience discriminatory behavior between **2006 and 2015** from a prime contractor/consultant or vendor when attempting to do work or working on any of the City's' projects?

- Yes 1
- No 2
- Don't Know 3

Q24a. If yes, explain how you felt you were discriminated and why? (*Ask if they have documented evidence to support their response*)

Q24b. Did you file a complaint? If so, what was the result?

Q24c. If not, why?

Q25. In your experience, have any of the following been a barrier to attempting to work or working on projects as a subcontractor with primes on any the City projects:

	Yes (1)	No (2)	Don't Know (3)	Not Applicable (4)
1. Performance/payment bond requirement				
2. Cost of bidding/proposing				
3. Financing				
4. Insurance (general liability, professional liability, etc.)				
5. Price of supplies/materials				
6. Short or limited time given to prepare bid estimate or quote				
7. Lack of experience				
8. Lack of personnel				
9. Contract too large				
10. Slow payment or nonpayment				
11. Competing with large companies				
12. Solicitation of subcontractor bids after contract award (i.e. bid shopping)				
13. Awarded scope of work changed, reduced, or eliminated				
14. Operating at or near capacity				
15. Harsh/unfavorable terms assigned by primes				

Q25a. Please explain why you think the items you selected are barriers.

Q26. Do you feel there is an informal network of prime contractors or vendors that has excluded your company from doing business in the private sector?

- Yes 1
- No 2

Q27. How often do prime contractors/consultants or vendors who use your firm as a subcontractor on public-sector projects with MWBE goals solicit your firm on projects (private or public) without MWBE goals?

- Very Often 1
- Sometimes 2
- Seldom 3
- Never 4
- Don't know 5

Q28. As a subcontractor did you experience discriminatory behavior between **2006 and 2015** from a prime contractor/consultant or vendor when attempting to do work or working in the private sector?

- Yes 1
- No 2
- Don't Know 3

Q28a. If yes, explain how you felt you were discriminated and why?

ALL INTERVIEWEES

Q29. Have you experienced or observed a situation in which a prime contractor/consultant or vendor includes minority or woman subcontractors on a bid or proposal to satisfy the “good faith effort” requirements, and then drops the company as a subcontractor after winning the award for no legitimate reason?

- Yes 1
- No 2

Q29a. If yes, please provide details on what you experienced or observed.

Q30. Do you have any recommendations on how the City can improve the tracking and utilization of MWBEs on City projects and purchases?

Q31. In your opinion, what are the biggest obstacles faced by MWBE businesses in securing contracts with any of the City or the City's prime contractors/vendors? Please specify the obstacles.

Q32. Have you experienced access to capital as being an impediment to securing contracts with the City or subcontracts on the City's projects?

- Yes 1
- No 2

Q32a. If yes, describe how?

Q33. Have you experienced bonding as being an impediment to securing contracts with the City or subcontracts on the City's projects?

- Yes 1
- No 2

Q33a. If yes, describe how?

Q34. Have you applied for financial assistance through any of the City's lending programs?

- Yes 1
- No 2

Q34a. If yes, which program did you apply for?

Q34b. What was the outcome of your application?

Q35. Is there anything that we have not covered that you feel will be helpful to this study?

- Yes 1
- No 2

Q35a. If yes, please explain.

APPENDIX G: Private Sector Analysis

DISPARITY STUDY

City of New York



G.1 INTRODUCTION

This chapter focuses on our investigation of utilization of M/WBEs in the private sector, using two specific sources of data to address the following research questions:

- ◆ 2012 Census Survey of Business Owners (SBO) data, which are used to determine:
 1. *Do marketplace disparities exist in the private sector within the five procurement categories?*
- ◆ 2015 Census American Community Survey (ACS) Public Used Microdata Sample (PUMS) data, which are used to determine:
 2. *Are racial, ethnic, and gender minority groups less likely than nonminority males (non-M/WBEs) to be self-employed?*
 3. *Does racial, ethnic, and gender status have an impact on self-employed individuals' earnings?*

APPENDIX SECTIONS



- G.1 Introduction
- G.2 Private Sector Disparities in SBO Census Data
- G.3 Analysis of Race, Ethnicity, and Gender Effects on Self-Employment Rates
- G.4 Conclusion

G.2 PRIVATE SECTOR DISPARITIES IN SBO CENSUS DATA

To answer question #1 above, as to whether these disparities exist in procurement categories relevant to the City's contracting domain, MGT obtained and analyzed U.S. Census Bureau's 2012 Survey of Business Owners (SBO) data.¹⁶⁸ SBO provides data on economic and demographic characteristics for businesses and business owners by geography (such as states and metropolitan areas), categorized by industries defined by North American Industry Classification System (NAICS) codes, and supporting information including firm receipts (sales),¹⁶⁹ firm employment size, and business ownership classification. The survey has been administered every five years since 1972 as part of the economic census.

The SBO gathers and reports data on (1) firms with paid employees, including workers on the payroll (employer firms), and (2) firms without paid employees, including sole proprietors and partners of unincorporated businesses that do not have any other employees on the payroll (non-employer firms), as well as (3) in aggregate across all firms. MGT calculated private sector disparity indices to examine whether M/WBE firms in any of these categories received a proportionate share of firm sales based on the availability of minority and women-owned firms, measured consistently with public sector availability presented in **Chapter 4**, as the number of classified firms divided by the total universe. Disparity indices were examined for all firms and employer firms.

SBO data were collected at the two-digit NAICS code level for the 13-county market area. This does not offer the necessary level of granularity to recreate the precise procurement categories used for the

¹⁶⁸ These represent the most recent available data provided through the SBO program and were released in 2016.

¹⁶⁹ Sales include total shipments, receipts, revenue, or business done by the firm.

public sector analysis, so approximate categories were derived using the best available assignments to approximate the public sector analyses. These assignments were as follows:

- ◆ Construction
 - NAICS code: 23 (Construction)
- ◆ Professional Services, including Architecture & Engineering
 - NAICS codes: 52 (Finance and Insurance), 54 (Professional, Scientific, and Technical Services), 55 (Management of Companies and Enterprises), and 61 (Educational Services)
- ◆ Standardized Services
 - NAICS codes: 21 (Mining) 48, 49 (Transportation and Warehousing), 51 (Information), 56 (Administrative and Support and Waste Management and Remediation Services), 71 (Arts, Entertainment, and Recreation), and 72 (Accommodation and Food Services)
- ◆ Good or Commodities
 - NAICS codes: 31, 32, 33 (Manufacturing), 42 (Wholesale Trade), 44, and 45 (Retail Trade)

Tables G-1 through **G-4** show the measures of private sector disparities resulting from this analysis. Data are analyzed by race, ethnicity, and gender for each of the approximated procurement categories. The following definitions are provided to provide further context for the findings and presentation of data.

- ◆ **M/WBE Firms.** In this analysis, businesses classifications as minority- and female-owned firms (M/WBE) are firms that are at least 51 percent owned and controlled by members of one of five groups: African Americans, Hispanic Americans, Asian Americans, Native Americans, and nonminority women. These groups were defined according to the United States (U.S.) Census Bureau as follows:
 - African Americans: U.S. citizens or lawfully admitted permanent residents having an origin in any of the black racial groups of Africa.
 - Hispanic Americans: U.S. citizens or lawfully admitted permanent residents of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish or Portuguese cultures or origins regardless of race.
 - Asian Americans: U.S. citizens or lawfully admitted permanent residents who originate from the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands.
 - Native Americans: U.S. citizens or lawfully admitted permanent residents who originate from any of the original peoples of North America and who maintain cultural identification through tribal affiliation or community recognition.
 - Women-owned: Consists of all women-owned and equally-women/male-owned firms as indicated in the SBO survey.
- ◆ **Non-M/WBE Firms.** Firms that were identified as nonminority male majority-owned were classified as non-M/WBE firms. If there was no indication of business ownership, these firms were also classified as non-M/WBE firms.
- ◆ **Sales.** Sales include total shipments, receipts, revenue, or business done by the firm.

- ◆ **Disparity Index.** Disparity index is the ratio of the percentage of sales to percentage of available firms multiplied by 100.00. A disparity index below 80.00 indicates a substantial level of disparity.
- ◆ **BOLD** is statistical significant at 95% confidence interval.

CONSTRUCTION

Table G-1 shows the availability, sales, and disparity results for Construction. There were 129,853 Construction firms (all firms¹⁷⁰) in 2012, of which 47.53 percent were owned by minorities and 16.73 percent were women-owned.

- ♦ African American firms (disparity index 7.55) were substantially underutilized, accounting for 9.56 percent of all firms and 0.72 percent of sales.
- ♦ Asian American firms (disparity index 12.65) were substantially underutilized, accounting for 17.32 percent of all firms and 2.19 percent of sales.
- ♦ Hispanic American firms (disparity index 12.92) were substantially underutilized, accounting for 19.84 percent of all firms and 2.56 percent of sales.
- ♦ Native American firms (disparity index 3.89) were substantially underutilized, accounting for 0.80 percent of all firms and 0.03 percent of sales.
- ♦ Total Women-owned firms (disparity index 49.77) were substantially underutilized, accounting for 16.73 percent of all firms and 8.33 percent of sales.

As a subset of these, there were 32,919 Construction employer firms¹⁷¹ in 2012, of which 16.16 percent were owned by minorities and 13.23 percent were women-owned.

- ♦ African American firms (disparity index 28.67) were substantially underutilized, accounting for 1.72 percent of employer firms and 0.49 percent of sales.
- ♦ Asian American firms (disparity index 30.95) were substantially underutilized, accounting for 5.99 percent of employer firms and 1.85 percent of sales.
- ♦ Hispanic American firms (disparity index 22.16) were substantially underutilized, accounting for 8.29 percent of employer firms and 1.84 percent of sales.
- ♦ Total Women-owned firms (disparity index 61.01) were substantially underutilized, accounting for 13.23 percent of employer firms and 8.07 percent of sales.
- ♦ Data for Native American firms were limited; therefore, private sector disparities were not calculated.

¹⁷⁰ All firms include firms with and without payroll at any time during 2012.

¹⁷¹ Employer firms include firms with payroll at any time during 2012.

TABLE G-1
PRIVATE SECTOR CENSUS DISPARITIES: CONSTRUCTION
U.S. CENSUS 2012 SURVEY OF BUSINESS OWNERS, RELEVANT MARKET AREA

BUSINESS OWNERSHIP CLASSIFICATION	ALL FIRMS (#)	ALL FIRMS, SALES (\$1,000)	EMPLOYER FIRMS (#)	EMPLOYER FIRMS SALES (\$1,000)
Total Firms	129,853	\$75,075,968	32,919	\$71,458,818
African American Firms	12,419	\$542,302	565	\$351,661
Native American Firms	1,040	\$23,374	54	S
Asian American Firms	22,497	\$1,645,754	1,971	\$1,324,098
Hispanic American Firms	25,758	\$1,924,633	2,729	\$1,313,017
Total Women-Owned Firms	21,729	\$6,252,041	4,356	\$5,769,318
PERCENTAGE OF MARKETPLACE				
Total Firms	100.00%	100.00%	100.00%	100.00%
African American Firms	9.56%	0.72%	1.72%	0.49%
Native American Firms	0.80%	0.03%	0.16%	S
Asian American Firms	17.32%	2.19%	5.99%	1.85%
Hispanic American Firms	19.84%	2.56%	8.29%	1.84%
Total Women-Owned Firms	16.73%	8.33%	13.23%	8.07%
DISPARITY INDEX				
		ALL FIRMS		EMPLOYER FIRMS
Total Firms		100.00		100.00
African American Firms		7.55		28.67
Native American Firms		3.89		S
Asian American Firms		12.65		30.95
Hispanic American Firms		12.92		22.16
Total Women-Owned Firms		49.77		61.01

Source: U.S. Census Bureau, 2012 Survey of Business Owners (SBO) data.

PROFESSIONAL SERVICES

Table G-2 shows the availability, sales, and disparity results for Professional Services. There were 373,057 Professional Services firms (all firms) in 2012, of which 26.51 percent were owned by minorities and 11.46 were women-owned.

- ◆ African American firms (disparity index of 2.31) were substantially underutilized, accounting for 7.10 percent of all firms and 0.16 percent of sales.
- ◆ Asian American firms (disparity index of 8.56) were substantially underutilized, accounting for 10.82 percent of all firms and 0.93 percent of sales.
- ◆ Hispanic American firms (disparity index of 4.15) were substantially underutilized, accounting for 8.16 percent of all firms and 0.34 percent of sales.
- ◆ Native American firms (disparity index of 2.78) were substantially underutilized, accounting for 0.43 percent of all firms and 0.01 percent of sales.
- ◆ Total Women-owned firms (disparity index of 6.70) were substantially underutilized, accounting for 11.46 percent of all firms and 0.77 percent of sales.

As a subset of these, there were 72,523 Professional Services employer firms in 2012, of which 13.01 percent were owned by minorities and 5.62 percent were women-owned.

- ◆ African American firms (disparity index 3.80) were substantially underutilized, accounting for 1.72 percent of employer firms and 0.07 percent of sales.
- ◆ Asian American firms (disparity index of 8.69) were substantially underutilized, accounting for 8.12 percent of employer firms and 0.71 percent of sales.
- ◆ Hispanic American firms (disparity index of 7.92) were substantially underutilized, accounting for 3.03 percent of employer firms and 0.24 percent of sales.
- ◆ Data for Native American were limited; therefore, private sector disparities were not calculated.
- ◆ Total Women-owned firms (disparity index of 10.32) were substantially underutilized, accounting for 5.62 percent of all firms and 0.58 percent of sales.

TABLE G-2
PRIVATE SECTOR CENSUS DISPARITIES: PROFESSIONAL SERVICES
U.S. CENSUS 2012 SURVEY OF BUSINESS OWNERS, RELEVANT MARKET AREA

BUSINESS OWNERSHIP CLASSIFICATION	ALL FIRMS (#)	ALL FIRMS, SALES (\$1,000)	EMPLOYER FIRMS (#)	EMPLOYER FIRMS SALES (\$1,000)
All Firms	373,057	\$628,845,847	72,523	\$612,433,977
African American Firms	26,500	\$1,032,545	1,251	\$401,280
Native American Firms	1,591	\$74,538	98	\$8,315
Asian American Firms	40,376	\$5,826,691	5,889	\$4,321,385
Hispanic American Firms	30,435	\$2,129,661	2,199	\$1,470,460
Total Women-Owned Firms	42,761	\$4,829,887	4,076	\$3,551,048
PERCENTAGE OF MARKETPLACE				
All Firms	100.00%	100.00%	100.00%	100.00%
African American Firms	7.10%	0.16%	1.72%	0.07%
Native American Firms	0.43%	0.01%	0.14%	S
Asian American Firms	10.82%	0.93%	8.12%	0.71%
Hispanic American Firms	8.16%	0.34%	3.03%	0.24%
Total Women-Owned Firms	11.46%	0.77%	5.62%	0.58%
DISPARITY INDEX				
		ALL FIRMS		EMPLOYER FIRMS
All Firms		100.00		100.00
African American Firms		2.31		3.80
Native American Firms		2.78		1.00
Asian American Firms		8.56		8.69
Hispanic American Firms		4.15		7.92
Total Women-Owned Firms		6.70		10.32

Source: U.S. Census Bureau, 2012 Survey of Business Owners (SBO) data.

STANDARDIZED SERVICES

Table G-3 shows the availability, sales, and disparity results for Standardized Services. There were 1,013,491 Standardized Services firms (all firms) in 2012, of which 43.47 percent were owned by minorities and 36.18 percent were women-owned.

- ♦ African American firms (disparity index of 3.77) were substantially underutilized, accounting for 12.79 percent of all firms and 0.48 percent of sales.
- ♦ Asian American firms (disparity index of 14.18) were substantially underutilized, accounting for 14.76 percent of all firms and 2.09 percent of sales.
- ♦ Hispanic American firms (disparity index of 4.09) were substantially underutilized, accounting for 15.24 percent of all firms and 0.62 percent of sales.
- ♦ Native American firms (disparity index of 2.28) were substantially underutilized, accounting for 0.67 percent of all firms and 0.02 percent of sales.
- ♦ Total Women-owned firms (disparity index of 10.58) were substantially underutilized, accounting for 36.18 percent of all firms and 3.83 percent of sales.

As a subset of these, there were 179,043 Standardized Services employer firms in 2012, of which 23.41 percent were owned by minorities and 24.45 percent were women-owned.

- ♦ African American firms (disparity index of 7.35) were substantially underutilized, accounting for 2.34 percent of employer firms and 0.17 percent of sales.
- ♦ Asian American firms (disparity index of 10.60) were substantially underutilized, accounting for 16.06 percent of employer firms and 1.70 percent of sales.
- ♦ Hispanic American firms (disparity index of 6.06) were substantially underutilized, accounting for 4.85 percent of employer firms and 0.29 percent of sales.
- ♦ Data for Native American were limited; therefore, private sector disparities were not calculated.
- ♦ Total Women-owned firms (disparity index of 12.12) were substantially underutilized, accounting for 24.45 percent of employer firms and 2.96 percent of sales.

TABLE G-3
PRIVATE SECTOR CENSUS DISPARITIES: STANDARDIZED SERVICES
U.S. CENSUS 2012 SURVEY OF BUSINESS OWNERS, RELEVANT MARKET AREA

BUSINESS OWNERSHIP CLASSIFICATION	ALL FIRMS (#)	ALL FIRMS, SALES (\$1,000)	EMPLOYER FIRMS (#)	EMPLOYER FIRMS SALES (\$1,000)
All Firms	1,013,491	\$926,388,003	179,043	\$894,433,120
African American Firms	129,637	\$4,471,895	4,192	\$1,539,396
Native American Firms	6,819	\$141,853	282	\$8,315
Asian American Firms	149,629	\$19,390,548	28,759	\$15,227,356
Hispanic American Firms	154,483	\$5,780,682	8,679	\$2,628,453
Total Women-Owned Firms	366,652	\$35,471,131	43,777	\$26,501,915
PERCENTAGE OF MARKETPLACE				
All Firms	100.00%	100.00%	100.00%	100.00%
African American Firms	12.79%	0.48%	2.34%	0.17%
Native American Firms	0.67%	0.02%	0.16%	S
Asian American Firms	14.76%	2.09%	16.06%	1.70%
Hispanic American Firms	15.24%	0.62%	4.85%	0.29%
Total Women-Owned Firms	36.18%	3.83%	24.45%	2.96%
DISPARITY INDEX				
	ALL FIRMS		EMPLOYER FIRMS	
All Firms	100.00		100.00	
African American Firms	3.77		7.35	
Native American Firms	2.28		0.59	
Asian American Firms	14.18		10.60	
Hispanic American Firms	4.09		6.06	
Total Women-Owned Firms	10.58		12.12	

Source: U.S. Census Bureau, 2012 Survey of Business Owners (SBO) data.

GOODS OR COMMODITIES

Table G-4 shows the availability, sales, and disparity results for Goods or Commodities. There were 218,614 Goods or Commodities firms (all firms) in 2012, of which 42.08 percent were owned by minorities and 36.55 percent were women-owned.

- ♦ African American firms (disparity index of 2.58) were substantially underutilized, accounting for 8.22 percent of all firms and 0.21 percent of sales.
- ♦ Asian American firms (disparity index of 27.63) were substantially underutilized, accounting for 20.08 percent of all firms and 5.55 percent of sales.
- ♦ Hispanic American firms (disparity index of 9.32) were substantially underutilized, accounting for 13.42 percent of all firms and 1.25 percent of sales.
- ♦ Data for Native American were withheld; therefore, private sector disparities were not calculated.
- ♦ Total Women-owned firms (disparity index of 19.98) were substantially underutilized, accounting for 36.55 percent of all firms and 7.30 percent of sales.

As a subset of these, there were 91,872 Goods or Commodities employer firms in 2012, of which 32.41 percent were owned by minorities and 25.44 were women-owned.

- ♦ African American firms (disparity index of 10.62) were substantially underutilized, accounting for 1.29 percent of all firms and 0.14 percent of sales.
- ♦ Asian American firms (disparity index of 23.52) were substantially underutilized, accounting for 23.09 percent of all firms and 5.43 percent of sales.
- ♦ Hispanic American firms (disparity index of 14.83) were substantially underutilized, accounting for 7.87 percent of all firms and 1.17 percent of sales.
- ♦ Data for Native American were limited; therefore, private sector disparities were not calculated.
- ♦ Total Women-owned firms (disparity index of 27.85) were substantially underutilized, accounting for 25.44 percent of all firms and 7.08 percent of sales.

TABLE G-4
PRIVATE SECTOR CENSUS DISPARITIES: GOODS OR COMMODITIES
U.S. CENSUS 2012 SURVEY OF BUSINESS OWNERS, RELEVANT MARKET AREA

BUSINESS OWNERSHIP CLASSIFICATION	ALL FIRMS (#)	ALL FIRMS, SALES (\$1,000)	EMPLOYER FIRMS (#)	EMPLOYER FIRMS SALES (\$1,000)
All Firms	218,614	\$726,954,606	91,872	\$718,305,708
African American Firms	17,970	\$1,538,868	1,187	\$986,034
Native American Firms	806	\$7,406	144	\$2,348
Asian American Firms	43,890	\$40,331,349	21,212	\$39,014,746
Hispanic American Firms	29,328	\$9,086,178	7,229	\$8,380,341
Total Women-Owned Firms	79,893	\$53,084,642	23,371	\$50,886,794
PERCENTAGE OF MARKETPLACE				
All Firms	100.00%	100.00%	100.00%	100.00%
African American Firms	8.22%	0.21%	1.29%	0.14%
Native American Firms	0.37%	0.00%	0.16%	S
Asian American Firms	20.08%	5.55%	23.09%	5.43%
Hispanic American Firms	13.42%	1.25%	7.87%	1.17%
Total Women-Owned Firms	36.55%	7.30%	25.44%	7.08%
DISPARITY INDEX				
		ALL FIRMS		EMPLOYER FIRMS
All Firms		100.00		100.00
African American Firms		2.58		10.62
Native American Firms		0.28		0.21
Asian American Firms		27.63		23.52
Hispanic American Firms		9.32		14.83
Total Women-Owned Firms		19.98		27.85

Source: U.S. Census Bureau, 2012 Survey of Business Owners (SBO) data.

SBO CONCLUSIONS

The SBO analysis shows consistent underutilization of M/WBE firms relative to their availability in the market area.

Further, each of the five procurement categories analyzed showed substantial disparity among defined M/WBE classes where sufficient data were available.

G.3 ANALYSIS OF RACE, ETHNICITY, AND GENDER EFFECTS ON SELF-EMPLOYMENT AND EARNINGS

This section examines further evidence regarding the over-arching research question of whether disparities exist in the private sector, and also addresses the two more specific questions:

1. *Are racial, ethnic, and gender minority groups less likely than nonminority males (non-M/WBEs) to be self-employed?*
2. *Does racial, ethnic, and gender status have an impact on self-employed individuals' earnings?*

This is achieved through an examination of the effects of race, ethnicity, and gender, alongside controls for individual economic and demographic characteristics, on individuals' participation in the private sector as self-employed business operators, as well as the effects of these variables on their earnings. The analysis is targeted to four categories of private sector business activity (Construction, Professional Services, Other Services, and Goods & Supplies), that generally align with the City procurement categories defined for the study, noting that Professional Services also encompasses Architecture and Engineering, due to observations in this category being too limited in this subset to support separate analysis.

Adopting the methodology and variables employed by a City of Denver disparity study (see *Concrete Works v. City and County of Denver*¹⁷²), we use Public Use Microdata Samples (PUMS) data derived from the 2015 American Community Survey (ACS), to which we apply appropriate regression statistics to draw conclusions.

LINKS TO BUSINESS FORMATION AND MAINTENANCE

Research in economics consistently finds group differences by race, ethnicity, and gender in rates of business formation.¹⁷³ We know, for instance, that in general most minorities and women in the general population¹⁷⁴ have a lower median age than do nonminority males (ACS PUMS, 2015) and that, in general, the likelihood of being self-employed increases with age (ACS PUMS, 2015). An examination of these variables within the context of a disparity study, therefore, seeks to control for these other important demographic and economic variables in conjunction with race, ethnicity, and gender – since they also influence group rates of business formation – to determine if we can assert that inequities specific to minorities and women are demonstrably present. Questions about marketplace dynamics affecting self-employment—or, more specifically, the odds of being able to form one's own business and then to excel (i.e., generate earnings growth)—are at the heart of disparity analysis research.

¹⁷² *Concrete Works v. City and County of Denver*, 321 F.3 950 (10th Cir. 2003).

¹⁷³ See *Journal of Econometrics*, Vol. 61, Issue 1, devoted entirely to the econometrics of labor market discrimination and segregation.

¹⁷⁴ Minority groups here refer to African American, Asian Americans, Hispanic Americans and Native Americans.

STATISTICAL MODELS AND METHODS

To answer the research questions identified for this section, we employed two multivariate regression techniques, respectively: (1) logistic regression and (2) linear regression. Logistic regression is an econometric method that allows for analyzing dichotomous dependent variables. The logistics regression is used to answer the first question “are racial, ethnic, and gender minority groups less likely than nonminority males (non-M/WBEs) to be self-employed?” The results can then be translated into log likelihoods that allow for an examination of how likely one variable is to be true when compared to another variable. Linear regression is an econometric method that helps explain the linear relationship between the dependent variable and the independent variables – how substantially and in what direction each of the independent variables influence the dependent variable. This will help analyze the direct impact that being part of a specific minority or gender group has on earnings, answering the second question.

To understand the appropriate application of these regression techniques, it is helpful to explore in greater detail the variables inherent in these questions. There are two general categories of variables employed in the regression techniques: (1) dependent variables and (2) independent variables.

- ◆ Dependent variables are the phenomena to be explained by influences such as age, race, gender, and disability status (i.e., the independent or “explanatory” variables).
- ◆ The first dependent variable is the probability of self-employment status, which is a binary, categorical variable based on two possible values: 0 (not self-employed) versus 1 (self-employed).
 - Logistic regression is appropriately used to perform an analysis in which the dependent variable is binary and categorical, and therefore was employed for the analysis of self-employment.¹⁷⁵
- ◆ The second dependent variable is earnings from self-employment, which is a continuous variable with many possible values.
 - Continuous variables are best explained using simple linear regression.

¹⁷⁵ Logistical regression, or logit, models generate predicted probabilities that are almost identical to those calculated by a probit procedure, used in *Concrete Works v. City and County of Denver* case. Logit, however, has the added advantage of dealing more effectively with observations at the extremes of a distribution. For a complete explanation, see *Interpreting Probability Models* (T.F. Liao, Text 101 in the Sage University series).

THE INFLUENCES OF RACE, ETHNICITY, AND GENDER ON SELF EMPLOYMENT

To derive a set of variables known to predict employment status (self-employed/not self-employed), we used the 2015 U.S. Census ACS five-percent PUMS data. Logistic regression was used to calculate the probability of being self-employed, the dependent variable, with respect to socioeconomic and demographic characteristics selected for their potential to influence the likelihood of self-employment. The sample for the analysis was limited to labor force participants who met the following criteria:

- ◆ Resident of NYC MSA¹⁷⁶.
- ◆ Self-employed in construction, professional services, other services, architecture and engineering,¹⁷⁷ or goods and supplies.
- ◆ Employed full-time (more than 35 hours a week).
- ◆ 18 years of age or older.

Next, we derived the following variables¹⁷⁸ hypothesized as predictors of employment status:

- ◆ **Race and Gender:** African American, Asian American, Hispanic American, Native American, nonminority woman, nonminority male.
- ◆ **Availability of Capital:** Homeownership, home value, mortgage rate, unearned income, residual income.
- ◆ Marital Status.
- ◆ Ability to Speak English Well.
- ◆ **Disability Status:** From individuals' reports of health-related disabilities.
- ◆ **Age and Age Squared:** Squaring the age variable acknowledges the positive, curvilinear relationship between each year of age and earnings.
- ◆ Owner's Level of Education.
- ◆ Number of Individuals Over the Age of 65 Living in Household.
- ◆ Number of Children Under the Age of 18 Living in Household.

This analysis examined the statistical effects of these variables on the likelihood of being self-employed in the NYC MSA. From the inverse of this value, we can interpret a likelihood value of its effect on self-employment. The results are interpretable based on the inverse of the "odds ratios". For example, the "odds ratio" for an African American is 0.372 as seen in the top portion of [Table G-6](#), while the inverse of this is 2.69, as seen in the lower portion of this table. This inverse value means that a nonminority male is 2.69 times more likely to be self-employed than an African American. Comparisons are made to

¹⁷⁶ ACS PUMS data does not include county geographic breaks so the NYC MSA was used as it is similar to the relevant market area.

¹⁷⁷ Due to inadequate sample size for all races in the architecture and engineering PUMS 2015 data, the architecture and engineering categories were merged with the professional services category.

¹⁷⁸ The variables used in this analysis were modeled after those incorporated in the same analysis from *Concrete Works v. City and County of Denver*.

nonminority males as a control group, where the influence of any of the race, ethnicity, or gender variables is considered absent. In this sense, the circumstance of the nonminority male is considered to be a baseline for what might be expected for self-employment rates for this market – with race, ethnicity, or gender variables being tested for their positive or negative influence.

TABLE G-6
SELF-EMPLOYMENT ODDS RATIOS AND THEIR INVERSES FOR MINORITY GROUPS RELATIVE TO NONMINORITY MALES AFTER CONTROLLING FOR DEMOGRAPHIC AND ECONOMIC CHARACTERISTICS

BUSINESS OWNERSHIP CLASSIFICATION	ALL INDUSTRIES	CONSTRUCTION	PROFESSIONAL SERVICES	OTHER SERVICES	GOODS & SUPPLIES
ODDS-RATIOS					
African American Firms	0.372	0.340	0.260	0.487	0.656
Hispanic American Firms	0.560	0.562	0.439	0.580	0.689
Asian American Firms	0.643	0.490	0.453	0.847	1.015
Native American Firms	0.941	0.605	0.609	1.303	1.977
Nonminority Female Firms	0.465	0.294	0.358	0.774	0.690
INVERSE OF ODDS-RATIOS					
African American Firms	2.69	2.94	3.85	2.05	1.52
Hispanic American Firms	1.79	1.78	2.28	1.72	1.45
Asian American Firms	1.56	2.04	2.21	1.18	0.99
Native American Firms	1.06	1.65	1.64	0.77	0.51
Nonminority Female Firms	2.69	2.94	3.85	2.05	1.52

Source: PUMS data from 2015 American Community Survey (NYC, MSA) and MGT, calculations using SPSS Statistics software. Note: Shading and **bold** indicates the estimated “odds ratio” for the group was statistically significant at 95% confidence interval¹⁷⁹. The architecture and engineering business industry was excluded from this analysis because of the insufficient data.

The findings show that racial, ethnic, and gender minority groups are nearly universally less likely than nonminority males to be self-employed.

With respect to the over-arching research question, these findings again communicate that disparities do exist in the market. Within this circumstance and in response to the specific research question, it is also evident that racial, ethnic, and gender variables have a statistically significant negative impact on rates of self-employment after other factors are controlled for.

¹⁷⁹ Statistically significant is the likelihood that a relationship between two or more variables is caused by something other than random chance. MGT incorporates the statistical 95% confidence interval. This means that if the same population is sampled on numerous occasions and interval estimates are made on each occasion, the resulting intervals would bracket the true population parameter in approximately 95% of the cases.

THE INFLUENCES OF RACE, ETHNICITY, AND GENDER ON INDIVIDUAL EARNINGS

To explore whether there are any measurable impacts on earnings, we compared self-employed, minority, and female entrepreneurs' earnings to those of nonminority males in the NYC MSA, when the effect of other demographic and economic characteristics were controlled or neutralized. That is, we were able to examine the earnings of self-employed individuals of similar education levels, ages, etc., to permit earnings comparisons more purely by race, ethnicity, and gender.

First, we derived a set of independent variables known to predict earnings, including:

- ◆ **Race and Gender:** African American, Asian American, Hispanic American, Native American, nonminority woman, nonminority males.
- ◆ **Availability of Capital:** Homeownership, home value, mortgage rate, unearned income, residual income.
- ◆ Marital Status.
- ◆ Ability to Speak English Well.
- ◆ **Disability Status:** From individuals' reports of health-related disabilities.
- ◆ **Age and Age Squared:** Squaring the age variable acknowledges the positive, curvilinear relationship between each year of age and earnings.
- ◆ Owner's Level of Education.

For the dependent variable, we used 2015 wages from employment for self-employed individuals, as reported in the 5 percent PUMS data.

This analysis examined the statistical effects of these variables on income from self-employment for business owners in NYC MSA. As yielded by the linear regression analysis, each number in **Table G-7** represents a percent change in earnings associated with the introduction of the variable (business ownership classification) in the left-hand column. For example, across all industries, the adjustment factor for an African American is -0.558, meaning that an African American would be predicted to earn 55.80 percent less than a nonminority male, all other variables considered or controlled for.

TABLE G-7
EARNINGS ELASTICITIES OF MINORITY GROUPS RELATIVE TO NONMINORITY MALES AFTER CONTROLLING FOR
DEMOGRAPHIC AND ECONOMIC CHARACTERISTICS

BUSINESS OWNERSHIP CLASSIFICATION	ALL INDUSTRIES	CONSTRUCTION	PROFESSIONAL SERVICES	OTHER SERVICES	GOODS & SUPPLIES
African American Firms	-0.558	-0.440	-0.608	-0.557	-0.437
Hispanic American Firms	-0.574	-0.499	-0.476	-0.543	-0.602
Asian American Firms	-0.449	-0.391	-0.180	-0.527	-0.361
Native American Firms	-0.463	-0.946	-0.757	-0.098	-0.302
Nonminority Female Firms	-0.328	-0.235	-0.524	-0.243	-0.363

Source: PUMS data from 2015 American Community Survey (NYC, MSA) and MGT, calculations using SPSS Statistics software. Note: Shading and **bold** indicates the estimated “elasticities” for the group were statistically significant at 95% confidence interval. The architecture and engineering business industry was excluded from this analysis because of insufficient data. In terms of the regression “elasticity” means the percent change resulting by being a member of one of the M/WBE groups.

The findings provide further positive evidence that disparities exist in the private sector of the City’s market area. The findings also provide affirmative evidence to the more specific questions regarding impacts on earning, demonstrating that self-employed racial, ethnic, and gender minority groups earn less than their nonminority male counterparts, all variables considered.

G.4 CONCLUSIONS

Analysis of the U.S. Census 2012 SBO data and the PUMS 2015 data demonstrate, in response to the over-arching research question driving this analysis, that disparities do exist for M/WBE firms operating in the private sector within the City’s market area. Thus, based on guidance offered by the courts into this domain, the City may have a compelling interest to continue its current M/WBE program to avoid becoming a passive participant to discrimination.

To the more specific research questions:

- ◆ Findings from the U.S. Census 2012 SBO data indicate that there are substantial disparities for most M/WBE firms across industry sectors resembling the procurement categories identified for this study.
- ◆ Findings from the 2015 PUMS data indicate that:
 - M/WBE firms were significantly less likely than nonminority males to be self-employed.
 - If they were self-employed, M/WBE firms earned significantly less in 2015 than did self-employed nonminority males.

This evidence stands alongside the disparities observed in public sector contracting to illustrate the substantial inequities that continue to exist in the City’s marketplace.

Appendix H: Survey of Vendors
Demographics

DISPARITY STUDY

City of New York



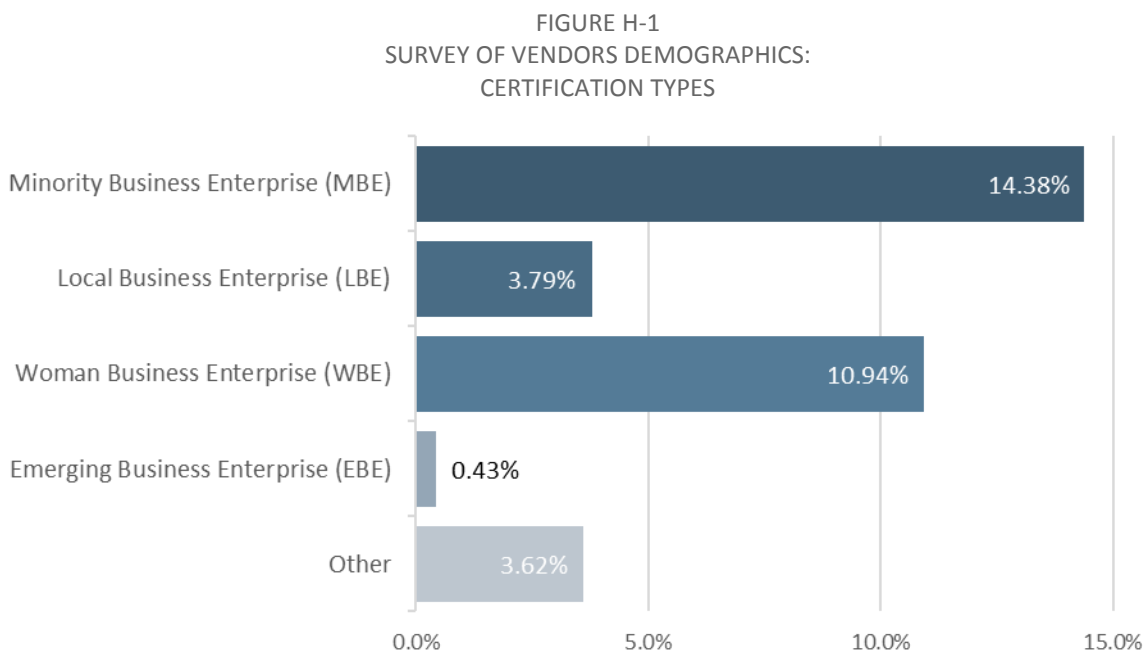
H.1 INTRODUCTION

This section details the demographics of the survey of vendors, described in **Chapter 5**, which was administered to collect information from the City’s vendors regarding their opinions and perceptions of their experiences working with the City, or on City projects as subcontractors.

H.2 DEMOGRAPHICS

The self-reported demographic characteristics of the respondents to the survey of vendors are provided in the figures that follow.

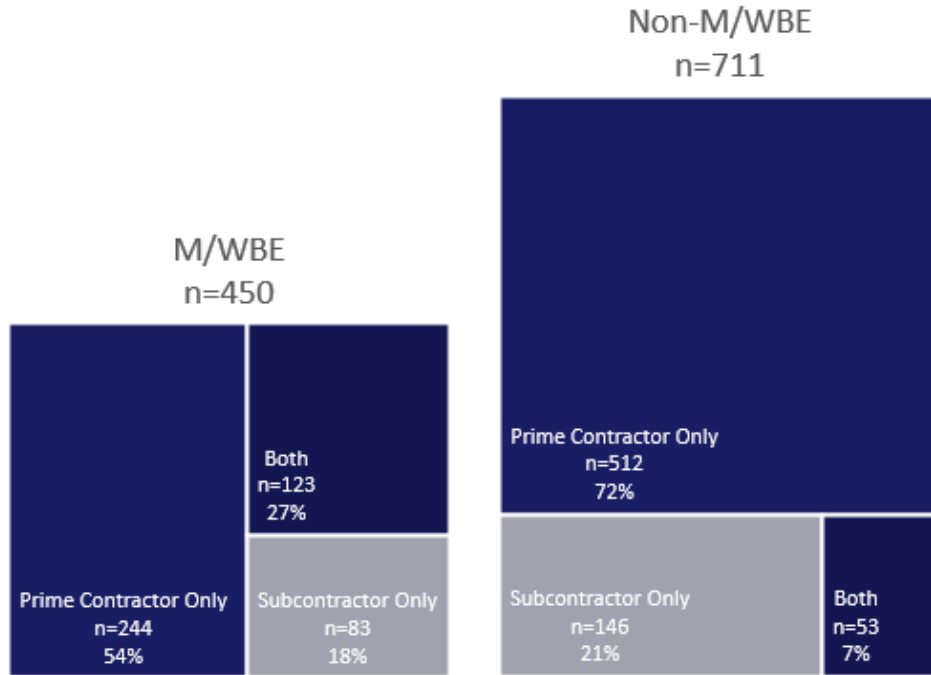
In **Figure H-1**, we see the reported types of certifications held by respondents. Minority (14.38%) and women-owned (10.94%) certifications reflect much larger proportions than Local Business Enterprises (3.79%) and Emerging Business Enterprises (0.43%).



Note: “Other” responses include federal Small Business Administration designations as well as other specific state and municipal-government designations deemed by the respondents to be outside of the other delineated categories.

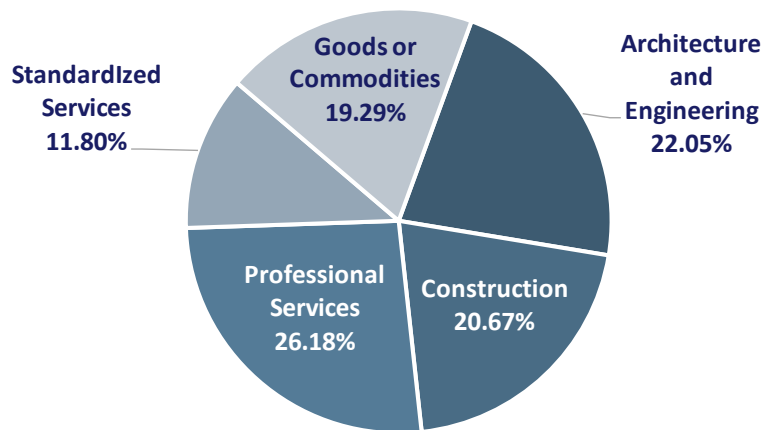
Figure H-2 depicts the numbers and relative proportions of respondents by M/WBE and non-M/WBE status in concert with the contracting roles they typically pursue. The chart conveys that smaller percentages of M/WBE firms exclusively seek prime contractor roles (54% versus 72% for non-M/WBEs).

FIGURE H-2
 SURVEY OF VENDOR RESPONDENTS
 BY CONTRACTING ROLE AND M/WBE STATUS



Knowing the primary line of business provides insight into the experiences and perceptions of firms when conducting business or attempting to conduct business with the City, its primes, or in the private sector. The primary procurement categories of firms responding to this survey question are illustrated in **Figure H-3**. By order of representation, 26.18 percent of these survey respondents worked in Professional Services, followed by 22.05 percent in Architecture and Engineering, 20.67 percent in Construction, 19.29 percent in Goods or Commodities, and 11.80 percent in Standardized Services.

FIGURE H-3
SURVEY OF VENDORS DEMOGRAPHICS:
INDUSTRY CLASSIFICATIONS OF RESPONDENTS



The next two figures show the distributions of respondents by M/WBE category and size of firm, in terms of average number of employees over the last three years. **Figure H-4** shows the relative proportions of firms with 10 or fewer employees. Proportions of M/WBE firms with 10 or fewer employees ranged from 76.6 percent of Nonminority Female firms to 100 percent of Native American firms.

FIGURE H-4
SURVEY OF VENDORS DEMOGRAPHICS
PROPORTION OF FIRMS BY M/WBE CATEGORY WITH 10 OR FEWER EMPLOYEES

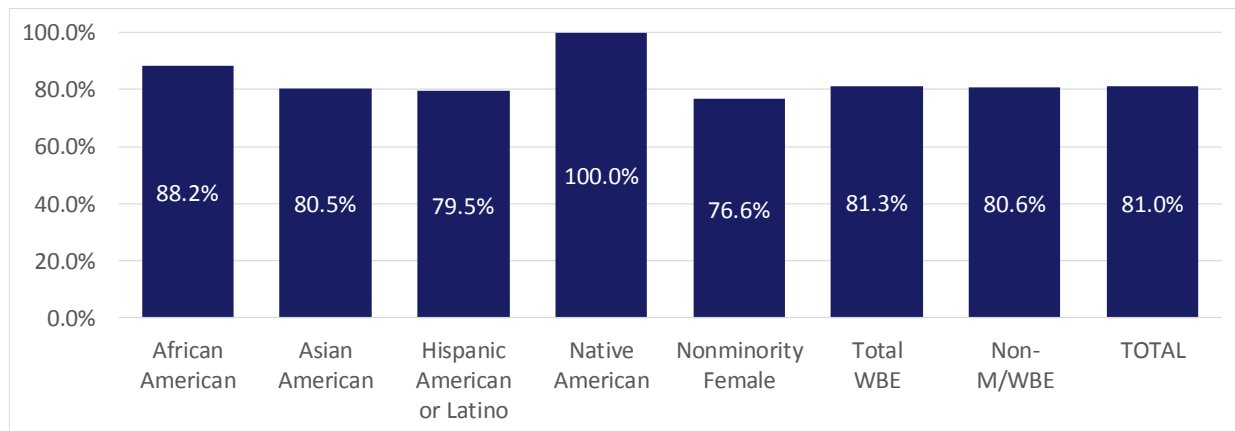
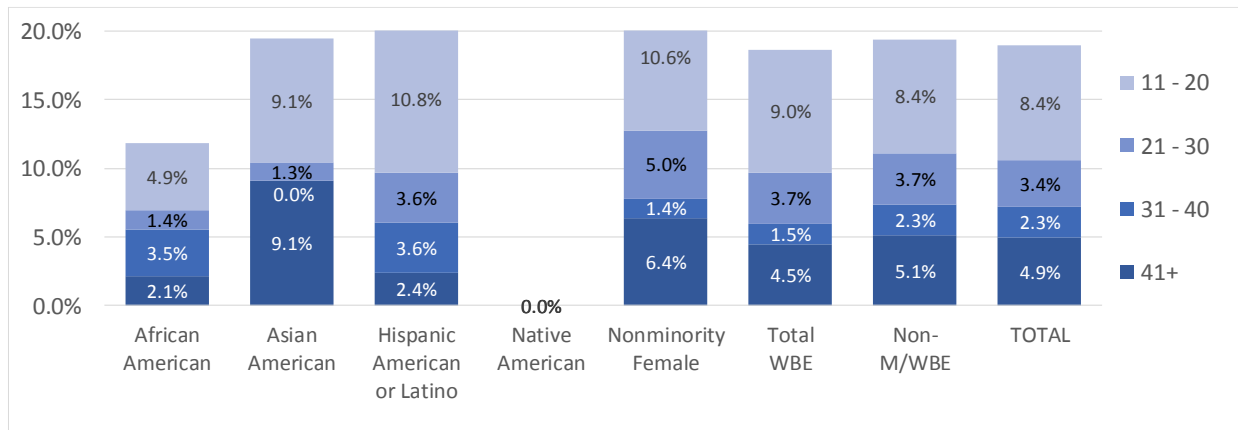


Figure H-5 shows the segmentation among larger firms. Asian American firms show highest proportion of the largest size category of 41 or more employees (9.1% of respondents), followed by Nonminority Female firms (6.4%) and non-M/WBEs (5.1%).

FIGURE H-5
 SURVEY OF VENDORS DEMOGRAPHICS
 PROPORTIONS OF FIRMS BY M/WBE CATEGORY WITH GREATER THAN 10 EMPLOYEES



In **Table H-1**, the proportions of firms by M/WBE category and annual gross revenues are depicted. These follow closely with the employee-based size depictions presented above, with Nonminority Female firms showing the largest proportions of firms earning \$300 thousand or more. Otherwise – with the exception of Native American firms, which represent only a small proportion of the sample – we see smaller proportions of the larger revenue categories among M/WBE firms relative to the non-M/WBE average.

TABLE H-1
SURVEY OF VENDORS DEMOGRAPHICS
RESPONDENTS BY M/WBE CATEGORY AND 2015 GROSS REVENUES

Gross Revenues	African American	Asian American	Hispanic American or Latino	Native American	Non-minority Female	Total WBE	Non-M/WBE	TOTAL
Up to \$50,000	29.9%	10.9%	13.5%	0.0%	6.9%	17.9%	3.9%	8.6%
\$50,001 to \$100,000	11.8%	17.2%	23.0%	0.0%	11.5%	12.2%	14.3%	14.4%
\$100,001 to \$300,000	26.8%	32.8%	27.0%	33.3%	29.0%	25.6%	33.3%	31.4%
\$300,001 to \$500,000	7.9%	15.6%	9.5%	0.0%	10.7%	10.6%	13.3%	12.1%
\$500,001 to \$1 million	9.4%	4.7%	6.8%	33.3%	13.0%	10.6%	11.3%	10.6%
\$1,000,001 to \$3 million	7.9%	10.9%	14.9%	33.3%	12.2%	12.6%	10.9%	11.1%
\$3,000,001 to \$5 million	3.1%	1.6%	0.0%	0.0%	5.3%	3.7%	4.0%	3.6%
\$5,000,001 to \$10 million	2.4%	1.6%	4.1%	0.0%	6.9%	4.5%	4.3%	4.2%
Over \$10 million	0.8%	4.7%	1.4%	0.0%	4.6%	2.4%	4.7%	3.9%

Further exploring size, firms who typically pursue work as primes were asked to indicate the range that best approximates their largest contract awarded during the study period. **Table H-2** illustrates distributions of firms by M/WBE category across contract size ranges. Larger proportions of firms in all M/WBE categories besides Native Americans have performed contracts in excess of \$1 million relative to Non-M/WBEs.

TABLE H-2
 SURVEY OF VENDORS DEMOGRAPHICS
 LARGEST CONTRACT AWARD AS PRIME

Largest Contract as Prime	African American	Asian American	Hispanic American or Latino	Native American	Non-minority Female	Total WBE	Non-M/WBE	TOTAL
Up to \$50,000	35.8%	35.5%	42.4%	0.0%	27.5%	30.2%	39.4%	36.8%
\$50,001 to \$100,000	17.0%	9.7%	21.2%	0.0%	11.6%	18.1%	13.1%	13.7%
\$100,001 to \$200,000	11.3%	22.6%	9.1%	0.0%	17.4%	15.5%	10.6%	12.5%
\$200,001 to \$300,000	1.9%	6.5%	6.1%	0.0%	10.1%	6.0%	9.7%	8.3%
\$300,001 to \$400,000	7.5%	3.2%	0.0%	0.0%	4.3%	6.0%	4.7%	4.5%
\$400,001 to \$500,000	1.9%	3.2%	3.0%	0.0%	4.3%	3.4%	5.5%	4.5%
\$500,001 to \$1 million	9.4%	3.2%	6.1%	100.0%	5.8%	7.8%	5.5%	6.4%
Over \$1 million	15.1%	16.1%	12.1%	0.0%	18.8%	12.9%	11.4%	13.4%

Table H-3 illustrates the ranges of the largest subcontracts awarded to respondents by M/WBE category during the study period. Of respondent firms, Asian Americans, Nonminority Females, and Native Americans have the largest proportions of firms winning subcontracts over \$1 million.

TABLE H-3
SURVEY OF VENDORS DEMOGRAPHICS:
LARGEST CONTRACT AWARDED AS SUBCONTRACTOR

Largest Subcontract	African American	Asian American	Hispanic American or Latino	Native American	Nonminority Female	Total WBE	Non-M/WBE	TOTAL
Up to \$50,000	48.9%	40.0%	43.5%	0.0%	15.4%	37.1%	43.8%	41.6%
\$50,001 to \$200,000	19.1%	13.3%	21.7%	0.0%	42.3%	29.0%	28.4%	26.6%
\$200,001 to \$500,000	23.4%	26.7%	21.7%	0.0%	19.2%	19.4%	19.1%	20.4%
\$500,001 to \$1,000,000	0.0%	0.0%	8.7%	0.0%	3.8%	3.2%	3.1%	2.9%
Over \$1,000,000	8.5%	20.0%	4.3%	100.0%	19.2%	11.3%	5.6%	8.4%

Table H-4 illustrates the number of years of experience that the firm owner(s) have in their primary line of business, distributed by M/WBE category. Across all categories, approximately half of respondent firms have been in business for more than 20 years.

TABLE H-4
SURVEY OF VENDORS DEMOGRAPHICS:
YEARS IN BUSINESS BY M/WBE CATEGORY

Years in Business	African American	Asian American	Hispanic American or Latino	Native American	Nonminority Female	Total WBE	Non-M/WBE	TOTAL
0 to 5 years	11.7%	11.7%	2.4%	0.0%	6.4%	8.2%	10.8%	9.8%
6 to 10 years	16.6%	18.2%	15.5%	0.0%	9.2%	11.9%	16.4%	15.6%
11 to 15 years	15.9%	19.5%	19.0%	33.3%	5.7%	11.9%	11.5%	12.5%
16 to 20 years	13.8%	13.0%	13.1%	0.0%	13.5%	13.1%	11.9%	12.5%
More than 20 years	42.1%	37.7%	50.0%	66.7%	65.2%	54.9%	49.4%	49.7%

Table H-5 displays educational attainment of primary business owner by M/WBE classification. Attainment rates vary widely among different categories. Over 33 percent of the Nonminority Females surveyed had post-graduate degrees, versus an overall universe average of fewer than 15 percent.

TABLE H-5
SURVEY OF VENDORS DEMOGRAPHICS:
EDUCATIONAL ATTAINMENT OF PRIMARY OWNER

Highest Level of Education	African American	Asian American	Hispanic American or Latino	Native American	Nonminority Female	Total WBE	Non-M/WBE	TOTAL
Some high school	0.0%	1.3%	1.2%	0.0%	0.7%	0.8%	0.4%	0.5%
High school graduate	2.1%	12.0%	22.6%	33.3%	5.0%	5.6%	6.5%	7.4%
Trade or technical education	7.6%	6.7%	9.5%	0.0%	2.9%	2.6%	8.7%	7.7%
Some college	13.8%	21.3%	27.4%	0.0%	6.4%	9.4%	21.6%	19.1%
College degree	45.5%	41.3%	28.6%	66.7%	51.4%	49.6%	55.0%	50.6%
Post graduate degree	31.0%	17.3%	10.7%	0.0%	33.6%	32.0%	7.8%	14.7%

**APPENDIX I: List of Trade Associations and
Business Organizations**

DISPARITY STUDY

City of New York



Included below is the list of trade associations and business organizations representatives that were contacted as part of the study to 1) keep informed of study activities, 2) assist with outreach to member businesses to promote participation in study activities, and/or 3) participate in stakeholder interviews.

Organization Name
100 Hispanic Women
ACCION East., Inc.
Advertising Women of New York
African American Chamber of Commerce of Westchester and Rockland Counties, Inc.
American Business Women's Association (ABWA) New York City Chapter
American Council of Engineering Companies of New York (ACEC)
American Institute of Architects (AIA) New York Chapter
American Institute of Certified Public Accountants
America's Small Business Development Centers (ASBDC)
Asian American Bar Association
Asian American Consultants of New York
Asian Americans for Equality
Asian Pacific Islander Chamber of Commerce (ACE/NY)
Asian Women in Business
Associated Builders and Contractors (ABC) Empire State Chapter
Associated General Contractors (AGC) of New York State
Association of Minority Enterprises New York (AMENY)
Automotive Recyclers Association of New York
Bedford Stuyvesant Restoration Corporation
Brazilian-American Chamber of Commerce
Bronx Hispanic Chamber of Commerce
Bronxville Chamber of Commerce
Brooklyn Chamber of Commerce
Brooklyn Economic Development Corporation
Brooklyn Hispanic (Kings County) Chamber of Commerce
Building & Construction Trades Council of Greater New York
Building Contractors Association of New York
Building Trades Employers Association (BTEA) of New York City
Business Network International (BNI)
Business Outreach Center (BOC) Network
Caribbean-American Chamber of Commerce
Chamber of Commerce of the Rockaways
Chamber of Commerce of Washington Heights and Inwood
Chinatown Manpower Project
Chinese Chamber of Commerce of New York
City Island Chamber of Commerce
Coney Island Chamber of Commerce
Contractors Association of Greater New York
Council of Urban Professionals
East Harlem Chamber of Commerce
European American Chamber of Commerce New York

Organization Name
Financial Women’s Association
Flushing Business Chinese Association
Flushing Chamber of Commerce & Business Association
Flushing Chinese Business Association
Forest Hills Chamber of Commerce
French - American Chamber of Commerce
Fresh Pond Road Chamber of Commerce
Glendale Chamber of Commerce
Greater Harlem Chamber of Commerce
Greater Jamaica Development Corporation
Greater New York Chamber of Commerce
Greenwich Village Chelsea Chamber of Commerce
HABNET (Haitian- American Business Network) Chamber of Commerce NYC
Harlem Business Alliance
Heat and Frost Insulators, Local 12
Hispanic Chamber of Commerce of Queens
Hispanic Federation
Hispanic National Bar Association
Holistic Chamber of Commerce
Hunts Point Chamber of Commerce
Institute of Internal Auditors (IIA) New York Chapter
Interior Designers for Legislation New York
International Brotherhood of Electrical Workers, Labor Union #3
International Interior Design Association New York Chapter
International Union of Painters and Allied Trades, District Council #9
Jamaica Business Resource Center
Jamaica Chamber of Commerce
Japanese Chamber of Commerce
John F. Kennedy International Airport Chamber of Commerce
Korean Chamber of Commerce and Industry in USA
Latinos in Information Sciences & Technology Association (LISTA) New York
Long Island Chapter of Association of Information Technology Professionals
Long Island Development Corporation
Long Island Hispanic Chamber of Commerce
Manhattan Chamber of Commerce
Maspeth Chamber of Commerce
Metallic Lathers Union Local 46
Metro-Forest Chamber of Commerce
Metropolitan Air Conditioning Contractors of New York
Metropolitan Black Bar Association
Mid-Coast Builders Alliance (MCBA)
Middle Village Chamber of Commerce
National Association of Women Business Owners (NAWBO) New York City Chapter
National Federation of Independent Business (NFIB)
National Hispanic Business Group

Organization Name
National Hispanic Medical Association
National Minority Business Council, Inc.
National Minority Technology Council
National Roofing Contractors Association (NRCA)
National Waste & Recycling Association New York Chapter
New American Chamber of Commerce
New Bronx Chamber of Commerce
New York Association of Consulting Engineers, Inc.
New York Association of Hispanics in Real Estate and Construction (HREC)
New York City Economic Development Corporation
New York City Hispanic Chamber of Commerce
New York State Association of Service & Repair Shops
New York State Builders Association (NYSBA)
New York State Chapter of National Association of Minority Contractors
New York State Coalition of Hispanic Chamber of Commerce
New York State Collectors Association
New York State Council of Landscape Architects
New York State Council of Professional Geologists (NYSCPG)
New York State Society of Professional Engineers (NYSSPE)
New York Tech Council
New York Urban League (NYUL)
New York Women’s Chamber of Commerce (NYWCC)
New York Women’s Foundation
New York/ New Jersey Minority Supplier Development Council
NYC Black Chamber of Commerce
One Hundred Black Men of New York City
Park Slope Chamber of Commerce
Partnership for New York City, Inc.
Plumbers Labor Union #1
Professional Women in Construction New York Chapter
Project Enterprise
Queens Chamber of Commerce
Queens Economic Development Corp.
Real Estate Board of New York
Regional Alliance for Small Contractors
Roosevelt Chamber of Commerce
Society of American Registered Architects (SARA) New York Council
Society of Indo-American Architects and Engineers New York
South Bronx Overall Economic Development Corporation
Staten Island Chamber of Commerce
Staten Island Economic Development Corporation
Subcontractors Trade Association New York
Sunnyside Chamber of Commerce
The Black Institute
The General Contractors Association of New York Incorporated

Organization Name
The New York Institute for Business and Finance (NYIBF)
The New York State Builders Association
Turkish American Chamber of Commerce & Industry
Upper Manhattan Council Assisting Neighbors
Upper Manhattan Empowerment Zone
US Pan Asian American Chamber of Commerce/Northeast Region
West Brighton Local Community Development Corporation (WBLCDC)
West Manhattan Chamber of Commerce
Women Builders Council
Women Presidents' Educational Organization
Women's Housing and Economic Development Corporation [WHEDCO]
Women's Venture Fund
Workshop in Business Opportunities (WIBO)

APPENDIX J: Stakeholder Interview Guide
DISPARITY STUDY

City of New York



INTRODUCTION

Hello, my name is _____. My firm is contracted with MGT Consulting Group (MGT), to solicit input from area trade associations and business organizations, for the City of New York’s Minority and Women Business Enterprise (MWBE) Availability Analysis and Disparity Study. This study will examine the procurement of services and products by the City, the subcontracting practices of prime contractors or service providers contracted with the City, and firms’ experiences doing business in the private sector marketplace.

As an organization that provides professional development, advocacy, and/or business assistance to area businesses, your organization has been selected to participate in a stakeholder interview. During the interview, I will ask you to give details 1) on your partnerships with the City, if any, 2) services you provide to your members or the general business community, 3) issues or concerns expressed by your members regarding doing business or attempting to do business with the City or their primes, and 4) suggested recommendations to improve the City’s procurement process and/or MWBE program.

I’d like to schedule a date and time to meet with you to conduct this very important interview. Our meeting should last about an hour. When can we schedule your interview?

Interview Details

Organization

Name: _____ Date: _____

Interviewee Name: _____

Interviewee Title: _____ Interviewee Phone Number:() _____

Interviewee's Email _____

Type of Organization: _____

Interviewer Name: _____

Questions to Ask Interviewee

1. Please describe your membership structure in terms of industries, size, ethnic/racial makeup, etc.
2. Please discuss your organization's capacity building or business development program(s) provided for your members?
3. Does your organization have a working relationship or partnership with the City? If so, how do you work with the City and which department(s)? *(This includes any committees, councils, etc.)*
4. Are you familiar with the Minority and Women Business Enterprise (MWBE) program administered by the City? If so, what do you know about this program(s)?
5. Are you aware of any barriers minority- and women-owned firms, or local firms, or small firms face with doing business or trying to do business with the City or their primes? If so, what are the barriers?
6. Are you aware of any barriers minority- and women-owned firms, or local firms, or small firms face with doing business or trying to do business with the private sector? If so, what are the barriers?
7. To your knowledge do MWBE firms have greater challenges than non-MWBE firms receiving and maintaining insurance, bonding, and financing required to execute contracts or subcontracts? Explain the basis of your response.
8. In the industry your organization represents, are there barriers to entry for MWBE firms? Explain the basis of your response.
9. Does your organization recruit MWBE firms as a part of your membership campaigns? If so, what are some of the methods you use?

10. Are there any issues that you think are important for the study to address? Why is the issue significant?
11. Do you have suggested recommendations to improve the City's procurement processes? If so, what are they?
12. Do you have suggested recommendation for changes to the MWBE program? If so, what are they?

Additional Notes

On behalf of the City of New York Department of Small Business Services, thank you for your participation in this interview. If you would like more information on the Disparity Study, please visit www.cityofnydisparitystudy.com.